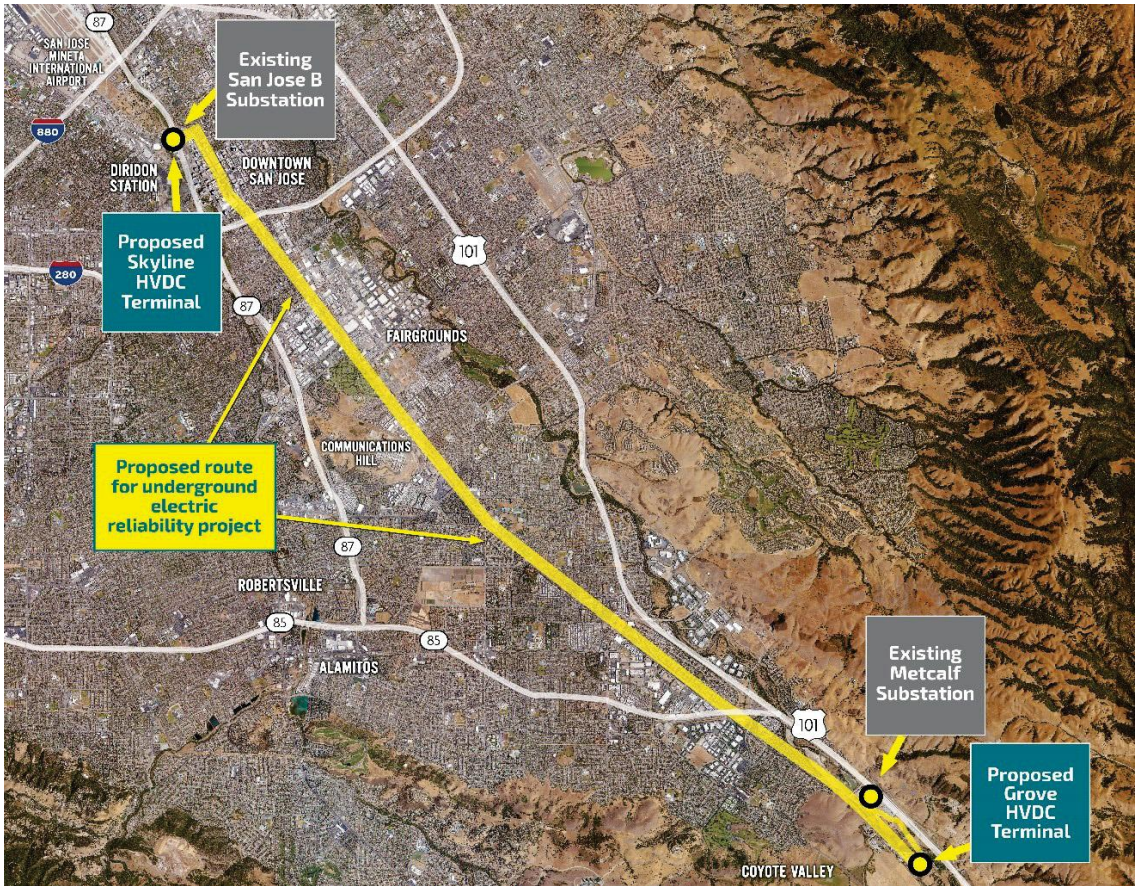
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# APPENDIX B

# PROPONENT'S ENVIRONMENTAL ASSESSMENT




# Proponent's Environmental Assessment for LS Power Grid California, LLC's

## *Power Santa Clara Valley Project*

April 2024

The Proposed Project was approved by the California Independent System Operator (CAISO) to ensure the reliability of the CAISO-controlled grid. The Proposed Project includes two new high-voltage direct current (HVDC) terminals and associated new transmission lines. The new transmission lines include an approximately 13-mile Grove to Skyline 320 kilovolt (kV) direct current (DC) underground transmission line connecting the southern terminal, the Grove terminal, to the northern terminal, the Skyline terminal; an approximately 100-foot overhead Skyline to San Jose B 115 kV alternating current (AC) station 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 Proposed Project is located in the City of San José and County of Santa Clara, California.

### Application A-__-__-__ to the California Public Utilities Commission

*Prepared by KP Environmental, Inc.*
*280 Melba*
*Encinitas, CA 92024*
*Josh Taylor*
*Project Manager*
*949.933.2853*
*jtaylor@kpenvironmental.com*

*Prepared for LS Power Grid California, LLC*
*99 S Almaden Boulevard, Suite 600*
*San José, CA 95113*
*Dustin Joseph*
*Environmental Permitting Director*
*925.808.0291*
*djoseph@lspower.com*

## TABLE OF CONTENTS

**Table of Contents** ..... **TOC-1**
**1.0 Executive Summary** ..... **1-1**
**2.0 Introduction** ..... **2-1**
**3.0 Proposed Project Description** ..... **3-1**
**4.0 Description of Alternatives** ..... **4-1**
**5.1 Aesthetic** ..... **5.1-1**
**5.2 Agriculture and Forestry** ..... **5.2-1**
**5.3 Air Quality** ..... **5.3-1**
**5.4 Biological Resources** ..... **5.4-1**
**5.5 Cultural Resources** ..... **5.5-1**
**5.6 Energy** ..... **5.6-1**
**5.7 Geology, Soils, and Paleontological Resources** ..... **5.7-1**
**5.8 Greenhouse Gas Emissions** ..... **5.8-1**
**5.9 Hazards, Hazardous Materials, and Public Safety** ..... **5.9-1**
**5.10 Hydrology and Water Quality** ..... **5.10-1**
**5.11 Land Use and Planning** ..... **5.11-1**
**5.12 Mineral Resources** ..... **5.12-1**
**5.13 Noise** ..... **5.13-1**
**5.14 Population and Housing** ..... **5.14-1**
**5.15 Public Services** ..... **5.15-1**
**5.16 Recreation** ..... **5.16-1**
**5.17 Transportation** ..... **5.17-1**
**5.18 Tribal Cultural Resources** ..... **5.18-1**
**5.19 Utilities and Service Systems** ..... **5.19-1**
**5.20 Wildfire** ..... **5.20-1**
**5.21 Mandatory Findings of Significance** ..... **5.21-1**
**6.0 Comparison of Alternatives** ..... **6.0-1**
**7.0 Cumulative Impacts and Other Considerations** ..... **7.0-1**
**8.0 List of Preparers** ..... **8.0-1**
**9.0 References** ..... **9.0-1**

## APPENDICES

**Appendix 1-A:** *Figures*

***Appendix 2-A:*** *PEA Checklist Table*

**Appendix 3-A:** *Construction Equipment and Workforce Table*

**Appendix 5.3-A:** *Air Quality and GHG Modeling Files*

**Appendix 5.4-A:** *Biological Resources Technical Report*

**Appendix 5.5-A:** *Cultural Resources Technical Report*

**Appendix 5.6-A:** *Fuels Use Calculations*

**Appendix 5.7-A:** *Paleontological Resources Technical Report*

**Appendix 5.9-A:** *Hazardous Material Database Search Report*

**Appendix 5.9-B:** *Hazardous Materials Sites Summary Table*

**Appendix 5.9-C:** *Power Santa Clara Valley Transmission Project - Electromagnetic Effects of AC and DC High Voltage Circuit on Nearby Utilities*

**Appendix 5.13-A:** *Ambient Noise Results Memorandum*

**Appendix 5.18-A:** *Sacred Lands File Search Request and Results*

**Appendix 5.18-B:** *Native American Heritage Commission (NAHC) Contacts List*

**Appendix 5.18-C:** *Tribal Communication*

**Appendix 7-A:** *Cumulative Projects Table*

## TABLES

Table 2-1 Pre-Filing Consultations Meetings and Correspondence .....2-5
Table 3-1 New Access Roads.....3-25
Table 3-3 Work Area Disturbance Summary .....3-29
Table 3-4 Proposed Project Grading, Excavation, and Material Removal Summary.....2-5
Table 3-5 Anticipated Construction Equipment.....3-48
Table 3-6 Estimated Average Daily Construction Traffic .....3-49
Table 3-7 Proposed Preliminary Construction Schedule .....3-51
Table 3-8 Anticipated Permits and Approvals.....3-57
Table 3-9 Permanent Land and ROW Requirements .....3-60
Table 3-10 Applicant Proposed Measures.....3-61
Table 3-11 PG&E Best Management Practices (BMPs).....3-76
Table 5.1-1 Scenic Resources.....5.1-3
Table 5.1-2 Summary of Landscape Units.....5.1-5
Table 5.1-3 Summary of RVs and KOPs .....5.1-7
Table 5.1-4 Summary of Visual Change at KOPs.....5.1-19
Table 5.2-1 Inventory of FMMP Designated Farmland within One Mile of Proposed Project…… .....5.2-3
Table 5.2-2 Inventory of FMMP Designated Farmland within the Proposed Project Boundary …….....5.2-3
Table 5.2-3 Agriculture Land Use and Zoning Designations Within the Proposed Project .....5.2-4
Table 5.3-1 BAAQMD Attainment Status by Pollutant .....5.3-3
Table 5.3-2 Three-Year Ambient Air Quality Summary SFAB .....5.3-4
Table 5.3-3 Ambient Air Quality Standards.....5.3-9
Table 5.3-4 County of Santa Clara BAAQMD Significance Thresholds for Criteria Pollutants .....5.3-16
Table 5.3-5 Expected Construction Emissions Summary (Pounds per Day) – Skyline Terminal and San Jose B Substation.....5.3-18
Table 5.3-6 Expected Construction Emissions Summary (Pounds per Day) – Grove Terminal and Metcalf Substation.....5.3-19
Table 5.3-7 Expected Construction Emissions Summary (Pounds per Day) – Transmission Lines .....5.3-19

Table 5.3-8 Combined Expected Construction Emissions Summary (Pounds per Day). ..5.3-20
Table 5.3-9 Combined Expected Average Daily Emissions During Operations (Pounds per Day) .....5.3-21
Table 5.4-1 Vegetation Communities and Land Cover Types within the Survey Area .....5.4-3
Table 5.4-2 Special-Status Species, Habitat, and Potential for Occurrence within the Survey Area .....5.4-7
Table 5.4-3 Impacts by Vegetation Community .....5.4-47
Table 5.5-1 Previous Cultural Resource Studies within the Last 10 Years Intersecting the Proposed Project Area .....5.5-3
Table 5.5-2 Previous Cultural Resource Identified .....5.5-4
Table 5.7-1 Faults within 10 Miles of the Proposed Project .....5.7-4
Table 5.7-2 Geological Units within One Mile of the Proposed Project.....5.7-7
Table 5.7-3 Soil Types within the Proposed Project Area .....5.7-8
Table 5.8-1 Phase-Out Dates for $SF_6$ GIE .....5.8-9
Table 5.8-2 Best Management Practices for Construction-Related GHG Emissions .....5.8-12
Table 5.8-3 Expected Annual Construction $CO_2e$ Emissions .....5.8-15
Table 5.8-4 Operational Emissions Summary MT/Year.....5.8-17
Table 5.9-1 Contaminated Sites .....5.9-4
Table 5.9-2 Summary of Hazardous Materials .....5.9-19
Table 5.9-3 PG&E Summary of Hazardous Materials Disposal.....5.9-20
Table 5.11-1 General Plan Land Use Designations Within the Proposed Project .....5.11-2
Table 5.11-2 Zoning Designations within the Proposed Project .....5.11-3
Table 5.12-1 Mineral Resource Zone Definitions.....5.12-3
Table 5.13-1 City of San Jose Zoning Code Noise Standards .....5.13-8
Table 5.13-2 Exterior Noise Level Performance Standards for Non-Transportation Sources ..... .....5.13-10
Table 5.13-3 Typical Noise Levels Generated by Construction Equipment.....5.13-11
Table 5.13-4 Terminal and Substation On-Site Preparation Noise Levels .....5.13-13
Table 5.13-5 Proposed Project Operations Source Noise Level in Decibels (dBA).....5.13-15
Table 5.13-6 Operations Noise Levels in Decibels .....5.13-17
Table 5.13-7 Typical Construction Equipment Vibration Levels. .....5.13-18
Table 5.13-8 Typical Construction Equipment Vibration Levels at Thresholds.....5.13-19

Table 5.14-1 Population and Housing Estimates ..... 5.14-1
Table 5.14-2 Housing Developments within One Mile of Proposed Project ..... 5.14-3
Table 5.15-1 Fire Stations Near the Proposed Project Area ..... 5.15-3
Table 5.18-1 Tribal Contacts ..... 5.18-2
Table 5.18-2 Potential Tribal Cultural Resources Identified ..... 5.18-5
Table 5.19-1 Waste Volume by Type ..... 5.19-19
Table 5.19-2 PG&E Construction Waste ..... 5.19-20
Table 5.20-1 Large Fires Within 10-Mile Radius of the Proposed Project ..... 5.20-3
Table 6-1 Impact Comparison for the Grove Terminal Alternatives ..... 6-2
Table 6-2 Impact Comparison for the Skyline Terminal Alternatives ..... 6-9
Table 6-3 Impact Comparison for the Grove to Skyline Transmission Line Alternatives ..... 6-12
Table 6-4 Impact Comparison for the Metcalf to Grove Transmission Line Alternatives ..... 6-20

# ACRONYMS, INTIALISMS, AND DEFINED WORDS

| | |
|---|---|
| A | Agriculture |
| A(PD) | Agricultural Base District |
| AADT | annual average daily traffic |
| AATCM | Asbestos Airborne Toxic Control Measure |
| AB | Assembly Bill |
| ABCs | Across Barrier Connections |
| AC | alternating current |
| ACC I | Advanced Clean Cars Program |
| ACC II | Advanced Clean Cars II Program |
| ADA | Americans with Disabilities Act |
| AERMOD | Air Quality Dispersion Modeling |
| AF | acre feet |
| AIA | Airport Influence Area |
| ALUC | Airport Land Use Commission |
| AMPP | Association for Materials Protection and Performance |
| amsl | above mean sea level |
| APE | Area of Potential Effects |
| APLIC | Avian Power Line Interaction Committee |
| APMs | Applicant Proposed Measures |
| APNs | Assessor Parcel Numbers |
| APSA | Approved Project Sponsor Agreement |
| AQMDs | Air Quality Management Districts |
| ASA | architecture and site approval |
| ASG | Advanced Specialty Gas |
| ASTM | American Society for Testing and Materials |
| ATCMs | Air Toxic Control Measures |
| BAAH | breaker-and-a-half |
| BAAQMD | Bay Area Air Quality Management District |
| Basin Plan | Water Quality Control Plan |
| BAT | best available technology |
| BAU | Business-As-Usual |
| Bay Area O&M HCP | San Francisco Bay Area Operations and Maintenance Habitat Conservation Plan |
| BCC | Birds of Conservation Concern |
| BCT | best control technology |
| BGEPA | Bald and Golden Eagle Protection Act |
| bgs | below ground surface |
| bhp | brake horsepower |
| BLM | Bureau of Land Management |
| BMPs | Best Management Practices |
| BRTR | Biological Resources Technical Report |
| C&D | construction and demolition |
| CAA | Clean Air Act |

| | |
|---|---|
| CAAQS | California Ambient Air Quality Standards |
| CAFÉ | Corporate Average Fuel Economy Standards |
| CAISO | California Independent System Operator |
| CAL FIRE | California Department of Forestry and Fire Protection |
| Cal/OSHA | California Division of Occupational Safety and Health Administration |
| CalEEMod | California Emissions Estimator Model |
| CalEPA | California Environmental Protection Agency |
| CALGreen | California Green Building Standards Code |
| CalRecycle | California Department of Resources Recycling and Recovery |
| Caltrans | California Department of Transportation |
| CAP | Climate Action Plan |
| CARB | California Air Resources Board |
| CARE | Community Air Risk Evaluation |
| CBC | California Building Code |
| CBSC | California Building Standards Code |
| CCAs | community choice aggregators |
| CCBCs | Cross County Bicycle Corridors |
| CCC | California Coastal Commission |
| CCR | California Code of Regulations |
| CD | Commercial Downtown |
| CDFW | California Department of Fish and Wildlife |
| CDM | Community Distribution Model |
| CEC | California Energy Commission |
| CEHC | California Essential Habitat Connectivity Project |
| CEQA | California Environmental Quality Act |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| CESA | California Endangered Species Act |
| CFGC | California Fish and Game Code |
| CFR | Code of Federal Regulations |
| CGP | Construction General Permit |
| CGS | California Geological Survey |
| CHL | California Historical Landmark |
| CHP | California Highway Patrol |
| CHRIS | California Historical Resources Information System |
| CHSC | California Health and Safety Code |
| CIC | Combined Industrial/Commercial |
| CIP | Critical Infrastructure Protection |
| CLUP | Comprehensive Land Use Plan |
| CNDDB | California Natural Diversity Database |
| CNEL | Community Noise Equivalent Level |
| CNPS | California Native Plant Society |
| COC | contaminants of concern |
| Covenant | Covenant and Environmental Restriction on Property |
| Collaborative | Water Resources Protection Collaborative |
| CPCN | Certificate of Public Convenience and Necessity |

| | |
|---|---|
| CPHI | California Point of Historical Interest |
| CR | California Register |
| CRHR | California Register of Historic Resources |
| CRLF | California red-legged frog |
| CRS | Cultural Resource Specialist |
| CTS | California tiger salamander |
| CUP | Conditional Use Permit |
| CUPA | Certified Unified Program Agency |
| CVAO | Coyote Valley Agriculture Overlay |
| CWA | Clean Water Act |
| CY | cubic yards |
| dB | decibel |
| dBA | A-weighted decibels |
| DC | direct current |
| DC | Downtown Primary Commercial |
| DEH | Department of Environmental Health |
| DIR | Department of Industrial Relations |
| DOC | Department of Conservation |
| DOE | Department of Energy |
| DOF | Department of Finance |
| DOL | Department of Labor |
| DOORS | Diesel Off-Road Online Reporting System |
| DOT | Department of Transportation |
| DPM | Diesel Particulate Matter |
| DPR | Department of Parks and Recreation |
| DPS | distinct population segment |
| DT | Downtown |
| DTP | Downtown Transportation Plan |
| DTSC | Department of Toxic Substances Control |
| DWR | Department of Water Resources |
| EAP | Energy Action Plan |
| EFS | Environmental Field Specialist |
| EFZ | Earthquake Fault Zones |
| EIR | Environmental Impact Report |
| EISA | Energy Independence and Security Act |
| EMS | Emergency Medical Services |
| EMS | Energy Management System |
| EO | Executive Order |
| EOC | Emergency Operations Center |
| EOP | Emergency Operations Plan |
| EPA | Environmental Protection Agency |
| EPCA | Energy Policy and Conservation Act |
| ERIS | Environmental Risk Information Services |
| ERO | Electric Reliability Organization |
| ESA | Environmental Site Assessment |

| | |
|---|---|
| ESLs | environmental screening levels |
| ESPs | electric service providers |
| ESRI | Environmental System Research Institute |
| ESRP | Endangered Species Recovery Program |
| FAA | Federal Aviation Administration |
| FAR | Federal Aviation Regulations |
| FEMA | Federal Emergency Management Agency |
| FERC | Federal Energy Regulatory Commission |
| FPPA | Farmland Protection Policy Act |
| FHSZ | Fire Hazard Severity Zone |
| FHWA | Federal Highway Administration |
| FIRM | Flood Insurance Rate Map |
| First Update | First Update to the Climate Change Scoping Plan: Building on the Framework |
| FMMP | Farmland Mapping and Monitoring Program |
| FP | field protocols |
| FRA | Federal Railroad Administration |
| FRAP | Fire and Resource Assessment Program |
| FTA | Federal Transit Administration |
| Functional Specification | Appendix G: Description and Functional Specifications for Transmission Facilities Eligible for Competitive Solicitation in the Board Approved 2021-2022 Transmission Plan |
| FYLF | foothill yellow-legged frog |
| GHG | Greenhouse Gas |
| GHGRS | Greenhouse Gas Reduction Strategy |
| GIE | gas-insulated electronics |
| GIS | gas-insulated switchgear |
| GIS | Geographic Information System |
| GO | General Order |
| GOWC | Great Oaks Water Company |
| GPS | Global Positioning System |
| Greater Bay Area | Greater San Francisco Bay Area |
| GWMP | Groundwater Management Plan |
| GWP | Global Warming Potential |
| Handbook | City of San José Transportation Analysis Handbook |
| HAP | Hazardous Air Pollutants |
| HAZCOM | Hazardous Materials Communication |
| HCP | Habitat Conservation Plan |
| HCP/NCCP | Habitat Conservation Plan/Natural Communities Conservation Plan |
| HDD | horizontal directional drilling |
| HDPE | high-density polyethylene |
| HFCs | hydrofluorocarbons |
| HMBP | Hazardous Material Business Plan |
| HMMP | Hazardous Materials Management Plan |
| HMCD | Hazardous Materials Compliance Division |
| HMSO | Hazardous Materials Storage Ordinance |

| | |
|---|---|
| HOV | high-occupancy vehicle |
| HSAA | Hazardous Substance Account Act |
| HSC | Health and Safety Code |
| HSR | High-Speed Rail Authority |
| HUC | Hydrologic Unit Code |
| HUD | Department of Housing and Urban Development |
| HVAC | heating, ventilation, and air conditioning |
| HVDC | high-voltage direct current |
| HWCL | Hazardous Waste Control Law |
| I | Interstate |
| IDC | International Disposal Corporation of California |
| IEPR | Integrated Energy Policy Report |
| in/sec | inches per second |
| IOUs | investor-owned utilities |
| IPaC | Information for Planning and Consultation |
| IPCC | Intergovernmental Panel on Climate Change |
| ITP | Incidental Take Permit |
| KOPs | key observation points |
| kV | kilovolt |
| kW | kilowatts |
| kWh | kilowatt hours |
| LAN | Local Area Network |
| LCY | loose cubic yards |
| Ldn | dBA Leq-based Day-Night Average Sound Level |
| Leq | equivalent sound level depicted as |
| LED | light emitting diode |
| LEV | Low-Emission Vehicle |
| lbs | pounds |
| $L_{max}$ | maximum intermittent noise levels |
| LOS | level-of-service |
| LRA | Local Responsibility Area |
| LS Power | LS Power Grid California, LLC |
| LSAA | Lake or Streambed Alteration Agreement |
| MBTA | Migratory Bird Treatment Act |
| MCV | Manual of California Vegetation Online |
| MMT | million metric tons |
| MND | Mitigated Negative Declaration |
| mph | miles per hour |
| MPOs | metropolitan planning organizations |
| MOT | Materials of trade |
| MRZ | Mineral Resource Zones |
| MS | Measurable Environmental Sustainability |
| MSDS | Material Safety Data Sheet |
| MS4 | Municipal Separate Storm Sewer System |
| MT | metric ton |

| | |
|---|---|
| Muni Water | San José Municipal Water System |
| MUTCD | Manual on Uniform Traffic Control Devices |
| MVA | megavolt amperes |
| MVAR | megavolt amperes of reactive power |
| MW | megawatts |
| MY | model year |
| mya | million years ago |
| NACE | National Association of Corrosion Engineers |
| NAAQS | National Ambient Air Quality Standards |
| NAGPRA | Native American Graves Protection and Repatriation Act |
| NAHC | Native American Heritage Commission |
| NARA OFR | National Archives and Records Administration Office of the Federal Register |
| NCP | National Contingency Plan |
| NDIR | Non-Dispersive Infrared Photometry |
| NEC | National Electrical Code |
| NEHRP | National Earthquake Hazards Reduction Program |
| NERC | North American Electric Reliability Corporation |
| NESC | National Electric Safety Code |
| NFA | no further action |
| NFIP | National Flood Insurance Program |
| NFPA | National Fire Protection Association |
| NHPA | National Historic Preservation Act |
| NHTSA | National Highway Traffic Safety Administration |
| NIST | National Institute of Standards and Technology |
| NMFS | National Marine Fisheries Service |
| NOA | Naturally-Occurring Asbestos |
| NOI | Notice of Intent |
| NPDES | National Pollutant Discharge Elimination System |
| NPPA | Native Plant Protection Act |
| NRCS | Natural Resources Conservation Service |
| NR | National Register |
| NRHP | National Register of Historic Places |
| NSF | National Science Foundation |
| NWI | National Wetlands Inventory |
| NWIC | Northwest Information Center |
| O&M | operation and maintenance |
| OAL | Office of Administrative Law |
| OEHHA | Office of Environmental Health Hazard Assessment |
| OES | Office of Emergency Services |
| OFEE | Oil-filled electric equipment |
| OH | Open Hillside |
| OHP | Office of Historic Preservation |
| OHWM | Ordinary High-Water Mark |
| OLRC | Office of the Law Revision Counsel |
| OPR | Office of Planning and Research |

| | |
|---|---|
| OS | Open Space |
| OSA | Open Space Authority |
| OSHA | Occupational Safety and Health Administration |
| PAH | polyaromatic hydrocarbons |
| PCBs | poly-chlorinated biphenyls |
| PCE | tetrachloroethylene |
| PCN | Preconstruction Notification |
| PEA | Proponent's Environmental Assessment |
| pel | permissible exposure limit |
| PERP | Portable Equipment Registration Program |
| PFCs | perfluorocarbons |
| PG&E | Pacific Gas and Electric Company |
| PHEVs | plug-in hybrid electric vehicles |
| PID | Photoionization Detector |
| PL | Public Law |
| PLSS | Public Lands Survey System |
| PM | particulate matter |
| Porter-Cologne | Porter-Cologne Water Quality Control Act |
| POST | Peninsula Open Space Trust |
| POUs | public-owned utilities |
| ppb | parts per billion |
| PPE | personal protective equipment |
| ppm | parts per million |
| PPV | peak particle velocity |
| PRC | Public Resources Code |
| PRMMP | Paleontological Resources Mitigation and Monitoring Plan |
| Procedures | State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State |
| Proposed Project | Power Santa Clara Valley Project |
| PSC | Planning Section Chief |
| PSMP | Protection System Maintenance Program |
| PSPS | Power Safety Power Shutoff |
| PTC | Permit to Construct |
| PU | Public Utilities |
| PV | photovoltaic |
| PVC | polymer, polyvinyl chloride |
| QSP | Qualified SWPPP Practitioner |
| RCRA | Resource Conservation and Recovery Act |
| Region | San Francisco Bay Hydrologic Region |
| REL | Reference Exposure Levels |
| RHNA | Regional Housing Needs Allocation |
| RHV | San José/Reid/Hillview Station |
| ROW | right-of-way |
| RPS | Renewables Portfolio Standard |
| RSL | Remote Sensing Laboratory |

| | |
|---|---|
| RV | Representative Viewpoint |
| RWF | Regional Wastewater Facility |
| RWQCB | Regional Water Quality Control Board |
| SB | Senate Bill |
| San Francisco Bay Basin Plan | San Francisco Bay Water Quality Control Basin Plan |
| SBWR | South Bay Water Recycling |
| SCADA | Supervisory Control and Data Acquisition |
| SCAQMD | South Coast Air Quality Management District |
| SCC | Santa Clara County |
| SCCFMC | Santa Clara County Fairgrounds Management Corporation |
| SCCRAD | Santa Clara County Roads and Airports Department |
| Scoping Plan | Climate Change Scoping Plan: A Framework for Change |
| SCS | Sustainable Communities Strategy |
| SCVOSA | Santa Clara Valley Open Space Authority |
| SCVWD or Valley Water | Santa Clara Valley Water District |
| SDNHM | San Diego Natural History Museum |
| SDS | Safety Data Sheets |
| Second Update | California's 2017 Climate Change Scoping Plan |
| SEMS | Standardized Emergency Management System |
| SFAB | San Fransisco Air Basin |
| SFPUC | San Francisco Public Utilities Commission |
| SGMA | Sustainable Groundwater Management Act |
| SHPO | State Historic Preservation Office |
| SIP | State Implementation Plan |
| SJC | San José Mineta International Airport Station |
| SJCE | San José Clean Energy |
| SJFD | San José Fire Department |
| SJKF | San Joaquin kit fox |
| SJPD | San José Police Department |
| SJSU | San José State University |
| SJW | San José Water |
| SLF | Sacred Lands File |
| SMARA | Surface Mining and Reclamation Act of 1975 |
| SMARTS | Stormwater Multiple Application and Report Tracking System |
| SMCRA | Surface Mining Control and Reclamation Act |
| SME | Subject Matter Expert |
| SMGB | State Mining and Geology Board |
| SMJUs | Small and Multi-Jurisdictional Utilities |
| SMP | Site Management Plan |
| SOI | sphere of influence |
| SPCCP | Spill Prevention, Control, and Countermeasure Plan |
| SPRR | Southern Pacific Railroad |
| SR | State Route |
| SRA | State Responsibility Area |
| SVCE | Silicon Valley Clean Energy |

| | |
|---|---|
| SVOCs | semi-volatile organic compounds |
| SVP | Silicon Valley Power |
| SWPPP | Stormwater Pollution Prevention Plan |
| SWRCB | State Water Resources Control Board |
| TACs | toxic air contaminants |
| T-BACT | Available Control Technology |
| TCP | Traffic Control Plan |
| TCRs | Tribal cultural resources |
| The Board | Board of Forestry and Fire Protection |
| TMDL | Total Maximum Daily Loads |
| TMP | Traffic Management Plan |
| TPHd | Total petroleum hydrocarbons-diesel |
| TPP | Transmission Planning Process |
| tpy | tons per year |
| TSDF | treatment, storage, and disposal facility |
| TWA | time-weighted average |
| UBC | Uniform Building Code |
| UCMP | University of California Museum of Paleontology |
| UFC | Uniform Fire Code |
| Unified Program | Unified Hazardous Waste and Hazardous Materials Management Regulatory Program |
| UPRR | Union Pacific Railroad |
| US&R | Urban Search and Rescue |
| USA | Underground Service Alert |
| USACE | United States Army Corps of Engineers |
| USAs | urban service areas |
| USDA | United States Department of Agriculture |
| USDOT | United States Department of Transportation |
| USEPA | United States Environmental Protection Agency |
| USFWS | United States Fish and Wildlife Service |
| USGS | United States Geological Survey |
| UST | underground storage tank |
| UWMP | Urban Water Management Plan |
| VHFHSZ | Very High Fire Hazard Severity Zones |
| VMT | vehicle miles traveled |
| VOCs | volatile organic compounds |
| VSC | Voltage-Source Converter |
| VTA | Valley Transportation Authority |
| WBWG | Western Bat Working Group |
| WEAP | Workers Environmental Awareness Program |
| WHL | wildfire hazard level |
| WMPs | Wildfire Mitigation Plans |
| WOTUS | Waters of the United States |
| WPT | western pond turtle |
| WSCP | Water Shortage Contingency Plan |

| | |
|---|---|
| WUI | wildland urban interface |
| XLPE | single core cross-linked polyethylene |
| ZEV | Zero Emission Vehicle |

# 1.0 EXECUTIVE SUMMARY

## 1.1 PROPOSED PROJECT SUMMARY

LS Power Grid California, LLC ("LS Power"), a wholly-owned subsidiary of LS Power Associates, L.P., established to own and operate transmission projects in the State of California, is proposing the Power Santa Clara Valley Project ("Proposed Project"). The Proposed Project includes components to be constructed and operated by LS Power as well as a modification and expansion of existing Pacific Gas and Electric Company (PG&E) substations, which would be constructed and operated by PG&E. The Proposed Project is located within an existing regional transmission system that provides electricity to the greater San Francisco Bay Area. The Proposed Project is located in the City of San José and County of Santa Clara, California.

The Proposed Project includes the following main components:

- Two new high-voltage direct current (HVDC) terminals:
    - The new Skyline terminal adjacent to the existing PG&E San Jose B substation; and
    - The new Grove terminal in the vicinity of the existing PG&E Metcalf substation.
- One approximately 13-mile Grove to Skyline 320 kilovolt (kV) direct current (DC) underground transmission line connecting the Skyline terminal to the Grove terminal;
- One approximately 100-foot overhead Skyline to San Jose B 115 kV alternating current (AC) station tie line connecting the new Skyline terminal to the existing PG&E San Jose B substation;
- One 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; and
- Modifications to PG&E's Metcalf substation and expansion of PG&E's San Jose B substation to accommodate the new Metcalf to Grove 500 kV transmission line and the Skyline to San Jose B 115 kV station tie line. PG&E would also construct a new water line that would connect to the Metcalf substation. The modifications performed by PG&E are included in this Proposed Project description as they are part of the overall transmission upgrade project.

The Proposed Project was approved by the California Independent System Operator (CAISO) to ensure the reliability of the CAISO-controlled grid. The Proposed Project's purpose is to strengthen the electrical grid in the County of Santa Clara as well as the entire Greater Bay Area. The Proposed Project would:

- Ensure the reliability of the South Bay sub-area of the Greater Bay Area of the CAISO-controlled grid;
- Provide better access to cost-effective, renewable energy and other electric transmission grid benefits;
- Support the provision of safe, reliable, and adequate electricity service to the PG&E and Silicon Valley Power (SVP) service territories;
- Provide voltage support to the existing PG&E transmission system to support additional load growth; and

- Facilitate the importation and use of renewable electricity to fulfill the State of California's energy policies and goals by ensuring reliable operation of the grid.

## 1.2 LAND OWNERSHIP AND RIGHT-OF-WAY REQUIREMENTS

### 1.2.1 LAND OWNERSHIP

Land entitlement issues are not part of this regulatory proceeding, in which the CPUC is considering whether to grant or deny LS Power's application for a Certificate of Public Convenience and Necessity (CPCN) to construct new electrical facilities. Rather, any land rights issues would be resolved in subsequent negotiations and/or condemnation proceedings in the proper jurisdiction, following the decision by the CPUC on LS Power's application (see, for example, Jefferson-Martin 230 kV Transmission Project, A.02-04-043, D.04-08-046, p. 85).

#### LS Power Facilities

The parcels associated with the proposed Skyline terminal site (Assessor Parcel Numbers [APNs] 259-23-020 and 259-23-024) are currently owned by LS Power. The parcels associated with the proposed Grove terminal site (APNs 725-14-008, 725-14-009, 725-14-014, and 725-14-015) are currently under an exclusive option to purchase by LS Power. These parcels of land are adequate to accommodate the HVDC terminal construction activities, including site grading, fencing, staging area, equipment, internal circulation, and other operational considerations (see **Section 3.4.3**, *New or Modified Rights-of Way or Easements*).

However, as discussed further in **Section 5.9**, *Hazards, Hazardous Materials, and Public Safety*, the proposed Skyline terminal site is located on an identified Cleanup Program Site and currently has a Covenant and Environmental Restriction on Property ("Covenant"). The Covenant further identifies that the implementation of the approved Site Management Plan (SMP) would successfully mitigate potential risks from soil exposure during construction and long-term operations. Additionally, the proposed Skyline terminal site has a number of encumbrances on the property, including, but not limited to, California Department of Transportation ("Caltrans") roadway easements, Santa Clara Valley Water District (SCVWD or "Valley Water") water management and/or storm water drainage easements, telecommunication easements, PG&E easements, and a railroad easement. None of the existing encumbrances would prohibit the development of the proposed Skyline terminal.

#### PG&E Facilities

PG&E owns the parcels on which the existing San Jose B and Metcalf substations are located. However, PG&E and LS Power would need to negotiate the transfer of a portion of the proposed Skyline terminal parcel to allow for the expansion of the San Jose B substation.

### 1.2.2 RIGHTS-OF-WAY OR EASEMENTS

#### LS Power Facilities

The proposed underground Grove to Skyline 320 kV DC transmission line and the proposed underground Metcalf to Grove 500 kV transmission line would require new right-of-way (ROW) easements and/or franchise agreements, mainly from local jurisdictional agencies as both transmission lines are located mostly within existing public roadways. Specifically, the proposed

Grove to Skyline 320 kV DC transmission line would require approximately 13 miles of new ROW/easement/franchise agreements, and the proposed Metcalf to Grove 500 kV transmission line would require approximately 1.2 miles of new ROW/easement/franchise agreements. The proposed Skyline to San Jose B 115 kV overhead station tie line would be within the proposed Skyline terminal parcel and would not require new ROW or easement. LS Power would retain any necessary land rights required for the Skyline to San Jose B 115 kV overhead station tie line during the transfer of a portion of the proposed Skyline terminal parcel to PG&E.

LS Power would have to negotiate an easement with two private landowners for the transmission lines: Westbury Downtown, LLC and PG&E. LS Power would also obtain real estate rights from municipal, state, and regional agency-owned lands for the transmission lines, including the following: City of San José, County of Santa Clara, and SCVWD. New permanent ROWs or licenses would also be acquired from each applicable public agency through that agency's designated process. The total number of land rights to be acquired would be finalized during final engineering. LS Power would also have the power of eminent domain to acquire any necessary land rights for construction of the Proposed Project. Finally, LS Power would secure crossing and encroachment permits, authorizations, and agreements for existing linear infrastructure crossed by the Proposed Project.

The new permanent ROW for the proposed Grove to Skyline 320 kV DC and Metcalf to Grove 500 kV transmission lines would vary in width but would generally require an approximately three-foot-wide ROW. The ROW would be expanded at vault locations to encompass the entire splice vault. The specific width of necessary easements, ROW, or franchise agreements along the transmission line alignments would be refined during the final engineering process. The Proposed Project is anticipated to require a total of approximately seven acres of new ROW, easement, or franchise agreements.

### PG&E Facilities

PG&E may require new or modified ROWs or easements to relocate its existing distributions lines and install a new water line near the existing Metcalf substation. Whether new rights are necessary would be determined when detailed design has progressed.

## 1.3 AREAS OF CONTROVERSY

LS Power met with several regulatory agencies and organizations to solicit input on the Proposed Project design and potential resource and land use issues in the vicinity of the Proposed Project. Agencies and organizations met with include the City of San José, the County of Santa Clara, Santa Clara Valley Open Space Authority, Peninsula Open Space Trust, County of Santa Clara Parks and Recreation Department, Land Trust of Santa Clara, High Speed Rail Authority, Caltrans, Guadalupe River Park Conservancy, SCVWD, Santa Clara County Roads and Airports Department, Santa Clara County Fairgrounds Management Corporation, CAISO, San Francisco Bay Regional Water Quality Control Board (RWQCB), and San Jose Downtown Association. Based on the conducted outreach and consultation with agencies, no areas of significant controversy and/or public concern were identified.

## 1.4 SUMMARY OF IMPACTS

There are no potentially significant or significant and unavoidable impacts expected as a result of the Proposed Project.

LS Power would be responsible for overseeing the assembly of construction and environmental teams that would implement and evaluate the Applicant Proposed Measures (APMs) for the Proposed Project. LS Power maintains an environmental compliance management program to allow for implementation of the APMs to be monitored, documented, and enforced during each Proposed Project phase. The Proposed Project would include APMs to ensure that Proposed Project-level impacts would be less than significant for the following resource areas:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology, Soils, and Paleontological Resources
- Hazards, Hazardous Materials, and Public Safety
- Hydrology and Water Quality
- Noise
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems

The APMs are described in **Table 3-10**, *Applicant Proposed Measures* and are described in detail in **Section 5.0**, *Environmental Analysis*, which includes an analysis of why the APM was selected and how it would reduce and/or minimize potential impacts. In addition, PG&E has included Habitat Conservation Plan (HCP) Field Protocols (FPs) as well as construction Best Management Practices (BMPs) for the following resource areas:

- Air Quality
- Biological Resources
- Cultural Resources
- Hazardous Materials
- Paleontological Resources

## 1.5 SUMMARY OF ALTERNATIVES

As outlined in **Section 4.0**, *Description of Alternatives*, this Proponent's Environmental Assessment (PEA) considered alternatives that would achieve the Functional Specifications published by CAISO. These included the following alternative categories and specific alternatives:

- Terminal Site Alternatives
    - Four Grove terminal site alternatives (refer to **Section 4.1.1**, *Grove Terminal Alternative Sites* and **Figure 4-1**, *Grove Terminal Alternative Sites Map*)
    - Two Skyline terminal site alternatives (refer to **Section 4.1.2**, *Skyline Terminal Alternative Sites* and **Figure 4-2**, *Skyline Terminal Alternative Sites Map*)
- Transmission Line Route Alternatives
    - Four Grove to Skyline 320 kV DC transmission line route alternatives (refer to **Section 4.1.3**, *Grove to Skyline 320 kV DC Transmission Line Route Alternatives* and **Figure 4-4**, *Grove to Skyline 320 kV DC Transmission Line Alternatives Map*)

  - Five Metcalf to Grove 500 kV AC transmission line route alternatives (refer to **Section 4.1.4**, *Metcalf to Grove 500 kV AC Transmission Line Route Alternatives* and **Figure 4-5**, *Metcalf to Grove 500 kV AC Transmission Line Alternatives Map*)

- Technology Alternative
  - One technology alternative (refer to **Section 4.1.5**, *Technology Alternatives*)

**Section 6.0**, *Comparison of Alternatives* of the PEA includes a comparison of the alternatives in terms of environmental performance, including a relative ranking for each alternative's environmental impacts in comparison to the Proposed Project. The Proposed Project and all considered alternatives are anticipated to have no significant impacts. Key criteria for selection of the Proposed Project include feasibility, environmental impacts, and costs. **Section 6.0** includes the rationale for Proposed Project selection where alternatives were identified to result in less and/or lesser impacts to the environment.

## 1.6 PRE-FILING CONSULTATION AND PUBLIC OUTREACH SUMMARY

As discussed previously in **Section 1.3**, *Areas of Controversy*, meetings were held with the following agencies and organizations: City of San José, the County of Santa Clara, Santa Clara Valley Open Space Authority, Peninsula Open Space Trust, County of Santa Clara Parks and Recreation Department, Land Trust of Santa Clara, High Speed Rail Authority, Caltrans, Guadalupe River Park Conservancy, SCVWD, Santa Clara County Roads and Airports Department, Santa Clara County Fairgrounds Management Corporation, CAISO, San Francisco Bay Regional Water Quality Control Board (RWQCB), and San Jose Downtown Association. In addition, LS Power and the CPUC held a Pre-filing Consultation meeting on March 28, 2023, to discuss the Proposed Project. The agenda for the meeting included: an introduction to the Proposed Project, location review, purpose and need overview, and schedule. During the meeting, LS Power shared a summary of the Proposed Project description and preliminary mapping. The Proposed Project's need to be in-service by June 2028 was also discussed.

## 1.7 CONCLUSIONS

The PEA analyzes the potential environmental impacts associated with the construction, operation, and maintenance of the Proposed Project. Through preparation of the PEA, it was determined that each of the 20 resource areas covered in the PEA do not have the potential to be significantly impacted by the Proposed Project. The Proposed Project would result in no impacts or negligible impacts to, population and housing, and wildfire. Any impacts that would occur have been determined to be less than significant for the remaining 18 resource areas. The sections below summarize conclusions and APMs for the following resource areas:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology, Soils, and Paleontological Resources
- Greenhouse Gas Emissions
- Hazards, Hazardous Materials, and Public Safety
- Hydrology and Water Quality

- Land Use
- Mineral Resources
- Noise
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems

Implementation of APMs (refer to **Table 3-10**) would ensure that impacts remain less than significant. These impacts are discussed below by resource area.

### 1.7.1 AESTHETICS

As discussed in **Section 5.1**, *Aesthetics*, the Proposed Project would result in less than significant impacts on scenic vistas as temporary construction would result in a view of construction equipment. **APM AES-1** would ensure that temporary impacts from construction are minimized by requiring construction areas to be maintained and restored following completion of construction. Although the Proposed Project would introduce new permanent structures to the views from scenic vistas, implementation of **APMs AES-1** and **AES-2** would ensure that the Proposed Project considers applicable design guidelines and maintains natural vegetation and other features that make up the visual landscape of the area. This change would not result in a substantial adverse effect on a scenic vista. The Proposed Project would result in less-than-significant impacts regarding conflicting with applicable zoning and other regulations governing scenic quality as well as degrading the existing visual character or quality of public views of the site and its surroundings. While the Proposed Project area would be noticeable to some viewers, the changes are generally consistent with the existing structures and color palette in the viewshed. **APM AES-1** would be implemented to ensure new sources of substantial light or glare would be avoided, and security lighting at the proposed terminal sites would be directed on-site and hooded to reduce potential visibility from off-site locations. With the implementation of **APMs AES-1** and **AES-2**, the Proposed Project would result in less than-significant-impacts to light and glare.

### 1.7.2 AGRICULTURE AND FORESTRY RESOURCES

As discussed in **Section 5.2**, *Agriculture and Forestry Resources*, the Proposed Project would result in less-than-significant impacts to converting farmland to non-agricultural use. While the Proposed Project would convert designated Prime Farmland to non-agricultural uses, the impact on agricultural production in the Santa Clara Valley is minimal. There would be no impact to conflicting with existing zoning for agricultural use or a Williamson Act contract. Additionally, the Proposed Project does not consist of forest land and, thus, would not result in conflict with forest land zoning or the loss or conversion of forest land. The Proposed Project would result in less-than-significant impacts involving other changes that could result in the conversion of farmland to non-agricultural use or conversion of forest land to non-forest use. No APMs are included.

### 1.7.3 AIR QUALITY

The Proposed Project would not conflict with or obstruct implementation of the applicable air quality plan. As discussed in **Section 5.3**, *Air Quality*, the Proposed Project would not exceed thresholds established by the Bay Area Air Quality Management District (BAAQMD). **APM AQ-1**

has been included to 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, consistent with the emissions modeling completed for the PEA. There would be less-than-significant impacts related to resulting in a cumulatively considerable net increase of any criteria pollutant. The Proposed Project would not exceed any of the BAAQMD thresholds, which would ensure compliance with both the City of San José and County of Santa Clara California Environmental Quality Act (CEQA) requirements and would not result in a cumulatively considerable impact. **APM AQ-2** would ensure that potential impacts from fugitive dust during construction are less than significant and consistent with local guidelines. The Proposed Project would result in less-than-significant impacts regarding exposing sensitive receptors to substantial pollutant concentrations and would not result in significant impacts related to odors. **APM AQ-3** would ensure that Proposed Project construction is consistent with regulations and safe practices for naturally-occurring asbestos. The Proposed Project would not exceed any of the BAAQMD thresholds of significance at the nearest sensitive receptors, and temporary construction odors may occur but would be short-term. Operation of the Proposed Project is not anticipated to result in emissions that would cause odors. Additionally, PG&E **BMPs AQ-1** through **AQ-5** would be implemented to ensure impacts remain less than significant.

### 1.7.4 BIOLOGICAL RESOURCES

The Proposed Project would result in less-than-significant impacts to biological resources. The Proposed Project would not result in 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 (CDFW) or United States Fish and Wildlife Service (USFWS). Additionally, the Proposed Project would result in less-than-significant impacts to any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS. **APMs BIO-1** through **BIO-16** have been included to ensure that impacts would remain less than significant. The Proposed Project would not result in a substantial adverse effect on state or federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means as well as interfering with the movement of any native resident or migratory fish or wildlife species. The Proposed Project would not conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state HCP. **APMs BIO-7**, **BIO-9**, **BIO-13**, and **BIO-16** were included to ensure the Proposed Project would not create a substantial collision or electrocution risk for birds or bats. Additionally, PG&E construction BMPs and FPs would be implemented from PG&E's San Francisco Bay Area Operations and Maintenance Habitat Conservation Plan ("Bay Area O&M HCP") to ensure impacts would remain less than significant. Specially, PG&E has included **FP-1** through **FP-18** and **BMPs BIO-1** through **BIO-3**.

### 1.7.5 CULTURAL RESOURCES

The Proposed Project would not result in a substantial adverse change in the significance of a historical resources pursuant to §15064.5. The Proposed Project would avoid the two identified historic resources in the Proposed Project area. There is one known archaeological resources located within the Proposed Project area, however, this resource was evaluated and recommended not eligible for listing on the National Register of Historic Places or the California Register of Historic Resources. The Proposed Project would result in less-than-significant impacts to causing a substantial adverse change in the significance of an archaeological resource

pursuant to §15064.5 and disturbing human remains. There are two known resources associated with human remains. In addition, the Proposed Project has the potential to encounter unidentified historical resources, archaeological resources, and/or human remains during ground disturbing activities. **APMs CUL-1** through **CUL-4** would ensure that impacts would remain less than significant. If human remains were encountered, the Proposed Project would implement **APMs CUL-2** and **CUL-5** to ensure impacts would remain less than significant. Additionally, PG&E **BMPs CULT-1** through **CULT-5** would be implemented to ensure impacts remain less than significant for PG&E's substation modifications and new water line.

### 1.7.6 ENERGY

The Proposed Project would not conflict with state or local plans for renewable energy, and it would not add capacity for the purpose of serving a non-renewable energy source. As discussed in **Section 5.6**, *Energy*, construction and operation of the Proposed Project would utilize a relatively small amount of energy and fossil fuels, while increasing the electrical system efficiency for future uses of renewable energy within the region. Therefore, with respect to adverse environmental impacts resulting from wasteful, inefficient, or unnecessary consumption of energy resources, the Proposed Project was found to have a less-than-significant impact. No APMs are included.

### 1.7.7 GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES

There were determined to be less-than-significant impacts related to the 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, strong seismic ground shaking, seismic-related ground failure including liquefaction, and landslides. As discussed in **Section 5.7**, *Geology, Soils, and Paleontological Resources*, the Proposed Project is located in an area with some seismic activity; however, due to the short construction time and the fact that the proposed facilities would be operated in an unmanned nature, there would be little risk of injury caused by seismic activity. The Proposed Project site is located in an area with moderately expansive surficial soil; therefore, a geotechnical study regarding the risk and recommendations on the site would be completed, as discussed in **APM GEO-1**. The Proposed Project would not include the use of septic tanks or alternative wastewater disposal and would result in no impacts.

The existing regulations and plans, as well as **APMs PALEO-1** and **PALEO-2**, would ensure impacts to any paleontological resources within the Proposed Project area would be less than significant. The Proposed Project's impact to geology, soils, and paleontological resources would be less than significant. PG&E would implement **BMP PALEO-1**, and impacts would be less than significant.

### 1.7.8 GREENHOUSE GAS EMISSIONS

The Proposed Project would result in less than significant impacts to generating greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment. Construction and operation of the Proposed Project would not exceed BAAQMD thresholds for megatons of $CO_2e$. The Proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Since the Proposed Project would not exceed BAAQMD screening thresholds, the Proposed Project would not conflict with either the City of San José's or the County of Santa Clara's plans to reduce the emissions of GHGs. No APMs are included.

### 1.7.9 HAZARDS, HAZARDOUS MATERIALS, AND PUBLIC SAFETY

There were determined to be less-than-significant impacts to creating a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials and reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. The Proposed Project would result in less-than-significant impacts to emitting hazardous emissions, or handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. The Proposed Project would result in less-than-significant impacts regarding being located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and would not create a significant hazard to air traffic. There were determined to be less-than-significant impacts regarding interfering with an adopted emergency plan, exposing people or structures to wildfires. The Proposed Project would implement **APMs HAZ-1** through **HAZ-5** to ensure impacts remain less than significant in these areas. No impacts related to creating a significant hazard to the public or environment or exposing people to a significant risk of injury or death would occur. As discussed in **Section 5.9**, *Hazards, Hazardous Materials, and Public Safety*, the Proposed Project would not result in any significant impacts to this resource area. The Proposed Project would include design specifications and operation and maintenance (O&M) procedures in order to minimize potential impacts from hazards, hazardous materials, and public safety. Additionally, PG&E would implement **BMPs HAZ-1** through **HAZ-12** to ensure impacts remain less than significant.

### 1.7.10 HYDROLOGY AND WATER QUALITY

There were determined to be less-than-significant impacts to violating water quality standards or water discharge requirements and degrading surface or groundwater quality and supplies. The Proposed Project would result in less-than-significant impacts to altering 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 surface. The Proposed Project would result in less-than-significant impacts to releasing of pollutants due to project inundation in flood hazard, tsunami, or seiche zones and would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. **APM WQ-1** would be implemented to further ensure that Proposed Project-level impacts relating to groundwater discharge would remain less than significant.

### 1.7.11 LAND USE AND PLANNING

There were determined to be no impacts related to physically dividing an established community and less-than-significant impacts related to causing 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. Proposed uses of the Proposed Project are compatible with the County of Santa Clara County Municipal Code and City of San José Municipal Code, as applicable for each project component. Local ministerial permits would be obtained prior to construction. No APMs are included.

### 1.7.12 MINERAL RESOURCES

There were determined to be less-than-significant impacts resulting from the loss of availability of a known mineral resource that would be of value to the region or that could be of value locally. The Proposed Project does include areas mapped as Mineral Resource Zone (MRZ)-2 and MRZ-

3. However, there are no existing mineral extraction operations in these areas, and the highly developed nature of the Proposed Project area makes the potential for future mineral extraction very low, regardless of the inclusion of the Proposed Project. Impacts would be less than significant, and no APMs are included.

### 1.7.13 NOISE

There were determined to be less-than-significant impacts related to the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Proposed Project. The Proposed Project would result in less-than-significant impacts to the generation of excessive ground-borne vibration or ground-borne noise levels. **APM NOI-1** would be implemented to ensure vibration impacts would remain less than significant during construction. Additionally, since the Proposed Project is located within the vicinity of a private airstrip or an airport land use plan, there were determined to be less-than-significant impacts related to exposing people residing or working in the Proposed Project area to excessive noise levels.

### 1.7.14 POPULATION AND HOUSING

There were determined to be no impacts to inducing substantial unplanned population growth in the Proposed Project area, either directly or indirectly. The Proposed Project would be remotely operated with no permanent workforce on-site and only require a small number of positions for O&M; therefore, no population growth would be directly induced by operation of the Proposed Project. Additionally, the Proposed Project would result in no impact to displacing substantial numbers of existing people or housing, necessitating the construction of replacement housing. No APMs are included.

### 1.7.15 PUBLIC SERVICES

There were determined to be less-than-significant impacts related to schools, parks, and other facilities as a result of the Proposed Project. As discussed in **Section 5.15**, *Public Services*, the Proposed Project would not permanently affect service ratios, response times, or other objectives for fire and police protection services in the area. During operation, the Proposed Project would not require regular oversight, service, or management; the facilities would operate in an unmanned nature, minimizing the amount of public services that would be required during operation. The Proposed Project's public services impacts would be less than significant. Emergency service providers would be notified of the timing, location, and duration of construction activities in the event that temporary lane closures are required during construction. No APMs are included.

### 1.7.16 RECREATION

There were determined to be less-than-significant impacts related to regional parks and recreation. As discussed in **Section 5.16**, *Recreation*, the Proposed Project is located within the vicinity of numerous parks and trails. The Proposed Project would result in temporary impacts to Coyote Creek Trail during construction of the proposed Metcalf to Grove 500 kV transmission line. The Proposed Project would also relocate a portion of the trail further away from Coyote Creek and the associated riparian area. The Proposed Project would not be expected to increase the use of any parks or trails in the area. Through implementation of **APM REC-1**, coordination would occur with the City of San José, County of Santa Clara, and the National Park Service for the preparation of the Proposed Project's trail management plan. Additionally, **APM REC-2** would

be included to ensure safety measures are implemented during construction along Coyote Creek Trail, and **APM REC-3** would ensure temporary disturbance along Coyote Creek Trail would be restored. With implementation of **APMs REC-1** through **REC-3**, impacts would remain less than significant.

### 1.7.17 TRANSPORTATION

Proposed Project-generated traffic disruptions would be temporary, periodic, and managed with a traffic control plan, and existing roadways would not be permanently degraded. Construction of the Proposed Project would minimize temporary full closure of any roads, and access routes for emergency vehicles within and near the Proposed Project site would be maintained. **APM TRA-1** would ensure a traffic control plan would be prepared. The Proposed Project would not limit access or increase usage of public transit and includes **APM TRA-2** to ensure LS Power coordinates any bus stop closures with the Santa Clara Valley Transportation Authority. As discussed in **Section 5.17**, *Transportation*, construction traffic associated with the Proposed Project would have a less-than-significant impact on regional vehicle miles traveled (VMT). Construction and O&M of the Proposed Project would not conflict with the Santa Clara Countywide Bicycle Plan or the City of San José Better Bike Plan. **APM TRA-3** would ensure that any damage caused by construction activities would be repaired to preconstruction conditions. Thus, compliance with local permits and **APMs TRA-1** through **TRA-3** would further ensure that Proposed Project-level impacts would be less than significant.

### 1.7.18 TRIBAL CULTURAL RESOURCES

There were determined to be less-than-significant impacts related to causing a substantial adverse change in the significance of a Tribal cultural resource (TCR) 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), 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 Public Resources Code Section 5024.1. The prehistoric site that qualifies as a TCR would be avoided by the Proposed Project design. **APM TCR-1** would require the development and implementation of a Worker Environmental Awareness Program; **APM TCR-2** would require archaeological and Native American monitoring; in conjunction with **APMs CUL-1** through **CUL-5**, implementation of these APMs would ensure potential impacts to TCRs are less than significant. Unrecorded human remains may be present within the Proposed Project area; if encountered, implementation of **APM CUL-5**, providing avoidance and protection of the remains by ensuring that appropriate personnel are present and appropriate procedures are followed, would ensure that impacts to human remains are reduced to less than significant. Therefore, with implementation of **APMs TCR-1**, **TCR-2**, and **CUL-1** through **CUL-5**, impacts would be less than significant.

### 1.7.19 UTILITIES AND SERVICE SYSTEMS

There were determined to be less-than-significant impacts related to the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities. **APM UTIL-1** has been included to ensure coordination occurs with all utility companies with utilities located within or crossing the Proposed Project transmission lines. The Proposed Project would result in less-than-significant impacts related to having sufficient water supplies. There would be no impacts related to wastewater treatment capacity and complying with solid waste regulations. The Proposed Project would result in less-than-significant impacts regarding generating solid waste in excess of state or local standards, or

in excess of the capacity of local infrastructure. Less-than-significant impacts would occur regarding increasing the rate of corrosion of adjacent utility lines. Therefore, with implementation of **APM UTIL-1**, impacts would be less than significant.

### 1.7.20 WILDFIRE

The Proposed Project would result in no impacts related to impairing an adopted emergency response or evacuation plan, exposing Proposed Project area occupants to pollutant concentrations from a wildfire, or installing infrastructure that may exacerbate fire risk. As discussed in **Section 5.20**, *Wildfire*, the Proposed Project is not located within a State Responsibility Area (SRA) or lands classified as Very High Fire Hazard Severity Zone (VHFHSZ). The nearest VHFHSZ is approximately 1.5 miles east of the proposed Grove terminal, while the nearest SRA is approximately 100 feet west of a portion of the proposed underground Grove to Skyline 320 kV DC transmission line and is classified as a High Fire Hazard Severity Zone (see **Figure 5.20-1**, *SRA Fire Hazard Severity Zones – 2007*). The majority of the Proposed Project is over four miles from an SRA. Additionally, the Proposed 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 APMs are included.

## 1.8 REMAINING ISSUES

The Proposed Project would result in less-than-significant impacts with the implementation of APMs and BMPs as discussed herein. There are no significant areas of public controversy or concern. Proposed Project design is ongoing, including surveys for existing underground utilities along the proposed Grove to Skyline 320 kV DC transmission line route. As explained in **Section 4.0** and **Section 6.0**, the final results of the utility surveys may affect the final transmission line route through downtown San José. For this reason, LS Power has included a suite of potential downtown San José alternative route segments. Comparative impacts between the downtown San José alternative route segments is anticipated to be similar, as further discussed in **Section 6.0**. A Final Induction and AC/DC Interference Study (**APM HAZ-5**) would be prepared once existing utility surveys and sufficient transmission design are complete.

# 2.0 INTRODUCTION

LS Power Grid California, LLC ("LS Power"), a wholly owned subsidiary of LS Power Associates, L.P., established to own and operate transmission projects in the State of California, is proposing the Power Santa Clara Valley Project ("Proposed Project"). As required by the California Public Utilities Commission's (CPUC) Guidelines for Energy Project Applications Requiring California Environmental Quality Act (CEQA) Compliance Pre-filing and Proponent's Environmental Assessments (PEAs) and the CEQA Guidelines (14 Cal. Code of Regs. Section 15000 et seq), this section defines the objectives, purpose, and need for the Proposed Project. Additional information regarding LS Power's Proposed Project's purpose and need is provided in LS Power's Certificate of Public Convenience and Necessity (CPCN) application to the CPUC in accordance with CPUC General Order (GO) 131-D.

## 2.1 PROJECT BACKGROUND

The Proposed Project was identified by the California Independent System Operator (CAISO) in its 2021-2022 Transmission Plan as the "Metcalf to San Jose B HVDC Project" as a "reliability-driven" project that would address multiple near-term and long-term overloads on the San José area 115 kilovolt (kV) transmission system and would provide system reliability benefits for the Greater Bay Area.

### 2.1.1 PURPOSE AND NEED

The Proposed Project's purpose is to strengthen the electrical grid in the County of Santa Clara, California. The Proposed Project would:

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

These would be accomplished through the construction of two high-voltage direct current (HVDC) terminals and a new DC transmission line connecting the terminals. The northern terminal site is the proposed Skyline terminal, which is located west of State Route 87 and immediately south of the existing PG&E San Jose B substation. The southern terminal site is the proposed Grove terminal, which is located along Monterey Road approximately 0.2 mile west of U.S. Route 101 and approximately 0.65 mile south of the existing PG&E Metcalf substation. In addition to the terminals, the following primary components are proposed:

- One approximately 13-mile 320 kV direct current (DC) underground transmission line connecting the Skyline terminal to the Grove terminal;

- One new approximately 100-foot 115 kV alternating current (AC) overhead transmission line connecting the Skyline terminal to the existing PG&E San Jose B substation;
- One approximately 1.2-mile 500 kV AC underground transmission line connecting the Grove terminal to the existing PG&E Metcalf substation;
- Modifications to the existing PG&E Metcalf substation; and
- Expansion of the existing PG&E San Jose B substation.

While PG&E substation modification and expansion are part of the overall scope of the Proposed Project being reviewed and evaluated by the CPUC under CEQA in this proceeding, PG&E would likely utilize the adopted CEQA document to separately comply with the CPUC's permitting requirements under GO 131-D (see, e.g., CAISO 2022a, Gates 500 kV Dynamic Reactive Support Project (A.21-02-018), Final Initial Study/Mitigated Negative Declaration (8/4/2022) §2.4 ¶2).

**California Independent System Operator Overview**

CAISO is responsible for planning and managing the high-voltage transmission network (transmission grid) for approximately 80 percent of the State of California, including the service territory of PG&E, where the Proposed Project is located. CAISO undertakes an annual Transmission Planning Process (TPP) to identify reliability, public policy, and economic transmission solutions over a 10-year planning horizon. CAISO considers additional transmission facilities and/or changes in operation that would solve the problems, allowing the transmission grid to meet reliability objectives and criteria. In addition, CAISO evaluates the transmission grid's ability to help meet certain State of California government policy objectives including the Renewables Portfolio Standard (RPS). Finally, CAISO transmission planners and economists also examine whether transmission upgrades could save ratepayers money by reducing electric grid transmission congestion and allowing the use of lower-cost generation (CAISO, 2022).

**CAISO Transmission Planning**

Each year, CAISO provides a comprehensive evaluation of its transmission grid to identify 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. This transmission plan is updated annually and is prepared in the larger context of supporting the implementation of energy and environmental policies while maintaining reliability through a resilient electric system (CAISO, 2023a).

In its 2021-2022 planning cycle, 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's analysis, conducted through an open and stakeholder-inclusive planning process, led to the identification of the need for the Proposed Project as part of a comprehensive solution (relying in part on other upgrades already identified to meet reliability needs notwithstanding state policy objectives) to mitigate current and forecasted overloads in the San José area (CAISO, 2022).

The San José/SVP area is primarily served from the Newark 230/115 kV substation in the north and the Metcalf 500/230/115 kV substation in the south. Transmission planning studies prepared by CAISO included large load increases in the San José and SVP areas, including a significant load increase of approximately 500 megawatts (MW) in the SVP area. As a result, CAISO identified several reliability concerns, including multiple near-term and long-term overloads in the

San José area 115 kV transmission system. Due to the electrical proximity of the bulk of the area load to the existing Newark substation, specifically the SVP area load where most of the load increase is, the bulk of the power flows from the Newark side. Given this imbalance between two sources in the AC connected network, the Proposed Project would result in better performance from the power flow perspective as a result of the controllability of the HVDC source. Additionally, the Proposed Project would provide benefits in reducing local capacity requirements in the San José sub-area and overall Greater Bay Area that reduces reliance on the local gas generation. As such, CAISO identified the need for a Voltage-Sourced Converter (VSC) HVDC link in the San José area located near or adjacent to the existing PG&E San Jose B substation and Metcalf substation. The Proposed Project meets CAISO's originally approved technical specification for the identified need. (CAISO, 2022).

**CAISO Competitive Bid Process**

Following approval of the 2021-2022 Transmission Plan, in accordance with the Federal Energy Regulatory Commission's Order No. 1000 and the CAISO open-access transmission tariff, CAISO opened a competitive bid solicitation window in April 2022, which provided project sponsors the opportunity to submit proposals to finance, construct, own, operate, and maintain the Metcalf to San Jose B HVDC Project (i.e., the Proposed Project). CAISO specified a latest in-service date of June 1, 2028.

In March 2023, LS Power was selected by CAISO as the approved project sponsor for the Proposed Project. CAISO selected LS Power's proposal from a total of five validated proposals, all of which contained some form of cost containment to protect consumers from cost overruns. CAISO's selection report stated that LS Power's proposal provides "significantly greater cost certainty and lower projected overall costs than the cost containment proposals of the other project sponsors" (CAISO, 2023b).

### 2.1.2 PROJECT OBJECTIVES

The Proposed Project was selected because it best meets all of the objectives identified by CAISO in the 2021-2022 Transmission Plan and minimizes potential adverse environmental impacts. These 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 area 115 kV system.

- Meet the technical specifications set forth by CAISO for a VSC HVDC link in the San José area located near or adjacent to the existing PG&E San Jose B substation and Metcalf substation. Adjacency to the existing PG&E San Jose B and Metcalf substations would reduce the length of the interconnection (115 kV and 500 kV) transmission lines, thereby reducing right-of-way requirements and the potential for significant environmental impacts.

- Improve and maintain the reliability of the transmission grid by providing dynamic reactive power support and increase deliverability of renewable power, by building and operating a facility that would help keep transmission voltages within specified parameters, reduce transmission losses, increase reactive margin for the system bus, increase transmission capacity, provide a higher transient stability limit, increase damping of minor disturbances, and provide greater voltage control and stability.

- Facilitate deliverability of energy from existing and proposed renewable generation projects to the Greater Bay Area and corresponding progress toward achieving California's RPS goals in a timely and cost-effective manner by California utilities.

- Comply with and assist CAISO in meeting applicable Reliability Standards and Criteria developed by North American Electric Reliability Corporation, Western Electricity Coordinating Council, and CAISO.

- Design and construct the Proposed Project in conformance with LS Power's standards, the National Electric Safety Code, and other applicable national and state codes and regulations.

### 2.1.3 PROJECT APPLICANT

The Proposed Project is proposed by LS Power Grid California, LLC, a Delaware limited liability company established to own and operate transmission projects in California as a designated California Public Utility. LS Power Grid California, LLC is an indirect subsidiary of LS Power Associates, L.P. which, together with its subsidiaries and affiliates, is generally known as LS Power. Since it was founded in 1990, LS Power has developed or acquired more than 47,000 MW of competitive power generation and built over 780 miles of high-voltage transmission lines. Although PG&E is not an applicant in LS Power's application for a CPCN, PG&E's scope of work is needed to interconnect the Proposed Project to PG&E's electrical grid. PG&E's substation modification and expansion would be included in the CPUC's CEQA analysis; however, PG&E would likely utilize the adopted CEQA document to separately comply with the CPUC's permitting requirements under GO 131-D.

The Proposed Project is LS Power's seventh competitive transmission selection by CAISO. The first was the 2016 selection of LS Power affiliate DesertLink, LLC for the Harry Allen to Eldorado 500 kV Transmission Project, a 60-mile transmission line that was placed in service in August 2020. In January 2020, CAISO selected LS Power in a competitive solicitation for the Gates 500 kV Dynamic Reactive Support Project in Fresno County. In February 2020, CAISO selected LS Power in a competitive solicitation for the Round Mountain 500 kV Area Dynamic Reactive Support Project in Shasta County. In January 2023, CAISO selected LS Power in a competitive solicitation for the Manning 500/230 kV Substation Project and also the Collinsville 500/230 kV Substation Project in Fresno County and the East Bay area, respectively. Finally, in March 2023, CAISO selected LS Power in a competitive solicitation for the Newark to NRS HVDC Project in the South Bay area.

The Proposed Project would be remotely operated with no permanent workforce on-site during normal operations. The Proposed Project would be operated by LS Power's control center, which is staffed 24 hours per day, seven days per week, in Austin, Texas. Maintenance activities would be provided by LS Power's local maintenance/technical staff, utilizing existing internal LS Power staff and external resources for maintenance and emergency response. The Proposed Project would be incorporated into LS Power's existing operations, maintenance, and compliance programs using experienced staff and trusted contractors to provide operational and cost efficiencies with reduced risks. The Proposed Project would also be monitored by CAISO's control center in Folsom, California, and CAISO would have operational control of the HVDC terminals with authority to direct LS Power's control center.

## 2.2 PRE-FILING CONSULTATION AND PUBLIC OUTREACH

### 2.2.1 PROPOSED PROJECT PRE-FILING CONSULTATION AND PUBLIC OUTREACH

LS Power met with several regulatory agencies and has conducted targeted public outreach in the early planning stages of the Proposed Project to solicit input on the Proposed Project design and potential resource and land use issues in the vicinity of the Proposed Project. **Table 2-1**, *Pre-filing Consultations* summarizes the meetings and public outreach that took place during the development of this PEA and the CPCN application. Coordination with the agencies would continue through the Proposed Project's planning process with ministerial and discretionary permits applied for where necessary.

**Table 2-1: Pre-filing Consultations**

| Agency/ Outreach Party | Meeting Dates | Attendees | Summary of Discussions |
|---|---|---|---|
| CPUC | March 28, 2023;<br>August 22, 2023;<br>November 15, 2023;<br>December 4, 2023<br>Ongoing bi-weekly meetings starting in January 2024.<br>February 27, 2024 | LS Power staff and CPUC staff and third-party consultant | Pre-filing coordination, introduction to the Proposed Project, permitting requirements, and schedule. Site visit to review Proposed Project. |
| CAISO | Approved Project Sponsor Agreement (APSA) Negotiations: May through August 2023.<br>Quarterly Status Reports in July 2023, October 2023, December 2023, and March 2024.<br>Project kickoff meeting with San José on April 7, 2023.<br>February 6, 2024<br>March 5, 2024<br>April 15, 2024 | LS Power staff and CAISO staff | APSA negotiations; Quarterly status reports; Participated in project kickoff meeting with the City of San José and LS Power staff regarding proposed routing and siting and preliminary engineering; Future expansion and ultimate HVDC development plan. |
| PG&E | Kickoff meeting on April 6, 2023.<br>Ongoing bi-weekly meetings starting in July 2023. Various other coordination meetings. | LS Power staff and PG&E staff | Bi-weekly meetings to discuss interconnection to the existing PG&E Metcalf and San Jose B substations and GO 131-D coordination. |
| County of Santa Clara | May 11, 2023;<br>June 7, 2023;<br>July 6, 2023;<br>September 13, 2023 | LS Power staff and County of Santa Clara Supervisors and staff | Proposed Project summary; Public outreach plan; Proposed Project updates. |

| Table 2-1: Pre-filing Consultations | | | |
|---|---|---|---|
| **Agency/ Outreach Party** | **Meeting Dates** | **Attendees** | **Summary of Discussions** |
| City of San José | Ongoing approximately monthly meetings starting in March 2023. Various other coordination meetings | LS Power staff, City of San José staff, and City of San José Councilmembers | Coordination regarding proposed routing and siting, public outreach, preliminary engineering, permitting, and franchise agreement. |
| Santa Clara Valley Open Space Authority (OSA) and Peninsula Open Space Trust (POST) | April 5, 2023; June 21, 2023; July 13, 2023; July 24, 2023; September 25, 2023; November 2, 2023; December 11, 2023 February 8, 2024 April 3, 2024 | LS Power staff, OSA staff, and POST staff | Proposed Project summary; Terminal location siting and landowner outreach (OSA/POST preferred that LS Power site the terminal closer to existing developments and with a particular preference for use of the existing PG&E property); Routing and siting of the transmission lines; Concerns with lighting and noise impacts at terminal site; Possible cultural resource challenges; OSA communicated the ultimate goals of the Coyote Valley landscape and asked that LS Power consider when siting the Proposed Project; POST communicated the proposed wildlife crossing corridors and asked that LS Power consider when siting the Proposed Project. |
| OSA, POST, San José Department of Transportation, County of Santa Clara Parks and Recreation Department (SCC Parks), Land Trust of Santa Clara Valley, High-Speed Rail Authority (HSR), and California Department of Transportation ("Caltrans") | April 17, 2023 | LS Power staff, OSA staff, and POST staff | LS Power, OSA, POST, HSR, and SCC Parks gave overviews of planned work in the area; Monterey Road is the priority road but other roads (U.S. Route 101, Bailey Avenue, Santa Teresa Street, etc.) also being looked at for wildlife crossings; Further analysis to be conducted at preliminary wildlife crossing locations (Fisher Creek, Tulare Swale, Emado Road); Ongoing flooding issues with Coyote Creek; Future coordination on Monterey Road wildlife crossing locations. |
| Guadalupe River Park Conservancy | May 9, 2023 | LS Power staff and Guadalupe River Park Conservancy staff | Skyline terminal site overview; Opportunities to work together on landscaping and aesthetics at terminal site; Asked to explore the possibility of a walking path across the terminal site to reach downtown easier from the |

| Table 2-1: Pre-filing Consultations | | | |
|---|---|---|---|
| **Agency/ Outreach Party** | **Meeting Dates** | **Attendees** | **Summary of Discussions** |
| | | | Guadalupe River Trail; LS Power was asked to attend a Park master planning session in the future. |
| Santa Clara Valley Water District (SCVWD or "Valley Water") | Ongoing approximately monthly meetings starting in May 2023 | LS Power staff and SCVWD staff | Proposed Project summary, proposed routing and siting options for 500 kV transmission line on SCVWD property and the Coyote Creek crossing, licensing/easement process for Coyote Alamitos Canal, Coyote Canal, and Snell Pipeline, and SCVWD fee property access. |
| SCC Parks | April 25, 2023; June 8, 2023; September 20, 2023; December 5, 2023 February 8, 2024 February 15, 2024 | LS Power staff and SCC Parks staff | Coordination with SCC Parks regarding siting options for the 500 kV transmission line on SCC Parks property including the Coyote Creek crossing and the realignment of Coyote Ranch Road and Coyote Creek Trail. |
| Santa Clara County Roads and Airports Department (SCCRAD) and SCC Parks | October 6, 2023 | LS Power team, SCCRAD staff, and SCC Parks staff | Design criteria for potential Coyote Ranch Road vehicular bridge over Coyote Creek. |
| Santa Clara County Fairgrounds Management Corporation (Fairgrounds) | September 20, 2023 | LS Power staff and Fairgrounds staff | Potential use of fairground land as a staging area. |
| State of California Senate and Assembly; United States Congressional | August 7, 2023; September 20, 2023; October 4, 2023; October 16, 2023; November 8, 2023; November 15, 2023 | LS Power staff, California Senators, California Assembly Members, and California Congressional staff | Proposed Project summary; Public outreach plan; Proposed Project updates. |
| San Francisco Bay Regional Water Quality Control Board (RWQCB) | Coordination predominately in May and June 2023 | LS Power staff and RWQCB staff | Confirmation of the applicability of the Site Management Plan for the proposed Skyline terminal site. |
| San Jose Downtown Association | November 17, 2023 | LS Power staff and San Jose Downtown Association staff | Proposed Project summary; Coordinate future focused Proposed Project updates to San Jose Downtown Association groups |
| Caltrans | February 10, 2024 | LS Power staff and Caltrans staff | Proposed Project summary, proposed Caltrans crossing locations, licensing/easement |

| Table 2-1: Pre-filing Consultations | | | |
|---|---|---|---|
| **Agency/ Outreach Party** | **Meeting Dates** | **Attendees** | **Summary of Discussions** |
| | | | process, and use of Caltrans property as a staging area. |
| Native American Heritage Commission (NAHC) | A Sacred Lands File (SLF) search request was submitted on May 16, 2023. | No meeting was held as the coordination with SLF was an email search request. | The SLF search was returned by the NAHC with positive results on June 14, 2023, with instructions to contact the Muwekma Ohlone Indian Tribe of the San Franciso Bay Area and the Ohlone Indian Tribe. The NAHC also provided a list of Native American contacts who may be able to supply information pertinent to the Proposed Project area. Each of the 13 individuals listed were contacted by email sent on October 6, 2023. To date, three contacts have responded to outreach efforts, and their requests were taken in and included in the development of **Section 5.18**, *Tribal Cultural Resources*. |
| Grove Terminal Alternative Properties | N/A | N/A | Outreach to landowners of property in the vicinity of the existing Metcalf substation regarding the potential purchase of their property for siting the Grove terminal |
| Staging Area Landowners | N/A | N/A | Outreach to staging area landowners regarding the potential use of their property as a staging area for the Proposed Project |
| Westbury Downtown, LLC and Westbury Park, LLC | N/A | N/A | Outreach to landowner regarding necessary easements for the Proposed Project |

**Appendix 7-A**, *Cumulative Projects Table* shows additional development projects within an approximately two-mile radius of the Proposed Project, including project name, associated project description, location, proximity to the Proposed Project, and status of the associated project.

### Significant Consultation Outcomes

During the consultation and outreach efforts that took place during the development of this PEA and the CPCN application, LS Power reviewed the Proposed Project's route and terminal locations with numerous stakeholders. Significant outcomes from the consultation and outreach efforts that were incorporated into the Proposed Project include:

- Grove Terminal
    - Siting the proposed Grove terminal on the currently proposed property.

  - Siting the proposed Grove terminal along the northern portion of the proposed property to maintain a buffer along the proposed property's southern boundary line.
  - Shifting the proposed Grove terminal site west to maintain a larger buffer with Coyote Creek Parkway and the associated riparian habitat.
  - Minimize terminal lighting as practical to reduce light pollution.
  - Use beige, a grayish hue, or neutral earth-tone colors, as possible, for the enclosures and walls to best blend in with the surrounding landscape.
- Skyline Terminal
  - Siting the proposed Skyline terminal such that PG&E could locate the San Jose B substation expansion on the Skyline terminal property.
  - Siting the proposed Skyline terminal with a buffer to the Guadalupe River Park and Trail.
- Grove to Skyline 320 kV DC Transmission Line
  - Progression of the proposed underground transmission line route through Downtown San José.
- Metcalf to Grove 500 kV Transmission Line
  - Selection of the proposed underground transmission line route with a Coyote Creek horizontal directional drilling (HDD) instead of an alternative Coyote Creek crossing method.
  - Realignment of Coyote Ranch Road and Coyote Creek Trail.

### 2.2.2 RECORDS OF CONSULTATION AND PUBLIC OUTREACH

A summary of LS Power's consultations is provided in **Table 2-1** above. To date, LS Power has not conducted any open houses or otherwise performed outreach to the public at large. Throughout the approval process, LS Power would keep area residents and property owners, government officials, Native American Tribes, and interested parties informed about the scope of the Proposed Project through printed materials, one-on-one meetings, and presentations to local organizations.

During construction, LS Power would work to minimize disruptions from construction traffic and limit dust and noise. LS Power would continually communicate with government agencies, including the CPUC, County of Santa Clara, City of San José, local Native American Tribes, and any other applicable government officials, regarding construction plans.

## 2.3 ENVIRONMENTAL REVIEW PROCESS

### 2.3.1 PROPOSED PROJECT ENVIRONMENTAL REVIEW PROCESS

Public utilities are required to obtain a permit from the CPUC for construction of certain infrastructure listed under Public Utilities (PU) Code Section 1001. The CPUC's CPCN process includes two components: (1) an environmental review pursuant to the CEQA, and (2) the review of project need and costs pursuant to PU Code Section 1001 et seq.

For timing of the review process of all applicable permits, see **Table 3-8**, *Anticipated Permits and Approvals*, located in **Section 3.10.1**, *Anticipated Permits and Approvals*. No local discretionary (e.g., land use) permits are required because the CPUC has preemptive jurisdiction over the siting, construction, and the operation and maintenance (O&M) of the Proposed Project. The CPUC's authority does not preempt special districts, such as Air Quality Management Districts (AQMDs), other state agencies, or the Federal government. LS Power would obtain all applicable

ministerial permits from local jurisdictions, including the City of San José and the County of Santa Clara. LS Power would obtain ministerial permits, approvals, and licenses and would participate in reviews and consultations as needed with federal and state agencies.

### 2.3.2 CEQA REVIEW

CEQA requires state and local agencies in California to assess and disclose the potential adverse environmental consequences of discretionary actions. The CPUC has exclusive jurisdiction over the siting of electrical infrastructure projects greater than 50 kV and proposed by regulated public utilities. The Proposed Project would include new 115 kV, 320 kV, and 500 kV transmission lines. Furthermore, LS Power is a regulated public utility in the State of California and is subject to CPUC siting approval for applicable projects. As further outlined in **Table 3-8**, other agencies with potential ministerial authority over the Proposed Project include the City of San José , County of Santa Clara, and the SCVWD. For these reasons, the CPUC is the appropriate CEQA Lead Agency for the Proposed Project.

The CPUC conducts its environmental evaluation in accordance with both CEQA and with its own environmental rules. CEQA provides guidelines to ensure a thorough environmental evaluation. Specifically, it requires the examination of particular environmental issues such as water and air quality, greenhouse gases, noise, land uses, agricultural, biological, cultural and tribal resources, mineral resources, public services, utilities, wildfire, recreation, population and housing, hazards and hazardous materials, public safety, paleontological resources, transportation, and aesthetics.

According to Section 15002(g) of the CEQA Guidelines, "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." The CEQA Guidelines further define three types of environmental effects (or impacts): direct or primary effects that are caused by a project and occur at the same time and place, indirect or secondary effects that are reasonably foreseeable and caused by a project but occur at a different time or place, and cumulative effects. If it is determined that a project would cause a significant direct, indirect, or cumulative impact (or contribute considerably to an existing cumulative impact), CEQA requires that the analysis disclose such impacts and identify feasible mitigation measures for each significant environmental effect identified. This PEA analyzes the potential environmental impacts associated with the construction and O&M of the Proposed Project.

### 2.3.3 PRE-FILING CEQA COORDINATION

LS Power and the CPUC held a Pre-filing Consultation meeting on March 28, 2023, to discuss the Proposed Project. The agenda for the meeting included: an introduction to the Proposed Project, location review, purpose and need overview, and schedule. During the meeting, LS Power shared a summary of the Proposed Project description and preliminary mapping. The Proposed Project's need to be in-service by June 2028 was also discussed. Following the Pre-filing Consultation meeting, LS Power and CPUC have held additional meetings as summarized in **Table 2-1**.

LS Power submitted a Draft PEA for CPUC review on January 3, 2024, in compliance with the CPUC's Pre-filing process as outlined in the CPUC's *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing Proponent's Environmental Assessments*, updated November 2019.

In addition, on February 27, 2024, the CPUC and LS Power conducted a site visit of the Proposed Project. The site visit included a walking tour of the terminal properties as well as a driving tour of most of the proposed transmission line routes. The CPUC conducted a preliminary review of the Draft PEA and following the site visit, provided comments with recommendations to supplement the PEA in order for the CPCN application to be deemed complete in a timely manner. This PEA has been supplemented with additional information to address comments raised during the CPUC's preliminary review.

## 2.4 DOCUMENT ORGANIZATION

### 2.4.1 PEA ORGANIZATION

In accordance with the PEA Checklist, *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing Proponent's Environmental Assessments*, updated November 2019, the Proposed Project PEA is divided into nine sections as summarized below. **Appendix 2-A**, *PEA Checklist Table*, provides references for the location of required PEA elements.

**Section 1.0**, *Executive Summary.* This section provides a Proposed Project summary, land ownership and rights-of-way requirements, areas of controversy, summary of impacts, summary of alternatives, and a pre-filling consultation and public outreach summary.

**Section 2.0**, *Introduction.* This section provides a detailed description of the Proposed Project's background, pre-filling consultation and public outreach, environmental review process, and document organization. All figures in the PEA are included in **Appendix 1-A**.

**Section 3.0**, *Proposed Project Description.* This section provides a detailed description of the Proposed Project overview and components, existing and proposed system, land ownership, rights-of-way and easements, construction, construction workforce, equipment, traffic and schedule, post-construction, O&M, anticipated permits and approvals, Applicant Proposed Measures (APMs), and project description graphics, mapbook, and Geographic Information System (GIS) requirements.

**Section 4.0**, *Description of Alternatives.* This section describes the alternatives considered by LS Power during development of the Proposed Project.

**Section 5.0***, Environmental Analysis.* This section includes a description of the environmental setting, regulatory setting, and impact analysis for each resource area. The following resource areas are discussed in **Section 5.0**:

- 5.1 Aesthetics
- 5.2 Agriculture and Forestry Resources
- 5.3 Air Quality
- 5.4 Biological Resources
- 5.5 Cultural Resources
- 5.6 Energy
- 5.7 Geology, Soils, and Paleontological Resources
- 5.8 Greenhouse Gas Emissions
- 5.9 Hazards, Hazardous Materials, and Public Safety
- 5.10 Hydrology and Water Quality
- 5.11 Land Use and Planning

- 5.12 Mineral Resources
- 5.13 Noise
- 5.14 Population and Housing
- 5.15 Public Services
- 5.16 Recreation
- 5.17 Transportation
- 5.18 Tribal Cultural Resources
- 5.19 Utilities and Service Systems
- 5.20 Wildfire
- 5.21 Mandatory Findings of Significance

**Section 6.0**, *Comparison of Alternatives.* This section includes a comparison of the alternatives described in **Section 4.0**.

**Section 7.0**, *Cumulative and Other CEQA Considerations.* This section discusses the cumulative and growth-inducing impacts from the Proposed Project.

**Section 8.0**, *List of Preparers.* This section provides a list of people, their organization, and their qualifications for all authors and reviewers of each section of the PEA.

**Section 9.0***, References.* This section provides a full reference list for the PEA.

# 3.0 PROPOSED PROJECT DESCRIPTION

This section defines the Power Santa Clara Valley Project's ("Proposed Project's") location and components; describes the existing electric system; and explains how the Proposed Project would be implemented and its place within California's electrical transmission system. The Proposed Project includes components to be constructed and operated by LS Power Grid California, LLC ("LS Power") as well as a modification and expansion of existing Pacific Gas and Electric Company (PG&E) substations, which would be constructed and operated by PG&E. This section also describes the construction and operation of the Proposed Project, as well as identifies any permits or other approvals that may be needed to implement the Proposed Project. Finally, this section identifies any measures proposed by LS Power to avoid or minimize potential environmental impacts.

The Applicant Proposed Measures (APMs) and any mitigation measures ultimately imposed as part of this application proceeding would not apply to PG&E's scope of work. Although PG&E's substations are part of the Proposed Project being evaluated under the California Environmental Quality Act (CEQA), PG&E's construction is not part of this application and would not be authorized under this specific California Public Utilities Commission (CPUC) decision. However, the PG&E substation modification and expansion would be subject to all applicable regulatory requirements, and PG&E's Best Management Practices (BMPs) are incorporated into this Proponent's Environmental Assessment (PEA) and considered by the CPUC in its environmental review of the Proposed Project. PG&E's proposed BMPs are also identified in **Section 3.11.2**, *PG&E Best Management Practices.*

## 3.1 PROJECT OVERVIEW

The Proposed Project was approved by the California Independent System Operator (CAISO) to ensure the reliability of the CAISO-controlled grid. This would be accomplished through the construction of two new high-voltage direct current (HVDC) terminals and a new DC transmission line connecting the terminals. The Proposed Project is being proposed by LS Power, a Delaware limited liability company, established to own and operate transmission projects in California as a designated California Public Utility.

### Project Summary

The Proposed Project is located in the City of San José and County of Santa Clara, California as shown on **Figure 3-1**, *Project Vicinity*; **Figure 3-2**, *Project Location*; and **Figure 3-3**, *Project Overview*. The Proposed Project includes the following key elements:

- Two new HVDC terminals:
    - The new Skyline terminal adjacent to the existing PG&E San Jose B substation; and
    - The new Grove terminal in the vicinity of the existing PG&E Metcalf substation.
- One approximately 13-mile Grove to Skyline 320 kilovolt (kV) direct current (DC) underground transmission line connecting the Skyline terminal to the Grove terminal;
- One approximately 100-foot overhead Skyline to San Jose B 115 kV alternating current (AC) station tie line connecting the new Skyline terminal to PG&E's San Jose B substation;

- One 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; and
- Modifications to PG&E's Metcalf substation and expansion of PG&E's San Jose B substation to accommodate the new Metcalf to Grove 500 kV transmission line and the Skyline to San Jose B 115 kV station tie line would be completed by PG&E. However, the modifications performed by PG&E are included in this Proposed Project description as they are part of the overall transmission upgrade project.

**Project Location**

The proposed Grove terminal site consists of approximately 13.6 acres located along Monterey Road, about 0.2 mile west of U.S. Route 101 and approximately 0.65 mile south of the existing Metcalf substation (see **Figure 3-4**, *Project Route Map*). The City of San José and the unincorporated County of Santa Clara jurisdictional boundaries transverse across the four parcels that comprise the proposed Grove terminal site. Approximately 3.3 acres of the site from Monterey Road east is located within the City of San José and is zoned for Planned Development within an Agricultural Base District. The remaining approximately 10.3 acres are located within the unincorporated County of Santa Clara and are zoned for Agricultural uses. Surrounding land uses consist of office, industrial, and residential uses to the northwest; open space, Coyote Creek Parkway, and U.S. Route 101 to the northeast; a private lot consisting of disturbed land from a past orchard and a residential structure to the southeast; and Monterey Road and agricultural uses to the southwest. The proposed Grove terminal site is located in the Public Lands Survey System (PLSS) Township 7 South, Range 1 East.

The proposed Skyline terminal site is located in the City of San José and consists of approximately 8.0 acres within a 10.6-acre lot. The proposed Skyline terminal is located on the corner of Santa Teresa Street and Ryland Street, immediately south of the existing San Jose B substation, and is zoned for Downtown Primary Commercial uses. Surrounding land uses consist of the existing San Jose B substation to the north, State Route (SR)-87 to the east, commercial uses to the south, and the Guadalupe River Park and Trail to the west. This proposed terminal site is located in Township 7 South, Range 1 East, Mount Diablo Meridian in the PLSS.

The proposed Skyline to San Jose B 115 kV station tie line is located in the City of San José and would be installed on the proposed Skyline terminal site and span overhead across the fence to the adjacent PG&E San Jose B substation to the north (approximately 100 feet). The zoning designations associated with the proposed Skyline to San Jose B 115 kV station tie line are Downtown Primary Commercial and Combined Industrial/Commercial. Surrounding land uses consist of the existing San Jose B substation to the north, SR-87 to the east, commercial uses to the south, and Guadalupe River Park and Trail to the west. The proposed Skyline to San Jose B 115 kV station tie line is located in PLSS Township 7 South and Range 1 East.

The proposed Grove to Skyline 320 kV DC transmission line is located within both the City of San José and the County of Santa Clara jurisdictional areas and would span approximately 13 miles. The proposed Grove to Skyline 320 kV DC transmission line is proposed to be located completely underground, predominantly within existing public rights-of-way (ROWs). The proposed alignment of this DC transmission line would connect from the proposed Skyline terminal to the proposed Grove terminal predominately along the following roads: Bassett Street, Little Market Street, Market Street, First Street, and Monterey Road. Surrounding land uses consist of residential, commercial, industrial (light and heavy), transit, open space, developed parks, convention center,

and agriculture. The proposed Grove to Skyline 320 kV DC transmission line is located in PLSS Township 8 South and 2 East, 8 South and 1 East, and 7 South and 1 East.

The proposed Metcalf to Grove 500 kV transmission line is located within both the City of San José and the County of Santa Clara jurisdictional areas. Approximately one mile of the proposed 1.2-mile Metcalf to Grove 500 kV underground transmission line would be located within Coyote Ranch Road, and approximately 0.2 mile would traverse undeveloped and natural areas on Santa Clara County land. Surrounding land uses consist of agriculture and open space within the City of San José and a regional park within the County of Santa Clara. The proposed Metcalf to Grove 500 kV transmission line is located in the PLSS Township 8 South and 2 East.

## 3.2 EXISTING AND PROPOSED SYSTEM

### 3.2.1 EXISTING SYSTEM

The Proposed Project is located within an existing regional transmission system that provides electricity to the Greater San Franciso Bay Area ("Greater Bay Area"). The Greater Bay Area is at the center of PG&E's service territory, serving five counties including the County of Santa Clara. The Greater Bay Area is divided into three sub-areas: East Bay, South Bay, and San Francisco Peninsula. The Proposed Project is located within the South Bay sub-area.

The South Bay sub-area covers approximately 1,500 square miles and includes the De Anza and San José divisions and the City of Santa Clara. Generation facilities in this sub-area include Calpine's Metcalf Energy Center, Calpine's Los Esteros Energy Center, Calpine's Gilroy Power Units, and Silicon Valley Power's (SVP's) Donald Von Raesfeld Power Plant. Key interconnections are also provided in this sub-area to the Moss Landing and Tesla substations.

The San José/SVP area is generally served from the Newark 230/115 kV substation in the north and the Metcalf 500/230/115 kV substation in the south. The existing system in the Greater Bay Area also includes numerous existing PG&E overhead and underground electric transmission lines and distribution lines that serve the immediate area. The existing transmission system is shown in **Figure 3-5,** *Transmission System of Power Santa Clara Valley Project*.

The existing Metcalf substation is approximately 47 acres and is located in unincorporated Santa Clara County, near the intersection of Metcalf Road and Monterey Road. The existing San Jose B substation is approximately 2.1 acres and is located in the City of San José, at the intersection of Coleman Avenue and Santa Teresa Street. There are currently two 115 kV lines that connect the existing PG&E Metcalf and San Jose B substations, with each 115 kV line having intermediate stops at other substations.

### 3.2.2 PROPOSED PROJECT SYSTEM

The main components of the Proposed Project's system consist of two new HVDC terminals and three new transmission lines. One transmission line would connect the HVDC terminals while the other two transmission lines would be independently connected to two existing substations: the existing PG&E San Jose B and Metcalf substations (refer to **Figure 3-4**). The new electric transmission lines would create an additional system tie between the existing PG&E Metcalf and San Jose B substations. The new HVDC terminals (named the Grove terminal and Skyline terminal) would each ultimately be capable of 1,044 megavolt amperes (MVA) or 1,000 megawatts (MW) and 300 megavolt amperes of reactive power (MVAR). Initially, the Proposed Project would allow the delivery of 500 MW between the existing PG&E Metcalf and San Jose B

substations while being able to inject/absorb 150 MVAR of reactive power at each terminal. The Proposed Project would not serve any additional end users beyond those already being served by the existing system. The HVDC terminals' reactive power output would support the regional transmission system by providing voltage support to the electrical grid in the vicinity of the HVDC terminals, as discussed further in **Section 3.2.3**, *System Reliability*. Each new HVDC terminal would include Voltage Source Converter (VSC) HVDC equipment, an AC switchyard using gas-insulated switchgear (GIS) in a breaker-and-a-half (BAAH) configuration, and three single-phase converter transformers including an on-site spare. The VSC HVDC equipment and the GIS switchyards would be located within separate enclosures designed to protect the equipment from environmental and physical threats. Specific equipment and components for each proposed HVDC terminal is discussed further in **Section 3.3.4.1**, *HVDC Terminal Facilities*. See **Figure 3-5** and **Figure 3-6**, *Skyline Terminal to Grove Terminal Schematic* for depictions of the existing and proposed systems affected by the Proposed Project.

The two new HVDC terminals and the proposed Grove to Skyline 320 kV DC transmission line would interconnect with the existing transmission system via the new Skyline to San Jose B 115 kV station tie line and the new Metcalf to Grove 500 kV transmission line. Specifically, the new Skyline terminal would be interconnected with the existing PG&E San Jose B substation via a new short, over-the-fence Skyline to San Jose B 115 kV station tie line connection that would connect to a PG&E-owned dead-end structure (see **Figure 3-7**, *HVDC Terminal General Arrangements*). The proposed Skyline to San Jose B 115 kV station tie line would be rated at 522 MVA. PG&E would rebuild and expand the existing San Jose B substation using GIS in a BAAH configuration to create a bay position for the new Skyline to San Jose B 115 kV station tie line. The rebuilt and expanded San Jose B substation would be located on the existing substation site and partially within the proposed Skyline terminal site, as shown on **Figure 3-7**. The rebuilt and expanded San Jose B substation would allow for the Proposed Project's delivery of 500 MW.

The new Grove terminal would be interconnected with the existing PG&E Metcalf substation via a new approximately 1.2-mile underground Metcalf to Grove 500 kV transmission line that would transition above ground at a steel substation riser structure located within the northwestern boundary of the existing Metcalf substation property line. To provide a bay position for the new Metcalf to Grove 500 kV transmission line connection, PG&E would need to add electrical infrastructure within the existing Metcalf substation. PG&E would add grounding, conduits and wiring, foundations, support structures, bus work, breakers, disconnect switches, jumpers, and associated protection and control equipment to the existing 500 kV substation yard. The existing Metcalf substation modification area is shown on **Figure 3-4**. The Proposed Project would not change the capacity of the existing Metcalf substation.

Excavation and installation of the concrete-encased duct bank and associated splice vaults would require the relocation of certain third-party utilities in areas of conflict. Utilities would be avoided where practicable, but some utilities would require relocation. Utilities that would require relocation may include sanitary sewer, stormwater, gas, water, electric, and telecommunication. There are four underground distribution circuits crossing the proposed Skyline terminal site in duct bank(s) that conflict with PG&E's planned rebuild and expansion of the existing San Jose B substation. PG&E would relocate the distribution lines and associated duct banks on the Skyline terminal site to avoid conflicts. Additionally, deactivated underground PG&E distribution lines cross the proposed Skyline terminal site and would be removed as required for the Proposed Project. Finally, as part of the expansion to the existing San Jose B substation, existing transmission and distribution line connections may be adjusted. These changes are anticipated to affect the line between the substation dead-ends and the first off-site structure(s). There are also approximately

four wooden poles associated with a radial distribution line currently serving the proposed Grove terminal site that would need to be removed. No other changes to the existing distribution system would occur.

There are currently no definitive plans for future expansion of the Proposed Project. Conceptual future expansion plans are further discussed in **Section 3.3.6**, *Future Expansion and Equipment Lifespans.*

All new facilities and interrelated activities associated with the Proposed Project are described in **Section 3.3**, *Project Components*, and a layout diagram of the HVDC terminal facilities is provided in **Figure 3-7**.

### 3.2.3 SYSTEM RELIABILITY

The San José/SVP area is primarily served from the Newark 230/115 kV substation in the north and the Metcalf 500/230/115 kV substation in the south. Transmission planning studies prepared by CAISO included large load increases in the San José and SVP areas, including a significant load increase of approximately 500 MW in the SVP area. As a result, CAISO identified several reliability concerns, including multiple near-term and long-term overloads in the San José area 115 kV transmission system. Due to the electrical proximity of the bulk of the area load to the Newark substation, specifically the SVP area load where most of the load increase is, the bulk of the power wants to flow from the Newark side. Given this imbalance between two sources in the AC connected network, the Proposed Project would result in better performance from the power flow perspective as a result of the controllability of the HVDC source. Additionally, the Proposed Project would provide benefits in reducing local capacity requirements in the San José sub-area and overall Greater Bay Area that reduces reliance on the local gas-fired generation. As such, CAISO identified the need for the Proposed Project.

The Proposed Project would provide a new system tie between the existing Metcalf and San Jose B substations, increasing capacity and controllability. The Proposed Project would not be considered a looped system.

The Proposed Project would initially allow the delivery of 500 MW between the existing PG&E Metcalf and San Jose B substations while being able to inject/absorb 150 MVAR of reactive power at each terminal. The HVDC terminals would be capable of 1,044 MVA (or 1,000 MW with 300 MVAR). The reactive power would support the regional transmission system by providing voltage support to the electrical grid in the vicinity of the HVDC terminals. Additionally, this voltage support would be available independent of the real power flow on the DC transmission line. If just the DC transmission line were to go out of service, the proposed Grove terminal and the proposed Skyline terminal would each still be able to operate as a static synchronous compensator (STATCOM) to provide voltage support to the regional transmission system. The proposed DC transmission line and associated HVDC terminals would provide a superior level of controllability compared to the existing AC transmission lines as well as the ability to provide fast response reactive power support. The Proposed Project was developed in response to the CAISO-identified reliability issues and would provide system reliability benefits for the Greater Bay Area.

### 3.2.4 PLANNING AREA

The Greater Bay Area is at the center of PG&E's service territory, serving five counties including the County of Santa Clara. The Greater Bay Area is a planning area that is divided into three sub-

areas: East Bay, South Bay, and San Francisco Peninsula. The Proposed Project, in conjunction with the existing PG&E San Jose B and Metcalf substations, would support the existing regional transmission system that provides electricity to the South Bay sub-area of the Greater Bay Area. Therefore, the system planning area served by the Proposed Project is identified as the "Greater Bay Area". The term "regional transmission system" is used to describe the network that provides electricity to this planning area. The larger, regional system that provides electricity to all of PG&E's customers is identified as the "bulk PG&E transmission system."

## 3.3 PROJECT COMPONENTS

### 3.3.1 PRELIMINARY DESIGN AND ENGINEERING

The main Proposed Project component is the development of two new HVDC terminals that would be interconnected to the existing PG&E San Jose B and Metcalf substations. A detailed Proposed Project map that identifies the locations of the major Proposed Project components, as well as the access roads, is included in **Figure 3-4**. The individual components of the Proposed Project are discussed in greater detail in **Section 3.3.4**, *Proposed Facilities*.

LS Power has completed approximately 30 percent engineering design for the Proposed Project, and PG&E has completed approximately five percent engineering design for their scope of work at the Metcalf and San Jose B substations. As such, the information in this document is based on preliminary engineering design and is subject to change through the final engineering design, further studies to be performed by PG&E, regulatory requirements, conditions on the ground, and ongoing coordination discussions among LS Power, PG&E, CPUC, and CAISO.

### 3.3.2 SEGMENTS, COMPONENTS, AND PHASES

All components of the Proposed Project would be installed during a single phase (i.e., continuous duration) of construction. The preliminary construction schedule is described in **Section 3.6.4**, *Construction Schedule*. The primary components of the Proposed Project are as follows:

- New Skyline terminal (~4.5 acres fenceline);
- New Grove terminal (~6.3 acres fenceline);
- New Grove to Skyline 320 kV DC transmission line (~13 miles);
    - Downtown San José Segment
- New Metcalf to Grove 500 kV AC transmission line (~1.2 miles);
- New Skyline to San Jose B 115 kV AC station tie line (~100 feet);
- Modifications to the existing PG&E Metcalf substation (~2.7 acres); and
- Expansion of the existing PG&E San Jose B substation (~2.8 acres).

These Proposed Project components are further described in the sections below.

### 3.3.3 EXISTING FACILITIES

The Proposed Project would include all new facilities, removal of existing wooden distribution poles, and modifications to the existing PG&E Metcalf substation and expansion of the San Jose

B substation to accommodate the new transmission lines. Related existing facilities are described in the following subsections, which include details regarding the existing conditions of the proposed HVDC terminal sites, existing substations, and existing transmission and distribution lines that would affected by the Proposed Project.

#### 3.3.3.1 Proposed HVDC Terminal Sites Existing Conditions

The proposed Skyline terminal site currently consists of a highly disturbed, vacant, undeveloped approximately 10.6-acre lot (Assessor Parcel Numbers [APNs] 259-23-020 and 259-23-024)[1]. The site is within a former railyard that has had the previously existing railyard facilities removed. There are four underground distribution circuits crossing the proposed Skyline terminal site in duct bank(s) that conflict with PG&E's planned rebuild and expansion of the existing PG&E San Jose B substation. PG&E would relocate the distribution lines and associated duct banks on the proposed Skyline terminal site to avoid conflicts. PG&E construction would entail excavating the new duct bank, installation of the new cables, obtaining the necessary clearances for the cutover, and removal of the existing distribution facilities. Additionally, deactivated underground PG&E distribution lines cross the proposed Skyline terminal site and would be removed as required for the Proposed Project.

The proposed Grove terminal site is located on an approximately 13.6-acre property (APNs 725-14-008, 725-14-009, 725-14-014, and 725-14-015) that is currently used as an orchard with a perimeter fence, well, deteriorating outbuilding, and a radial electric distribution line currently sourced from the existing PG&E Edenvale substation. The existing perimeter fence, deteriorating outbuilding, and a radial electric distribution line at the proposed Grove terminal site would be removed. Existing vegetation (orchard trees) along the Monterey Road frontage would be retained as screening (refer to **Figure 3-4**). The existing distribution line facilities consist of approximately four wooden poles that are approximately 40 feet tall, pole-mounted transformers, and distribution conductors. The proposed Grove terminal site would require clearing of approximately 13.6 acres of orchard trees and removal of the existing distribution line, which is further discussed in **Section 3.5.4**, *Site Preparation.*

#### 3.3.3.2 Existing Substations

The existing PG&E San Jose B substation is a 115 kV transmission substation that is currently connected to four 115 kV transmission lines and approximately 17 distribution lines. The existing substation facility is approximately 2.1 acres in size and contains an existing Spill Prevention, Control, and Countermeasures (SPCC) pond. The SPCC pond would need to be upgraded to account for the San Jose B substation expansion. Existing facilities at the San Jose B substation range in height up to approximately 105 feet above-grade while new facilities for the expansion of the San Jose B substation would range in height up to approximately 95 feet above-grade. For security reasons, PG&E prefers not to identify specific substation components or provide detailed information on the location of substation facilities. The existing San Jose B substation is depicted in **Figures 3-3** and **3-4**.

The existing PG&E Metcalf substation is a 500/230/115 kV transmission substation that is currently connected to two 500 kV transmission lines, eight 230 kV transmission lines, and 11 115 kV transmission lines. The existing operating substation facility is approximately 47 acres in size and contains two SPCC ponds that are not proposed to be modified by the Proposed Project. An

[1] Records from the Santa Clara Valley Water District document two wells located on the Skyline terminal property. However, the wells were not identified during surveys conducted for the Proposed Project.

additional 11 acres on the substation site parcel are currently used for material storage and as an operations and maintenance (O&M) support facility. Existing facilities at the Metcalf substation range in height up to approximately 130 feet above-grade while new facilities for the modification of the Metcalf substation would range in height up to approximately 105 feet above-grade. For security reasons, PG&E prefers not to identify specific substation components or provide detailed information on the location of substation facilities. The existing Metcalf substation is depicted in **Figures 3-3** and **3-4**.

**Section 3.2.1**, *Existing System* provides additional details regarding the existing PG&E Metcalf and San Jose B substations. There are no improvements expected to be required to the existing access roads for the existing substations.

Existing PG&E substation facilities are generally gray and non-reflective with existing lighting installed at the substations. New substation facilities would generally also be gray and non-reflective. For the modifications to PG&E's Metcalf substation and expansion of PG&E's San Jose B substation, new lighting would be installed per standard and would be determined during detailed design. Outdoor lighting additions would be in line with Institute of Electrical and Electronics Engineers (IEEE) C2 to provide two foot-candle intensity, and light emitting diode (LED) lighting would be used to meet latest efficiency recommendations in California Title 24.

#### 3.3.3.3 Existing Transmission and Distribution Lines

One existing PG&E distribution line is located on the proposed Grove terminal site, as discussed above. Additionally, four existing PG&E underground distribution lines are located on the proposed Skyline terminal site, as discussed above. The Proposed Project would not directly affect any other existing transmission or distribution lines. If conflicts with existing transmission or distribution lines are discovered during final engineering of the transmission line alignments, LS Power would work with the owner of those utilities to determine if design changes can be made or if utility relocation is necessary.

As part of the expansion to the existing San Jose B substation, existing transmission and distribution line connections may be adjusted. These changes are anticipated to affect the line between the substation dead-ends and the first off-site structure(s). **Section 3.2.1** provides additional details regarding existing transmission and distribution lines in the Proposed Project area.

### 3.3.4 PROPOSED FACILITIES

#### 3.3.4.1 HVDC Terminal Facilities

The proposed HVDC terminals' primary function would be to convert AC to DC at the sending terminal and to convert DC back to AC at the receiving terminal. To facilitate this conversion, each new HVDC terminal would include VSC HVDC equipment, an AC switchyard using GIS in a BAAH configuration, and three single-phase converter transformers including an on-site spare. The VSC HVDC equipment and the GIS switchyards would be located within separate enclosures designed to protect the equipment from environmental and physical threats. Specific equipment and components for each proposed HVDC terminal are provided below.

### Skyline Terminal

The proposed Skyline terminal site would be constructed immediately south of the existing San Jose B substation, within a 10.6-acre lot (APNs 259-23-020 and 259-23-024) currently owned by LS Power. Construction of the proposed Skyline terminal would temporarily disturb a total area of approximately 8.0 acres, and the final fenced terminal would be approximately 4.5 acres in size. However, the permanently disturbed area (including areas outside of the fenced terminal) would be approximately 5.1 acres. **Figure 3-7** depicts the proposed terminal layout and arrangement of major equipment and structures.

The proposed HVDC terminal is anticipated to include above ground facilities supported by a combination of deep, reinforced drilled shaft foundations, slab foundations with spread footings, and piles. The tallest structures within the HVDC terminal facility would be the approximately 100-foot-tall lightning shielding masts. The proposed Skyline terminal facility would include the VSC HVDC equipment, three single-phase converter transformers including an on-site spare, three 115 kV sulfur hexafluoride ($SF_6$) gas-insulated circuit breakers and associated bus, disconnect switches, current transformers, voltage transformers, and termination/riser structures.

### Grove Terminal

The proposed Grove terminal site would be constructed approximately 0.65 mile south of the existing Metcalf substation, within approximately 13.6 acres (APNs 725-14-008, 725-14-009, 725-14-014, and 725-14-015) that is under an exclusive option to purchase by LS Power. Construction of the proposed Grove terminal would temporarily disturb a total area of approximately 12.8 acres. LS Power proposes to retain the Monterey Road frontage, including the existing vegetation, for visual screening. The final fenced Grove terminal would be approximately 6.3 acres, and the permanent disturbance area would be approximately 7.4 acres, as shown in **Figure 3-7**.

The proposed HVDC terminal is anticipated to include aboveground facilities supported by a combination of deep, reinforced drilled shaft foundations, slab foundations with spread footings, and piles. The tallest structures within the terminal facility would be the approximately 100-foot-tall lightning shielding masts. The proposed Grove terminal facility would include the VSC HVDC equipment, three single-phase converter transformers including an on-site spare, and three 500 kV $SF_6$ gas-insulated circuit breakers and associated bus, disconnect switches, current transformers, voltage transformers, and termination/riser structures.

### Ancillary Terminal Components for Grove and Skyline

The Proposed Project includes AC switchyards at each HVDC terminal that would use GIS in a BAAH configuration. Both GIS switchyards would be located within an enclosure designed to protect the equipment from environmental and physical threats (refer to **Figure 3-7**).

All major substation equipment (e.g., VSC HVDC equipment, GIS, converter transformers, cooling equipment, etc.) would be installed on concrete foundations. Each transformer would have an oil containment system consisting of an impervious, lined, open, or stone-filled sump area around the transformer. The maximum amount of oil required for the transformers would be approximately 25,000 gallons for each of the transformers. Transformer oil containment basins are designed to contain the oil volume of the transformers plus a 25-year, 24-hour storm event.

The general layout and arrangement of the major terminal equipment is shown in **Figure 3-7**. **Figure 3-8**, *HVDC Terminal Site Profile Drawings* provides an elevation view of the terminal sites and includes the approximate height of various terminal equipment. HVDC terminal facilities, like those included in the Proposed Project, are designed to meet project-specific requirements and specifications. Therefore, design drawings and simulations (refer to **Section 5.1**, *Aesthetics*) have been included with the PEA to depict the visual appearance of the proposed Skyline and Grove terminals. Representative photographs have not been included as they would not accurately reflect the anticipated appearance of the proposed facilities as well as the simulations.

Equipment and enclosures at the terminal sites would be non-reflective as practicable and neutral gray or neutral earth-tone colors. Enclosure roofs would typically be white. Lighting would be installed at the terminal locations and would conform to National Electric Safety Code (NESC) requirements and other applicable outdoor lighting codes. The Grove terminal site is not anticipated to typically require nighttime illumination. The Skyline terminal is anticipated to typically require nighttime illumination. Terminal station lighting would be photocell and motion controlled to provide illumination for security. LED lights would be mounted on A-frames, H-frames, structures, poles, and enclosures as required. All lighting provided would be shielded and pointed down to minimize glare onto surrounding properties and habitats.

The new HVDC terminals would be primarily powered by a tertiary winding on a converter transformer at each terminal to step-down the energy from the transmission voltage level to the distribution voltage level. An electric distribution line would be installed to provide backup power for each terminal. For the proposed Grove terminal, a nearby existing PG&E distribution line is located along the southwestern boundary of the terminal site. For the proposed Skyline terminal, multiple existing PG&E distribution lines are located along the northern boundary of the terminal site (refer to **Figures 3-4** and **3-7**).

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

The stormwater detention system is designed to capture the runoff from a 100-year storm, 24-hour rainfall event and then release the captured water. Overflow from the detention system would be returned to sheet flow via a level spreader that would provide for sheet flow of the stormwater to the adjacent land surface during storms that exceed the system's design capacity. The level spreading approach would control erosion and prevent scouring at discharge locations.

For the proposed PG&E substation modifications, additional stormwater management measures may be required to address runoff from new or redeveloped impervious areas. If additional stormwater management measures are required, it may be possible to design measures that address a combination of stormwater management requirements (as opposed to designing separate measures to comply with each set of requirements).

Disturbance area characteristics for the Proposed Project are discussed in **Section 3.5**, *Construction*. All facilities at the terminal locations, including the associated access roads and

stormwater drainage and conveyance system, would occur within the two terminal sites owned by LS Power.

Belowground work for the HVDC terminal facilities would include the construction of the foundations for the terminal equipment and enclosures, oil containment for transformers, ground grid, low voltage cable needed for terminal equipment, conduit, and underground transmission line, including duct banks and splice vaults. It is anticipated that ground disturbance depth would not to exceed approximately 50 feet for terminal equipment drilled shaft foundations and approximately100 feet for piles.

#### 3.3.4.2 Transmission Lines

**Grove to Skyline 320 kV DC Transmission Line**

A new single-circuit Grove to Skyline 320 kV DC transmission line would be constructed to connect the proposed Skyline terminal to the proposed Grove terminal. The proposed Grove to Skyline 320 kV DC transmission line would be approximately 13 miles in length, would be rated at 1,000 MW, and would be installed underground (refer to **Figures 3-3** and **3-4**). This single-circuit transmission line would consist of two 2500 $mm^2$ copper 320 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 would be encased within a duct bank proposed to have five smaller internal ducts: three eight-inch ducts for conductor (with two ducts for the installed transmission cable and one duct as a spare) and two two-inch ducts for fiber optic cables. The minimum depth for the top of the duct bank would be approximately three feet, with the top of the duct bank typically varying between approximately three to 10 feet beneath the surface. The typical width for the underground duct bank would be approximately 2.5 feet. The trench excavation width would typically vary between three to four feet, based on shoring requirements. A duct bank would generally be used everywhere, except where trenchless crossings are required. The Grove to Skyline 320 kV DC transmission line includes four proposed trenchless crossings: three jack-and-bore locations (under existing railroad lines) and one horizontal directional drill (HDD) location (under an existing concrete culvert for Fisher Creek). These trenchless crossings are shown in **Figure 3-4**. Typical duct bank diagrams have been provided as **Figure 3-9**, *Typical Duct Bank Configurations*.

Underground splice vaults would be located approximately every 1,500 to 3,000 feet with dimensions of approximately 32 feet long, 10 feet wide, and 10 feet tall. The splice vault excavation would be approximately three feet wider on each side for installation of the splice vault. Splice vaults would be sited during detailed engineering design based on gathered utility data and cable supplier specifications. 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. During construction, it is anticipated that up to three separate construction crews would be working on splice vault installations at different locations along the proposed transmission lines concurrently. Splice vaults would provide entry points for both conductor installation (during construction) and worker access (during O&M). The conductor cables would be installed in the duct bank following installation of the duct bank and splice vaults. Cable installation activities would occur at all splice vault locations and near the termination structures at the HVDC terminal sites. During operation, the vaults would provide access to the underground cables for maintenance inspections, repairs, and replacement, if needed. 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. Typical splice vault dimensions and configurations are provided in **Figure 3-10**, *Typical Splice Vault Diagrams*.

The Proposed Project's Grove to Skyline 320 kV DC transmission line would enter the HVDC terminals underground and transition above ground at a steel substation termination/riser structure. The new termination/riser structure would be approximately 25 feet tall. **Figure 3-11**, *Typical Termination & Riser Structures* provides details and typical metrics for the proposed 320 kV DC termination/riser structures.

Jack-and-bore crossings would include a 36-inch casing pipe; three eight-inch ducts with two ducts for the installed cable and one duct as a spare; two two-inch ducts for fiber optic cables; a wheel assembly with spacers to keep the ducts properly spaced within the casing; and a bentonite slurry fill. **Figure 3-12**, *Typical 320 kV DC Jack-and-Bore Diagrams* depicts the typical jack-and-bore operation, components, and dimensions. Typical work areas for jack-and-bore crossings are discussed further in **Section 3.5.3.1**, *Construction Work Areas*, and the jack-and-bore technique is also further discussed in **Section 3.5.6.2***, Trenchless Techniques.*

HDD crossings would include three ten-inch ducts, with two ducts for the installed cable and one duct as a spare, and two four-inch ducts for the fiber optic cables. The ducts would either be pulled through the unreinforced bore hole or an approximately 30-inch casing pipe would be installed. If a casing pipe is used, the ducts would be pulled through the casing and the remaining space backfilled with a thermal grout. **Figure 3-13**, *Typical HDD Diagram* depicts the typical HDD operation, components, and dimensions. Typical work areas for HDD crossings are discussed further in **Section 3.5.3.1**, and the HDD technique is also further discussed in **Section 3.5.6.2**.

**Downtown San José Segment – Grove to Skyline 320 kV Transmission Line**

The final routing of the Downtown San José segment of the proposed Grove to Skyline 320 kV transmission line, generally defined as the final approximately 1.5-mile portion of the transmission line from the Interstate (I)-280 underpass for First Street to the proposed Skyline terminal, would be dependent upon existing underground utilities and their associated encumbrance on the available belowground space within existing roadway ROW. While this PEA includes a proposed alignment for the Downtown San José segment, LS Power continues to survey existing underground utilities and consult with the City of San José to identify and account for existing underground constraints within the Downtown San José area. Detailed utility surveys may ultimately determine that it is not feasible to route the Grove to Skyline 320 kV DC transmission line in some streets in Downtown San José. Hence, LS Power considered a number of routing alternatives for the Grove to Skyline 320 kV DC transmission Downtown San José segment, as further detailed in **Section 4.0**, *Description of Alternatives*. As further described in **Section 6.0**, *Comparison of Alternatives*, anticipated adverse environmental impacts between the Downtown San José segment alternatives are anticipated to be similar.

**Skyline to San Jose B 115 kV Station Tie Line**

The proposed Skyline to San Jose B 115 kV station tie line would be constructed to connect the proposed Skyline terminal to the existing, rebuilt and expanded PG&E San Jose B substation. This transmission line would be a short, single-circuit, over-the-fence segment, as the proposed Skyline terminal is located on a property immediately south of the existing PG&E San Jose B

substation. Refer to **Figure 3-7** for the proposed location of the Skyline to San Jose B 115 kV station tie line. The tie line is anticipated to require structures up to approximately 60 feet tall.

**Metcalf to Grove 500 kV Transmission Line**

The new Metcalf to Grove 500 kV transmission line would be constructed to connect the proposed Grove terminal to the existing PG&E Metcalf substation. This proposed Metcalf to Grove 500 kV transmission line would be approximately 1.2 miles in length and would be located underground (refer to **Figures 3-3** and **3-4**). This single-circuit underground transmission line would consist of three 2500 $mm^2$ copper 500 kV single core XLPE cables composed of a copper conductor, conductor binder and screen, XLPE insulation, insulation screen, water barrier, metallic sheath, and an outer jacket. The cable would be installed in a concrete-encased duct bank system, similar to that of the new Grove to Skyline 320 kV DC transmission line (refer to **Figure 3-9**) and require a similar excavation width. The proposed underground Metcalf to Grove 500 kV transmission line would be encased within a duct bank proposed to have seven smaller internal ducts: four eight-inch ducts for the conductor (with three ducts for the installed XLPE cable and one duct as a spare), and three two-inch ducts with two for fiber optic cables and one for a ground wire. A duct bank would generally be used everywhere, except where trenchless crossings are required. The Metcalf to Grove 500 kV transmission line would include one HDD crossing under Coyote Creek. The Coyote Creek trenchless crossing is shown in **Figure 3-4**.

The conductor cables would be installed in the duct bank once the duct bank and splice vaults are installed. Underground splice vaults would be located approximately every 1,500 to 3,000 feet with dimensions of approximately 40 feet long, 10 feet wide, and 10 feet tall. The bottom of the splice vaults would typically be located approximately 12 feet below ground level. Typical splice vault dimensions and configurations are provided in **Figure 3-10**.

Based on preliminary engineering, individual HDD bore holes would be required under Coyote Creek to separate the XLPE cables in order to meet the Proposed Project's required ratings. Hence, four bore holes, with a spacing of approximately 20 feet between bore holes, would be drilled under Coyote Creek. The HDD crossing would include four ten-inch ducts, with three ducts for the installed cable and three duct as a spare (one spare in each bore hole), and four four-inch ducts with two for fiber optic cables, one for a ground wire, and one for a spare. The ducts would either 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 backfilled with a thermal grout. **Figure 3-13** depicts the typical HDD operation, components, and dimensions.

The Proposed Project's Metcalf to Grove 500 kV transmission line would enter the existing Metcalf substation underground and transition above ground at a steel substation termination/riser structure. The new 500 kV AC termination/riser structures would be approximately 30 feet tall and would have a drilled pier foundation. The termination/riser structures would transition the cable to a substation dead-end structure that would be approximately 120 feet tall and would have a drilled pier foundation. **Figure 3-11** provides details and typical metrics for the proposed 500 kV AC termination/riser structures.

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

**Transmission Line Bird Protection Design**

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

### 3.3.4.3 Access Roads

**Transmission Lines**

The proposed transmission lines would be underground, almost exclusively within existing roads. Construction and operation access to the transmission lines would be via the roads where the transmission lines are located.

**Skyline Terminal**

The existing and primary access to the proposed Skyline terminal for both construction and O&M would be from Santa Teresa Street and Ryland Street. A new terminal access road would be constructed that connects the existing paved roadway to the terminal facility's perimeter wall (refer to **Figure 3-7**). Santa Teresa Street and Ryland Street are both existing two-lane, approximately 30-foot wide, public paved roads providing access to the proposed Skyline terminal from Coleman Avenue. The Proposed Project includes improvements to upgrade the paved access road apron to provide an adequate entrance from Ryland Street to the terminal site as required. The new terminal access road at the proposed Skyline terminal site would be approximately 20 feet wide and approximately 150 feet long.

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

**Grove Terminal**

The existing and primary access to the proposed Grove terminal for both construction and O&M would be from Monterey Road. The existing access road to the terminal would be upgraded to support construction traffic from Monterey Road to the terminal facility's perimeter wall (refer to **Figure 3-7**). The existing access road at the proposed Grove terminal site would be upgraded for approximately 300 feet in length to be approximately 20 feet wide. At this location, Monterey Road is an existing four-lane, approximately 80-foot wide, public paved, divided road. For access to the proposed Grove terminal from Monterey Road, the Proposed Project includes the installation of a paved access road apron where the new access road approaches Monterey Road as required.

A new terminal access road would be constructed that connects Monterey Road with the terminal facility's perimeter wall and gate (refer to **Figure 3-7**). The new access road at the proposed Grove terminal site would be approximately 20 feet wide and approximately 300 feet long. At this location, Monterey Road is an existing four-lane, approximately 80-foot wide, public paved, divided road. For access to the proposed Grove terminal from Monterey Road, the Proposed

Project includes the installation of a paved access road apron where the new access road approaches Monterey Road as required.

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

### 3.3.5 OTHER POTENTIALLY REQUIRED FACILITIES

**PG&E Substation Upgrades**

***San Jose B Substation***

At the existing San Jose B substation, existing facilities would be rebuilt and expanded to allow the interconnection of the proposed Skyline to San Jose B 115 kV station tie line. Because the existing San Jose B substation presently has a straight bus configuration with four existing transmission line connections and lacks space for the proposed Skyline to San Jose B 115 kV station tie line, the existing substation would be rebuilt in order to create a bay position for the proposed Skyline to San Jose B 115 kV station tie line. Much of the existing air insulated 115 kV switchyard at the existing PG&E San Jose B substation would be removed, and PG&E would convert the existing San Jose B substation to a GIS BAAH configuration. The new GIS configuration would include five BAAH bays. The GIS enclosure is expected to be approximately 150 feet long by 85 feet wide by 31 feet tall. The new GIS equipment and controls required to monitor and protect the electrical equipment would be located within a new enclosure that would be located on the proposed Skyline terminal site (refer to **Figure 3-7**). Other work would involve installation of typical substation equipment, including structural yard steel, bus work/fittings, conduits, and grounding as well as underground 115 kV cable. The existing and new fence would be modified or installed per PG&E's substation standards and security requirements. Additional stormwater runoff measures may be required. The SPCC pond would need to be upgraded to account for the San Jose B substation expansion. New facilities for the expansion of the San Jose B substation would range in height up to approximately 95 feet above grade. New substation facilities would generally be gray and non-reflective. New lighting would be installed per standard and would be determined during detailed design. Outdoor lighting additions would be in line with IEEE C2 to provide two foot-candle intensity, and LED lighting would be used to meet latest efficiency recommendations in California Title 24.

The approximate substation rebuild area and proposed Skyline to San Jose B 115 kV station tie line to the proposed Skyline terminal are shown in **Figure 3-7**. Modifications at the existing San Jose B substation would also be made to bus work, disconnect switches, circuit breakers, steel support structures, and communication systems. While this work is not part of LS Power's Proposed Project, it is considered a connected project for purposes of CEQA compliance.

LS Power's scope for the proposed Skyline to San Jose B 115 kV station tie line between the proposed Skyline terminal and the existing San Jose B substation is proposed to stop at a H-frame (dead-end) or similar termination structure located adjacent to the new San Jose B GIS enclosure (refer to **Figure 3-7**).

### *Metcalf Substation*

The existing Metcalf substation facilities would be modified to allow the interconnection of the new Metcalf to Grove 500 kV transmission line. LS Power's scope for the new Metcalf to Grove 500 kV transmission line connection between the proposed Grove terminal and the existing Metcalf substation is proposed to stop at a dead-end structure located within the northwestern boundary of the existing Metcalf substation property line (refer to **Figure 3-4**). PG&E would be responsible for bringing the new circuit from that point to the new bay within the existing Metcalf substation. The required work at the substation would include installation of a new 500 kV bay with two new 500 kV circuit breakers, five new 500 kV breaker disconnect switches, one new 500 kV line disconnect switch, three new 500 kV line capacitor coupled voltage transformers (CCVTs), two new dead-end structures, and typical substation equipment, including bus work, conduits, grounding, and communication systems. Additionally, the existing substation security wall would be required to be extended/relocated approximately 100 feet to the north. Additional stormwater runoff measures may be required. New facilities for the expansion of the Metcalf substation would range in height up to approximately 105 feet above grade. New substation facilities would generally be gray and non-reflective. New lighting would be installed per standard and would be determined during detailed design. Outdoor lighting additions would be in line with IEEE C2 to provide two foot-candle intensity, and LED lighting would be used to meet latest efficiency recommendations in California Title 24. The modification area for the existing Metcalf substation is shown in **Figure 3-4**.

### PG&E Water Source Upgrades

The modification of the Metcalf substation would be in conflict with (and require removal of) the well water system and related components and fire water system (including a 47,000-gallon storage tank and related system components) serving the existing substation and the adjacent PG&E General Contractor Yard. The system would be replaced by a new connection to the Great Oaks Water District's water system, which would involve trenching and related construction activities to extend a 10-inch water line to the Metcalf substation from the closest connection point (a 16-inch water main near the corner of Metcalf Road and Malech Road). The water line would include approximately 1,400 feet of trenching and a 240-foot HDD under U.S. Route 101. The preliminary water pipeline route is depicted on **Figure 3-4**.

### Road and Trail Improvements

The Proposed Project would include a new road alignment along Coyote Ranch Road that would consist of base rock topped with pavement. Coyote Ranch Road would be realigned to straighten and minimize roadway bends on Santa Clara County Parks land. The new alignment of Coyote Ranch Road would be approximately 20 feet wide, excluding the shoulder, and would remove two 90-degree curves and a portion of the existing roadway as shown in **Figure 3-4**. The new road alignment would be approximately 850 feet long, which would result in a disturbance area of 0.36 acre. A new turnaround would be installed at the entrance of Coyote Ranch on Santa Clara County Parks land. These road improvements would allow for more effective ingress and egress of fire apparatuses to Coyote Ranch. In addition to the realignment of Coyote Ranch Road, Coyote Creek Trail would be realigned out of the Coyote Creek riparian area on Santa Clara County Parks land and alongside Coyote Ranch Road as shown in **Figure 3-4.** The Coyote Creek Trail alignment would be approximately 12 feet wide and 2,300 feet long, resulting in a disturbance area of approximately 0.65 acre. This alignment would be graded flat and consist of base rock topped with pavement.

### Utility Relocations

Beyond PG&E utility relocations discussed in **Section 3.3.3.3**, *Existing Transmission and Distribution Lines*, excavation and installation of the concrete-encased duct bank and associated splice vaults would require the relocation of certain third-party utilities in areas of conflict. Utilities would be avoided where practicable, but some utilities would require relocation. Utilities that would require relocation may include sanitary sewer, stormwater, gas, water, electric, and telecommunication. However, the exact utilities and relocation alignments are not known at this time. Utility relocations are further discussed in **Section 3.5.4.2**, *Utilities*.

### Aviation Lighting and Marking

The tallest structures within the Skyline terminal site would be the approximately 100-foot-tall lightning shielding masts. A 100-foot-tall structure would still be below the maximum FAA authorized aboveground structure height limit for the Skyline terminal site (refer to **Section 5.9**, *Hazards, Hazardous Materials, and Public Safety* for additional information). Therefore, aviation lighting or markings are not anticipated for the Proposed Project.

## 3.3.6 FUTURE EXPANSIONS AND EQUIPMENT LIFESPANS

There are currently no definitive plans for future expansion of the Proposed Project. CAISO's Appendix G: Description and Functional Specifications for Transmission Facilities Eligible for Competitive Solicitation in the Board Approved 2021-2022 Transmission Plan ("Functional Specification") conceptualizes certain future transmission upgrades that may follow the Proposed Project (CAISO, 2022). Specifically, the Functional Specification describes an ultimate HVDC development plan which would create a new HVDC link between the Proposed Project's Grove terminal and a new HVDC terminal currently under development in the vicinity of the Newark 230/115 kV substation (part of the Power the South Bay Project). Additionally, the ultimate HVDC development plan includes a new 230 kV AC transmission line in northern San José between the Power the South Bay Project's HVDC terminal in close proximity to the San José-Santa Clara Regional Wastewater Facility and the existing Los Esteros 230 kV substation. At this time, CAISO has not definitively committed to approving the conceptualized ultimate HVDC development plan nor indicated the timing for its approval or the project's execution. If the CAISO Board were to approve such a plan in a future transmission planning process and LS Power were to be selected as the approved project sponsor, LS Power would seek CEQA review and a Certificate of Public Convenience and Necessity (CPCN) for the ultimate HVDC development plan project independent of this proceeding.

However, the Functional Specification provides that the Proposed Project should satisfy certain requirements to facilitate the ultimate HVDC development plan. These requirements would include providing adequate space at the proposed Grove terminal site for the ultimate HVDC development plan, as well as ensuring the proposed Grove terminal can be made to operate in a multi-terminal configuration. As presented herein, the Proposed Project satisfies these requirements.

The Proposed Project would resolve several reliability concerns, including multiple near-term and long-term overloads in the San José 115 kV transmission system. Additionally, the Proposed Project would provide voltage support to the existing PG&E transmission system and could potentially obviate additional voltage support upgrades elsewhere. The expected usable life of

the proposed Grove and Skyline terminals is expected to exceed 40 years, and the expected life of the proposed transmission lines is expected to exceed 50 years.

### 3.3.7 BELOWGROUND CONDUCTOR/CABLE INSTALLATIONS

The Proposed Project would include construction of a new underground Grove to Skyline 320 kV DC transmission line that would include two 2500 $mm^2$ copper 320 kV single core XLPE cables consisting of a copper conductor, conductor binder and screen, XLPE insulation, insulation screen, water barrier, metallic sheath, and an outer jacket. The Proposed Project would also include construction of a new underground Metcalf to Grove 500 kV transmission line, which would include three 2500 $mm^2$ copper 500 kV single core XLPE cables, also consisting of a copper conductor, conductor binder and screen, XLPE insulation, insulation screen, water barrier, metallic sheath, and an outer jacket.

The minimum depth for the top of the underground transmission line duct bank would be approximately three feet, with the top of the duct bank typically varying between approximately three to 10 feet beneath the surface (refer to **Figure 3-9**). Splice vaults generally would be installed along the underground transmission line alignment approximately every 1,500 to 3,000 feet to facilitate installation of the underground cables and would extend approximately 10 feet deep (refer to **Figure 3-10**). The new Grove to Skyline 320 kV DC underground transmission line would require approximately 40 vaults, and the new underground Metcalf to Grove 500 kV transmission line would require approximately five vaults.

Once the duct bank conduit is installed, the trench would be backfilled around the conduits with flowable thermal concrete to form the duct bank encasement. Additional fluidized backfill would be utilized to fill most of the remainder of the trench. When located within roads, a road base backfill, flowable backfill, or slurry concrete cap would be installed, and the road surface would be restored in compliance with local requirements.

### 3.3.8 ELECTRIC SUBSTATIONS AND SWITCHING STATIONS

As described above, the Proposed Project includes the construction of two new HVDC terminals (Skyline and Grove) as well as modifications to two existing PG&E substations (San Jose B and Metcalf). The two new HVDC terminals would each contain three single-phase converter transformers with one on-site spare and two distribution transformers, as well as GIS equipment. The Grove terminal transformers would be 500/320 kV transformers while the Skyline terminal transformers would be 320/115 kV. Both HVDC terminal facilities would include an HVDC control and equipment enclosure as well as a GIS control and equipment enclosure. Protective relaying and control equipment as well as supervisory control and data acquisition (SCADA) equipment would be located in the equipment enclosure. Additionally, each HVDC control and equipment enclosure would have space allocated for spare parts and maintenance tool storage on-site. Larger spare parts would be stored within the terminal site.

Both HVDC terminals would include $SF_6$ gas-insulated circuit breakers, associated bus, disconnect switches, current transformers, voltage transformers, and other associated GIS equipment. PG&E's rebuilt San Jose B substation would include 14 115 kV clean air gas-insulated circuit breakers, associated bus, disconnect switches, current transformers, voltage transformers, and other associated GIS equipment. The HVDC facilities would be remotely operated with no permanent workforce on-site. Additional O&M procedures are described in **Section 3.8**, *Operation and Maintenance* below.

### 3.3.9 TELECOMMUNICATION LINES

The Proposed Project includes telecommunications infrastructure that would connect the new HVDC terminals to each other, connect the HVDC terminals to the existing PG&E substations, and connect each HVDC terminal to local existing third-party internet providers. It is anticipated that these telecommunication lines would all be underground, and no overhead lines or wireless connections (e.g., antennas) are anticipated. Underground telecommunication paths would be installed along the proposed transmission lines to provide redundant communications. Additional telecommunication connections would be made at each HVDC terminal location, connecting to existing third-party internet service providers. Each telecommunication path would consist of fiber optic cables.

The two telecommunication lines that are planned to be installed in the transmission line duct bank would typically be housed in two two-inch diameter conduits, which would be included in the trench duct bank (refer to **Figure 3-9**). Typical depth of the telecommunications lines is three to four feet below ground surface. For the telecommunication lines in the transmission line duct bank, fiber splices would be contained within separate underground fiber splice vaults or at the substation termination structures, and fiber splices would not be located within the proposed transmission line splice vaults. The Grove to Skyline telecommunication lines would be approximately 13 miles long while the Metcalf to Grove telecommunication lines would be approximately 1.2 miles long.

The local third-party internet connections for the terminal sites are also anticipated to be located underground and connect to existing telecommunication lines located adjacent to the terminal sites. For the proposed Grove terminal, it is anticipated that the third-party internet provider would connect along Monterey Road, and the new telecommunication lines would be placed underground to the northeast for approximately 300 feet until connecting to the terminal facility. For the proposed Skyline terminal, it is anticipated that the third-party internet provider would connect along Santa Teresa Street or Ryland Street, and the new telecommunication lines would be placed underground to the south for approximately 150 feet until connecting with the terminal facility.

## 3.4 LAND OWNERSHIP, RIGHTS-OF-WAY, AND EASEMENTS

Land entitlement issues are not part of this regulatory proceeding, in which the CPUC is considering whether to grant or deny LS Power's application for a CPCN to construct new electrical facilities. Rather, any land rights issues would be resolved in subsequent negotiations and/or condemnation proceedings in the proper jurisdiction, following the decision by the CPUC on LS Power's application (see, for example, Jefferson-Martin 230 kV Transmission Project, A.02-04-043, D.04-08-046, p. 85).

### 3.4.1 LAND OWNERSHIP

#### 3.4.1.1 LS Power Facilities

The parcels associated with the proposed Skyline terminal site (APNs 259-23-020 and 259-23-024) are currently owned by LS Power. The parcels associated with the proposed Grove terminal site (APNs 725-14-008, 725-14-009, 725-14-014, and 725-14-015) are currently under an exclusive option to purchase by LS Power. These parcels of land are adequate to accommodate the HVDC terminal construction activities, including site grading, fencing, staging area,

equipment, internal circulation, and other operational considerations (see **Section 3.4.3**, *New or Modified Rights-of Way or Easements*).

LS Power would have to negotiate an easement with two private landowners for the transmission lines: Westbury Downtown, LLC and PG&E. LS Power would also obtain real estate rights from municipal, state, and regional agency-owned lands for the transmission lines, including the following:

- City of San José;
- County of Santa Clara; and
- Santa Clara Valley Water District (SCVWD or "Valley Water").

Finally, LS Power would secure crossing and encroachment permits, authorizations, and agreements for existing linear infrastructure crossed by the Proposed Project.

#### 3.4.1.2 PG&E Facilities

PG&E owns the parcels the existing San Jose B and Metcalf substations are located on. However, PG&E and LS Power would need to negotiate the transfer of a portion of the Skyline terminal parcel to allow for the expansion of the San Jose B substation.

### 3.4.2 EXISTING RIGHTS-OF-WAY OR EASEMENTS

#### 3.4.2.1 LS Power Facilities

LS Power does not have any existing ROWs or easements within the Proposed Project area.

#### 3.4.2.2 PG&E Facilities

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

### 3.4.3 NEW OR MODIFIED RIGHTS-OF-WAY OR EASEMENTS

#### 3.4.3.1 LS Power Facilities

The proposed HVDC terminals would be located on land owned by LS Power and would not require a new or modified ROW, easement, or other land use agreement. However, as discussed further in **Section 5.9**, the proposed Skyline terminal site is located on an identified Cleanup Program Site and currently has a Covenant and Environmental Restriction on Property ("Covenant"). The Covenant further identifies that the implementation of the approved Site Management Plan (SMP) would successfully mitigate potential risks from soil exposure during construction and long-term operations. Additionally, the proposed Skyline terminal site has a number of encumbrances on the property, including, but not limited to, California Department of Transportation (DOT) roadway easements, SCVWD water management and/or storm water drainage easements, telecommunication easements, PG&E easements, and a railroad easement. None of the existing encumbrances would prohibit the development of the proposed Skyline terminal.

The proposed underground Grove to Skyline 320 kV DC transmission line and the proposed underground Metcalf to Grove 500 kV transmission line would require new ROW easements and/or franchise agreements, mainly from local jurisdictional agencies as both transmission lines are located mostly within existing public roadways. The proposed Grove to Skyline 320 kV DC transmission line would require approximately 13 miles of new ROW/easement/franchise agreements, and the proposed Metcalf to Grove 500 kV transmission line would require approximately 1.2 miles of new ROW/easement/franchise agreements. The proposed Skyline to San Jose B 115 kV overhead alignment would be within the proposed Skyline terminal parcel. LS Power would retain any necessary land rights required for the Skyline to San Jose B 115 kV overhead alignment during the transfer of a portion of the Skyline terminal parcel to PG&E.

The new permanent ROW for the proposed Grove to Skyline 320 kV DC and Metcalf to Grove 500 kV transmission lines would vary in width but would generally require an approximately three-foot-wide ROW. The ROW would be expanded at vault locations to encompass the entire splice vault (i.e., up to approximately 10 feet wide). The specific width of necessary easements, ROW, or franchise agreements along the transmission line alignments would be refined during the final engineering process. The Proposed Project is anticipated to require a total of approximately seven acres of new ROW, easement, or franchise agreements.

A portion of the new permanent easement/ROWs would be acquired by LS Power through negotiations with private landowners and PG&E. New permanent ROWs or licenses would also be acquired from each applicable public agency through that agency's designated process. LS Power would negotiate required franchise agreements with the City of San José and the County of Santa Clara and required easement with the County of Santa Clara. The total number of land rights to be acquired would be finalized during final engineering. LS Power would also have the power of eminent domain to acquire any necessary land rights for construction of the Proposed Project.

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

#### 3.4.3.2 PG&E Facilities

PG&E may require new or modified ROWs or easements to relocate its existing distributions lines and install a new water line near the Metcalf substation. Whether new rights are necessary would be determined when detailed design has progressed.

### 3.4.4 TEMPORARY RIGHTS-OF-WAY OR EASEMENTS

Temporary easements would be required for the Proposed Project's construction staging areas. Additionally, temporary rights necessary for the installation of the underground transmission lines would be included in the necessary ROW easement/franchise agreements.

LS Power anticipates needing to negotiate a temporary easement with one private landowner, Westbury Park, LLC.

## 3.5 CONSTRUCTION

This section includes an overview of the typical methods that would be used for construction of the Proposed Project. Specifically, this section describes typical construction methods for the two

proposed HVDC terminals, new transmission lines, existing substation upgrades, construction equipment, and temporary work areas.

### 3.5.1 CONSTRUCTION ACCESS

#### 3.5.1.1 Existing Access Roads

**HVDC Terminal Site Access**

The existing and primary access to the proposed Skyline terminal site for both construction and O&M would be from Santa Teresa Street and Ryland Street. Santa Teresa Street and Ryland Street are both existing two-lane, approximately 30-foot-wide, public paved roads providing access to the site via Coleman Avenue from the SR-87 interchange with Taylor Street. No improvements are expected to be required along Santa Teresa Street and Ryland Street. However, upgrading the paved access road apron to provide an adequate entrance from Ryland Street to the terminal site may be required.

The existing and primary access to the proposed Grove terminal site for both construction and O&M would be from Monterey Road. The existing access road to the terminal would be upgraded to support construction traffic from Monterey Road to the terminal facility's perimeter wall (refer to **Figure 3-7**). The existing access road at the proposed Grove terminal site would be upgraded for approximately 300 feet in length to be approximately 20 feet wide, resulting in approximately 0.14 acre of disturbance. Monterey Road is an existing four-lane, approximately 80-foot-wide, public paved divided road providing access to the site via Bailey Avenue from U.S. Route 101. For access to the proposed Grove terminal from Monterey Road, the Proposed Project would include improvements to install a paved access road apron where the new access road approaches Monterey Road as required.

**Transmission Line Access**

The Proposed Project's underground transmission lines are sited almost exclusively within existing public roadways. Therefore, the roads where the Proposed Project is located, and adjoining roads would be utilized for construction and operations access. Refer to **Figure 3-4**, as well as **Section 5.17**, *Transportation*, for listings and descriptions of the roads that would be utilized for transmission line access.

**Existing Substation Site Access**

Access to the existing PG&E San Jose B substation is from Coleman Avenue and Santa Teresa Street, and access to the existing Metcalf substation, including the substation modification area, is from Metcalf Road and Coyote Ranch Road.

**Incidental Road Damage**

No incidental road damage is anticipated to be caused by Proposed Project activities. As discussed above, the Proposed Project would be primarily accessed through paved public roadways. LS Power would work with the appropriate DOT or applicable agency to identify incidental road damage caused by construction and an appropriate way to restore roads damaged by the Proposed Project to preconstruction conditions. LS Power would also comply with all permit conditions (e.g., encroachment permits), as required, related to roadway usage and repair.

### 3.5.1.2 New Access Roads

The Proposed Project includes two new permanent access roads, which would provide access to each HVDC terminal. The new permanent access road at the proposed Skyline terminal site would be approximately 20 feet wide and approximately 150 feet long. The new permanent access road at the proposed Grove terminal site would be approximately 20 feet wide and approximately 300 feet long. Construction of these access roads would include grading and rocking or paving per the final Proposed Project design. Permanent gates would be installed at both HVDC terminal driveways along the perimeter wall. The HVDC terminals would not include dedicated permanent internal access roads. Rather, the entire terminal facility would be capped with crushed rock to provide access within and around the facility footprint. The new access roads are depicted in **Figures 3-4** and **3-7**. **Table 3-1**, *New Access Roads* provides additional access road details.

**Table 3-1: New Access Roads**

| Name of Road | Type of Road/ Improvement | Approximate Dimensions | Approximate Disturbance Area |
|---|---|---|---|
| Skyline Terminal Access Road | New access road. Pavement, gravel, or base rock would be used for all-weather, dust-resistant surfacing. | 20 feet wide/150 feet long | 0.07 acre (3,000 $ft^2$) |
| Grove Terminal Access Road | New access road. Graded flat. Pavement, gravel, or base rock would be used for all-weather, dust-resistant surfacing. | 20 feet wide/300 feet long | 0.14 acre (6,000 $ft^2$) |

### 3.5.1.3 Overland Access Routes

No overland access routes would be used during construction or O&M of the Proposed Project.

### 3.5.1.4 Watercourse Crossings

The proposed HVDC terminals would be located on existing agricultural and vacant land, and no watercourses have been identified. The proposed Grove to Skyline 320 kV DC transmission line would be sited within existing road ROWs and would cross the inactive Coyote Alamitos Canal and a concrete culvert (Fisher Creek) that feeds into Coyote Creek (refer to **Figure 3-4**). The Coyote Alamitos Canal would be crossed using conventional open trenching techniques. If conventional trenching over or under the culvert is not feasible, construction would use horizontal boring (jack-and-bore) or HDD trenchless techniques as required. The Grove to Skyline 320 kV DC transmission line would be installed under the Fisher Creek culvert using HDD construction (see **Section 3.5.6.2**, *Trenchless Techniques* and **Figure 3-13** for additional details concerning HDD construction).

The proposed Skyline to San Jose B 115 kV station tie line would be a short connection to PG&E's existing San Jose B substation and would not cross any watercourses. The proposed Metcalf to Grove 500 kV transmission line would cross Coyote Creek and would require an HDD (refer to **Figure 3-4**). The Metcalf to Grove 500 kV transmission line would be installed under Coyote Creek using HDD construction (see **Section 3.5.6.2** and **Figure 3-13** for additional details

concerning HDD construction). Additionally, the Metcalf to Grove 500 kV transmission line would be installed under SCVWD's existing Coyote Canal, which crosses Coyote Ranch Road using open trenching techniques. If conventional trenching over or under the culvert is not feasible, construction would use horizontal boring (jack-and-bore) or HDD trenchless techniques as required.

Construction would be coordinated to minimize impacts to riparian areas. Additionally, construction timing would be closely coordinated with SCVWD (who manages the creek and owns some of the land in and alongside Coyote Creek in the Proposed Project area) so that all work is completed in a manner that would not adversely impact the overall function of the creek during the flow release from the Anderson Dam as well as during the rainy season.

#### 3.5.1.5 Helicopter Access

Helicopters would not be used for construction or O&M of the Proposed Project.

### 3.5.2 STAGING AREAS

#### 3.5.2.1 Staging Area Locations

The Proposed Project includes 12 potential temporary construction staging areas located along the Proposed Project alignment, resulting in a total area of approximately 76.4 acres. This includes proposed staging that would occur at each new HVDC terminal site. LS Power anticipates utilizing approximately four to six staging areas during construction, including the terminal sites. The 12 staging area sites have been included because site availability during the construction window years in the future is uncertain at this stage. In addition, limited construction staging and equipment parking may occur on City streets along the underground transmission line alignment, where approved by the local agency (e.g., City of San José). This is a common practice during construction projects within or along public roadways. The proposed potential staging area locations are summarized in **Table 3-2**, *Construction Staging Areas*.

**Table 3-2: Construction Staging Areas**

| No. | Location | Approximate Size (Acres) | Access[1] |
|---|---|---|---|
| 1 | Grove Terminal | 6.63 | Monterey Road |
| 2 | Metcalf Substation | 7.8 | Coyote Ranch Road |
| 3 | Metcalf Substation | 9.3 | Coyote Ranch Road |
| 4 | Bernal Road and SR-85 | 4.0 | Bernal Road or the SR-85 entrance ramp |
| 5 | 4310 Monterey Road | 2.2 | Monterey Road |
| 6 | Santa Clara County Fairgrounds | 12.6 | Monterey Road |
| 7 | 1675 Monterey Road | 6.1 | Monterey Road |
| 8 | Alma Avenue | 3.1 | Alma Avenue |
| 9 | 185 West Humboldt Street | 5.1 | Keyes Street |
| 10 | 217 Delmas Avenue | 2.1 | Delmas Avenue, San Carlos Street, Sonoma Street, or Park Avenue |
| 11 | 323 Terraine Street | 1.6 | Terraine Street or Bassett Street |
| 12 | Skyline Terminal | 2.9 | Ryland Street |
| | **TOTAL** | **63.3** | |
| Notes: | | | |

| Table 3-2: Construction Staging Areas |
|---|
| [1] Access from the potential construction staging areas to the Proposed Project alignment and terminals would be on existing public roadways as shown on **Figure 3-4**. |

#### 3.5.2.2 Staging Area Preparation

Preparation of the staging areas would involve clearing, grubbing, and limited grading, as needed, to establish a level working surface. Staging areas may be used as a refueling area for vehicles and construction equipment; as an equipment wash station; for assemblage; for storage of material and equipment, storage containers, construction trailers, and portable restrooms; and for parking and lighting. Transmission line and HVDC terminal equipment required for the Proposed Project, such as conduit, cables, HVDC equipment, GIS equipment, riser structures, bus, cable trench, rebar, etc., would be received and temporarily stored at a staging area prior to installation.

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

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

### 3.5.3 CONSTRUCTION WORK AREAS

All Proposed Project components would require construction work areas, and some Proposed Project components would require permanent work areas for the life of the Proposed Project. All construction work areas (i.e., limits of construction) are depicted in **Figure 3-4**. Each component of the Proposed Project's construction (temporary) and O&M (permanent) work is described below and summarized in **Table 3-3**, *Work Area Disturbance Summary*. A detailed description of the work to be performed in the identified work areas is provided in **Section 3.5.4**, **Section 3.5.5**, *Transmission Line Construction (Aboveground),* **Section 3.5.6**, *Transmission Line Construction (Belowground), and* **Section 3.5.7**, *Substations, Switching Stations, and Gas Compressor Stations*.

#### 3.5.3.1 Construction Work Areas

**General HVDC Terminal Site Staging**

It is anticipated that all major electrical and terminal equipment for both the proposed Grove terminal and proposed Skyline terminal, such as the converter transformers, would be delivered to the terminal site and placed directly on previously constructed foundations. Other terminal equipment, such as HVDC equipment, GIS equipment, riser structures, bus, conduit, cable trench, rebar, etc., would be received and temporarily stored at a staging area prior to installation. All construction equipment and vehicles associated with HVDC terminal construction would be parked within a staging area while inactive and at the completion of each workday, where practical.

### Skyline Terminal

As discussed in **Section 3.5.2**, *Staging Areas*, the Proposed Project would utilize the proposed Skyline terminal site for construction staging. The construction of the terminal would require grading, fill, and the installation of chain-link fencing that would extend beyond the proposed permanent impact area and around the outer limits of the staging area (property). In addition, work areas would be needed around the perimeter of the proposed Skyline terminal facility to facilitate construction and access. The permanent footprint of the proposed Skyline terminal is approximately 4.5 acres, and the total permanent impact area is 5.1 acres. A total of approximately 8.0 acres of the site would be temporarily impacted by construction staging and work area utilized for construction of the HVDC terminal and adjacent San Jose B substation expansion (refer to **Figure 3-7**).

### Grove Terminal

As discussed in **Section 3.5.2**, the Proposed Project would utilize the proposed Grove terminal site for construction staging. The construction of the terminal would require grading, fill, and the installation of chain-link fencing that would extend beyond the proposed permanent impact area and around the outer limits of the staging area. In addition, work areas would be needed around the perimeter of the proposed Grove terminal facility to facilitate construction and access. The permanent footprint of the proposed Grove terminal is approximately 6.3 acres, and the total permanent impact area would be approximately 7.4 acres. The remaining portions of the site would be temporarily impacted by construction staging and work areas utilized for construction of the HVDC terminal. Note that approximately 0.8 acre of the proposed Grove terminal site would remain undisturbed during construction to provide screening along Monterey Road (refer to **Figure 3-7**).

### Transmission Lines

The Proposed Project's transmission line installation work areas would be almost exclusively located either in existing roadways or within proposed HVDC terminal sites (refer to **Figures 3-4** and **3-7**). Work areas for the portions of transmission lines within proposed terminal sites would be considered part of the terminal work areas. The proposed underground transmission lines would be installed primarily within public roads. The exact location of the underground transmission line alignment, including splice vaults, HDD pits, and jack-and-bore pits, are not known at this time; therefore, construction work area estimates include the entire area of the existing road ROW where the transmission lines would be installed. Actual transmission line work areas would be much smaller than the estimates included herein. Typical work areas for transmission line components include, but are not limited to, the following:

- Jack-and-bore sending and receiving pits are typically approximately 15 feet by 50 feet.
- Jack-and-bore temporary workspace in line or adjacent to the pits is typically approximately 30 feet by 80 feet.
- HDD sending and receiving pits are typically approximately six feet by 20 feet.
- HDD pull back area for staging and fusion would typically begin at the receiving pit and be longer than the proposed HDD's entire length.
- Pulling and splicing sites can vary in size depending on site-specific conditions and requirements but are typically approximately 30 feet wide and up to 200 feet long.

During underground construction, typically two lanes of traffic would be shut down where construction would be taking place. This area would represent the temporary construction work area and would typically be 20 to 30 feet in width depending on site-specific road conditions and City-approved traffic control plans (TCPs). All additional underground construction activities would occur within this area.

Following installation of the underground transmission line, the road surface would be restored to the original condition or as otherwise in compliance with local requirements. All underground transmission not installed in roads (e.g., parking lots or sidewalks) would be restored to the original condition.

**PG&E Interconnections and Substation Modifications**

The proposed substation modifications at PG&E's existing San Jose B and Metcalf substations would be completed within the existing substation sites or within the Proposed Project HVDC terminal sites. The entire 2.1-acre San Jose B substation site would be used as a temporary work area and would be retained as a permanent work area for the expanded and rebuilt San Jose B substation. Construction and operation of the existing San Jose B substation expansion and upgrade would also utilize approximately one acre of the proposed Skyline terminal property (refer to **Figure 3-7**). It is anticipated that the existing San Jose B substation site and proposed Skyline terminal site would be used as construction staging for the San Jose B substation construction.

The existing Metcalf substation modifications would be completed in the substation modification area, located immediately north of the existing 500 kV substation bay (refer to **Figure 3-4**). The existing Metcalf substation modification area is approximately 2.7 acres and would represent a permanent impact. It is anticipated that Staging Area 2 (refer to **Figure 3-4**) would be utilized to support the existing Metcalf substation modifications. PG&E may also utilize areas within or adjacent to the existing Metcalf substation modification area (Staging Area 3, refer to **Figures 3-4**) for construction staging, as needed.

### 3.5.3.2 Work Area Disturbance

Implementation of the Proposed Project would result in both temporary and permanent work area disturbance. **Table 3-3** provides estimated work area totals (including both temporary and permanent footprints) for each Proposed Project component. There would be no permanent disturbance areas associated with the HDD pits and jack-and-bore pits.

**Table 3-3: Work Area Disturbance Summary**

| Work Area | Temporary or Permanent Disturbance | Disturbance Area (approximate metrics) |
|---|---|---|
| Staging Areas[1] | Temporary | 63.3 acres[2] |
| Skyline Terminal | Permanent | 5.1 acres |
| Grove Terminal | Permanent | 7.4 acres |
| Metcalf Substation Modifications | Permanent | 2.7 acres |
| San Jose B Substation Rebuild & Expansion | Permanent | 2.8 acres |

| Table 3-3: Work Area Disturbance Summary | | |
|---|---|---|
| **Work Area** | **Temporary or Permanent Disturbance** | **Disturbance Area (approximate metrics)** |
| PG&E Water Line | Temporary | 0.5 acre |
| Relocated Coyote Ranch Road and Coyote Creek Trail | Permanent | 1.1 acres |
| Transmission Lines[3] | Temporary | 180 acres |
| Grove to Skyline 320 kV DC Transmission Line[4] | Permanent | 1,000 sq. ft. |
| Metcalf to Grove 500 kV Transmission Line[4] | Permanent | 100 sq. ft. |
| Total Temporary Work Area Disturbance[5] | Temporary | 243.8 acres |
| Total Permanent Work Area Disturbance | Permanent | 19.6 acres |

Notes:
[1] Includes temporary impact areas at Skyline and Grove terminals that would be used for construction staging.
[2] Total area of 12 potential staging areas is included herein. However, the Proposed Project would only utilize approximately two to four staging areas, not including the terminal and existing substation sites. Therefore, the actual total disturbance area for staging areas would be substantially less than the total area listed herein.
[3] Transmission line work areas that occur within terminal site boundaries are accounted for within the terminal site work area totals. Transmission line acreage includes temporary acreage for splice vaults, HDD pits, and jack-and-bore pits.
[4] The only permanent surface disturbances for the transmission lines are the vault manhole covers.
[5] While permanent work areas, such as the HVDC terminal and substation expansion and modification areas, would also be used during construction, these areas are not included in the temporary impact areas. Each impact area is only counted once, as either permanent or temporary.

In addition, **Figures 3-4** and **3-7** identify the temporary and permanent disturbance areas associated with the Proposed Project. In total, the Proposed Project would result in approximately 19.6 acres of permanent disturbance and approximately 243.8 acres of temporary disturbance to mainly previously disturbed land and paved roads.

#### 3.5.3.3 Temporary Power

LS Power plans to have connections to existing overhead or underground distribution lines near the Proposed Project 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 and both proposed HVDC terminal sites during construction. The use of temporary generators at the proposed terminals and staging areas would be a contingency if distribution power was not available in a timely manner prior to construction commencing. Temporary generators would be required during construction of the underground transmission lines. While the exact location of temporary distribution lines is unknown, impacts from the temporary power would typically occur within existing road ROWs and the staging area boundaries.

### 3.5.4 SITE PREPARATION

#### 3.5.4.1 Surveying and Staking

LS Power would survey and mark the proposed underground alignment at regular intervals and at all known underground facilities. LS Power would also clearly mark any sensitive biological,

cultural, paleontological, or hydrological resources, where appropriate, to restrict construction activities and equipment from entering these areas.

#### 3.5.4.2 Utilities

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

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

As previously mentioned in **Section 3.3.3**, *Existing Facilities*, there are approximately four wooden poles associated with a radial distribution line currently serving the proposed Grove terminal site that would need to be removed (refer to **Figure 3-4**). These wooden poles would generally be removed utilizing a line truck or similar equipment with an attached boom. A ground crew would hand excavate at the base of the wood pole, and hydraulic jacks would then be placed around the base of the pole, as necessary. Next, a boom would be attached to the pole, and the pole would then be jacked, lifted out, and placed within the work pad area or on a trailer. The wood poles would ultimately be transported to a PG&E facility for reuse or disposal.

#### 3.5.4.3 Vegetation Clearing

The proposed Grove terminal site would require clearing of approximately 13.6 acres of orchard trees. The proposed Skyline terminal would require clearing of two large, mature Peruvian pepper trees from the northwestern portion of the proposed Skyline terminal site. Vegetation removal would be completed utilizing mechanized removal equipment or by hand using chain saws. Vegetation removal would not occur outside of approved work areas. Approximately 0.8 acre of existing orchard trees along the Monterey Road frontage of the proposed Grove terminal site would be temporarily impacted and preserved as screening in place of new landscaping. Vegetation removal would also be required along the transmission line from the proposed Grove terminal to the Metcalf substation. Staging areas would also require vegetation removal, which is further discussed in **Section 5.4**, *Biological Resources.*

#### 3.5.4.4 Tree Trimming and Removal

The Proposed Project terminal sites would be cleared of trees and vegetation as discussed in the above section, specifically for the permanent facilities and to facilitate construction of those facilities. A total of approximately 2,850 trees would be removed (approximately two trees at the proposed Skyline terminal and 2,850 orchard trees at the proposed Grove terminal, with over half being planted since 2019) as a result of the Proposed Project. LS Power plans to leave approximately 150 trees along the frontage of Monterey Road at the proposed Grove terminal site. Tree removal would be completed utilizing mechanized removal equipment or by hand using chain saws. Tree removal would be limited as much as possible and would not occur outside of approved work areas.

Minimal tree clearing and trimming would be required to allow sufficient work area to implement the HDD under Coyote Creek for the proposed Metcalf to Grove 500 kV transmission line. Additionally, minimal tree clearing and trimming would be required to relocate Coyote Creek Trail alongside Coyote Ranch Road within Coyote Creek Parkway.

No tree trimming as required under General Order (GO) 95-D would be performed as part of the construction of the Proposed Project. Any tree removal or trimming performed under the Proposed Project would be conducted to facilitate the safe construction of the Proposed Project and to reduce the fire hazard associated with construction.

#### 3.5.4.5 Work Area Stabilization

Temporary work areas, terminal sites, and substation upgrade areas, including drainage and detention basins and access roads, would be stabilized during construction with BMPs that would be outlined in the Proposed Project's Stormwater Pollution Prevention Plan (SWPPP), as discussed in more detail in **Section 5.10**, *Hydrology and Water Quality*. The SWPPP BMPs would remain in place and would be maintained until new vegetation is established.

#### 3.5.4.6 Grading

Construction of the Proposed Project and associated improvements would require earthmoving activities at the two terminal sites. The proposed HVDC terminal sites were chosen with avoidance of major site grading in mind. Earthmoving activities would be required for the substation sites; however, this is unlikely to be considered a substantial grading activity. Subsurface rock during construction is not anticipated to be encountered. In addition, underground transmission line construction would result in cut and fill of soil and fill material (see additional details in **Section 3.5.6**).

Grading, excavation, and material removal quantities anticipated for the Proposed Project based on current information are summarized in **Table 3-4**, *Proposed Project Grading, Excavation, and Material Removal Summary*.

**Table 3-4: Proposed Project Grading, Excavation, and Material Removal Summary**

| Grading Description | Approximate Quantity (Cubic Yards [CY]) | Activity Description |
|---|---|---|
| Underground Transmission Cut | 100,000 | Installation of underground transmission duct banks, trenchless crossings, and splice vaults. |
| Underground Transmission Fill | 75,000 | Backfill in and around underground duct bank, trenchless crossings, and splice vaults. |
| Skyline Terminal Cut | 19,000 | Grading and excavations at Skyline terminal site. |
| Skyline Terminal Fill | 6,000 | Grading at Skyline terminal site. |
| Grove Terminal Cut | 24,000 | Grading and excavations at Grove terminal site. |
| Grove Terminal Fill | 7,000 | Grading at Grove terminal site. |

| Table 3-4: Proposed Project Grading, Excavation, and Material Removal Summary | | |
|---|---|---|
| **Grading Description** | **Approximate Quantity (Cubic Yards [CY])** | **Activity Description** |
| San Jose B Substation Expansion Cut | 5,000 | Grading and excavations at San Jose B substation as part of substation upgrades. |
| San Jose B Substation Expansion Fill | 1,000 | Grading at San Jose B substation as part of substation upgrades. |
| Metcalf Substation Fill | 5,000 | Raising Metcalf substation modification area as part of substation upgrades. |
| Total Cut | 148,000 | Total cut for Proposed Project. |
| Total Fill | 94,000 | Total fill for Proposed Project. |

As a result of the Proposed Project's grading and excavations (e.g., trenching, structure foundations, vaults), approximately 143,000 CY of material would be hauled off-site, stockpiled, or wasted. Approximately 5,000 CY of cut material is anticipated to be reused as fill for the terminal and substation grading work. The remaining approximately 89,000 CY of fill material would consist of concrete, flowable backfill, gravel, and clean fill. In addition to general earthmoving quantities, approximately four to eight inches of surface gravel would be required to be imported and installed within the proposed Skyline terminal site and the proposed Grove terminal site footprint. This material would be imported from a suitable, nearby aggregate source. All clean spoils excavated by the Proposed Project would be used on-site to balance cut and fill, as feasible. All spoils that are not useable and/or contaminated would be sent to a properly licensed landfill facility or other site for reuse. Recyclables would be taken to a licensed recycling facility, and all refuse would be taken to a landfill or another suitable facility.

Generally, grading and excavation at the terminals would be accomplished in a phased approach. Earthwork activities (e.g., grading, excavation) would be completed such that the site meets the Proposed Project's design specifications and matches proposed grades. During earthwork, soils and other surficial deposits that do not possess 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.

### 3.5.5 TRANSMISSION LINE CONSTRUCTION (ABOVEGROUND)

The Proposed Project would include a new aboveground proposed Skyline to San Jose B 115 kV station tie line connecting the new Skyline terminal to the rebuilt and expanded San Jose B substation. This transmission line would be a single span from the new substation dead-end structure within the proposed Skyline terminal to the new substation dead-end structure within the rebuilt and expanded San Jose B substation (refer to **Figure 3-7**). No other overhead transmission structures (e.g., monopole or steel lattice towers) would be included as part of the Proposed Project.

#### 3.5.5.1 Poles and Towers

With the exception of the proposed Skyline to San Jose B 115 kV station tie line, all other transmission lines would be underground. Standard overhead transmission structures would not

be used. An existing radial overhead distribution line located on the proposed Grove terminal site would need to be relocated. Approximately three wooden poles associated with this radial distribution line are located on the proposed Grove terminal site. These wooden poles would be removed utilizing a line truck or similar equipment with an attached boom. The entire wood pole (aboveground and belowground portions) would be removed.

The only overhead structures (i.e., structures supporting overhead conductor) included in the Proposed Project would be the termination/riser structures located at the terminal and substation sites. These structures would bring the underground conductor cables and transition them to overhead wires to connect to the substation or HVDC terminals. These termination/riser structures are further described in the associated subsections for substation facilities (**Section 3.3.4.1** and **Figure 3-11**).

**Structure Foundations**

The steel substation termination structures are proposed to be installed on concrete pier foundations. The foundations would be drilled using a truck or track mounted excavator or drill rig. Steel substation termination structure foundations would typically require an excavated hole approximately five to 10 feet in diameter and approximately 15 to 50 feet deep. Total excavated material per foundation would range from 15 to 130 CY of material and be hauled off-site. A commensurate volume of concrete would be utilized to form the foundation. Following excavation of the foundation, a reinforced steel cage and an anchor bolt cage would be placed in the hole and backfilled with concrete. Concrete forms would be placed at the surface to allow for the final desired pier height above ground level. Each completed foundation would be left to cure until required strength is met, which may take up to approximately 28 days. After the concrete cures, the steel substation termination structure would then be secured to the foundation using the anchor bolts embedded in the finished foundation.

If during drilling/excavation of a foundation hole, the excavation becomes unstable, the hole may be kept open by either 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.

**Structure Delivery and Assembly**

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

If a structure was to be aerially framed, a large crane would be used to lift the bottom section of the structure onto the anchor bolts protruding from the drilled pier foundation. When the bottom

section was secured, the subsequent section(s) of the structure would be similarly slipped together and hydraulically jacked or bolted as required.

#### 3.5.5.2 Aboveground Conductor and Underground Cable

**Aboveground Conductor**

All Proposed Project transmission lines would be underground, except for the new Skyline to San Jose B 115 kV station tie line. PG&E is determining the specifications for this transmission line conductor.

**Underground Conductor**

Underground conductor cables would be installed into the duct banks once the duct bank and splice vaults are installed (see additional information on duct bank construction in **Section 3.5.6** below). 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 3-14**, *Typical Underground Stringing Operation* depicts the underground conductor installation process.

Cable installation activities would occur at all splice vault locations and near the substation termination structures. Splice vaults would generally be installed along the transmission line alignment approximately every 1,500 to 3,000 feet to facilitate installation of the underground cables.

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

Splice vaults located within roads would be designed to accommodate all local and federal 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 (refer to **Section 3.5.6** below for additional information). During operation, the vaults would provide access to the underground cables for maintenance inspections, repairs, and replacement, if needed. 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 vaults would be delivered to the construction site utilizing a large flatbed semi-truck/trailer. Installation of each vault would generally entail excavation, shoring, and leveling of the splice vault pit using crushed gravel or flowable fill, followed by installation of the vault using a crane, filling, grouting and compacting the backfill, and repaving the excavated area. Backfill for splice vaults would consist of either compacted native soil, slurry, or concrete.

As described in **Section 3.5.6.2** below, specialized underground conductor installation techniques would be used where surface or underground conditions preclude utilization of standard trenching techniques. Specifically, the Proposed Project would include approximately three locations where a jack-and-bore would be used for railway crossings and two locations where an HDD would be used for watercourse crossings (locations depicted in **Figure 3-4**). As discussed further in **Section 3.5.8.1**, *Public Safety*, 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. Road barriers, signage, and flaggers would be utilized around construction areas in accordance with the TCP. The TCP would allow the transit of emergency response and maintenance vehicles.

#### 3.5.5.3 Telecommunications

As described in **Section 3.3.9**, *Telecommunication Lines* above, the Proposed Project would include new telecommunication lines connecting the two new HVDC terminals to each other, connecting the HVDC terminals to the existing Metcalf and San Jose B substations, and connecting the new terminals to local third-party internet providers. All new telecommunication lines are anticipated to be located underground, and no aboveground or wireless telecommunication (e.g., antennas) would be required. Where co-located with underground transmission lines, the telecommunication lines would be placed within the transmission line duct bank, and fiber splices would be contained within separate underground fiber splice vaults or at the substation termination structures. Fiber splices would not be located within the proposed transmission line splice vaults.

#### 3.5.5.4 Guard Structures

Guard structures are not anticipated to be required during the construction of the Proposed Project. The only overhead line included in the Proposed Project is the Skyline to San Jose B 115 kV station tie line. However, this line would be constructed directly between the new Skyline terminal and the rebuilt and expanded San Jose B substation. The short distance of this new line, in conjunction with the location, is not anticipated to require guard structures.

#### 3.5.5.5 Blasting

Blasting is not anticipated to be required during construction or operation of the Proposed Project.

### 3.5.6 TRANSMISSION LINE CONSTRUCTION (BELOWGROUND)

#### 3.5.6.1 Trenching

Open-cut trenching techniques would be used for the majority of transmission duct bank installation. After the route is marked, the pavement within the trench would be removed. For the typical duct bank, the pavement would be cut with a wet saw or asphalt zipper and excavated with an excavator. Jackhammers may be used sparingly to break up sections of concrete that the saw cutting and pavement-breaking machines cannot reach. Excavators would be used to remove all spoils, with the spoils being loaded into dump trucks. If groundwater is 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 further described in **Section 3.5.10.2**, *Dewatering* below. The typical width for the underground duct bank would be approximately 2.5 feet. The trench excavation width would typically vary between three to four

feet, based on shoring requirements. The typical trench depth for installation of the underground transmission lines would be approximately six feet deep (refer to **Figure 3-9**). Depths may vary depending on soil stability and existing substructures. The trench would be widened and shored where necessary to meet California Occupational Safety and Health Administration ("Cal/OSHA") safety requirements.

LS Power would then install the conduits (separated by spacers) and backfill around the conduits with flowable thermal concrete to form the duct bank encasement. The 320 kV duct bank and the 500 kV duct bank are both anticipated to have eight-inch diameter conduits for the XLPE cables. Additionally, two-inch diameter conduits for the telecommunications cable used for system protection and communication and ground wire(s) would be installed. Additional fluidized backfill would be utilized to fill most of the remainder of the trench. When located within roads, a road base backfill, flowable backfill, or slurry concrete cap would be installed, and the road surface would be restored in compliance with local requirements. While the duct bank is being installed and restored, an additional trench would be opened further down the alignment. This process would continue until all duct banks are installed. The trenching operation(s) would progress such that only a maximum of approximately 1,000 feet of trench at a single work site would be left open at any one time or as allowed by permit requirements. There would be multiple trenching crews working simultaneously along the route in different locations.

All trench backfilling material is anticipated to be flowable backfill. Trench backfill material would be evaluated for adequate thermal characteristics to dissipate heat to meet the design capacity of the new transmission lines. For a typical trench section, the duct bank would be encased in flowable thermal concrete, while the remainder of the upper trench section would be filled with fluidized backfill. Each duct bank would have a minimum of 36 inches of cover (refer to **Figure 3-9**).

For the proposed Grove to Skyline 320 kV DC transmission line trenching, approximately 95,000 CY of spoils would be removed from the trench. Minimal spoils are anticipated to be used as backfill, with flowable thermal concrete or flowable backfill anticipated to be used for the majority of backfilled material. For the proposed Metcalf to Grove 500 kV transmission line trenching, approximately 5,000 CY of spoils would be removed from the trench. As with the proposed Grove to Skyline 320 kV DC transmission line trenching, minimal spoils are anticipated to be used as backfill, with flowable thermal concrete or flowable backfill anticipated to be used. As such, almost all spoils would be removed and disposed of or reused off-site. Off-site disposal could occur at the Newby Island Landfill, the Kirby Canyon Landfill, the Ox Mountain Landfill, the Guadalupe Landfill, or another approved facility. Refer to **Section 3.5.12.1**, *Solid Waste* for additional information regarding disposal of excavated materials. Refer to **Section 3.5.11.2**, *Hazardous Materials Management*, and **Section 3.5.12.3**, *Hazardous Waste* for processes specific to hazardous materials and potentially contaminated soils or groundwater.

LS Power 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. Installation of each vault would generally entail excavation, shoring, and leveling of the splice vault pit using crushed gravel or flowable fill, followed by delivery on a low boy trailer and installation of the vault using a crane, filling, grouting and compacting the backfill, and repaving the excavated area. Backfill for splice vaults would consist of either compacted native soil, slurry, or concrete. Underground splice vaults for transmission lines would be located approximately every 1,500 to 3,000 feet. The proposed Grove to Skyline 320 kV transmission line splice vaults would have dimensions of approximately 32 feet long, 10 feet wide, and 10 feet tall, and the proposed Metcalf to Grove 500 kV transmission

line splice vaults would have dimensions of approximately 40 feet long, 10 feet wide, and 10 feet tall. The splice vault excavation would be approximately three feet wider on each side for the shoring and installation of the splice vault. 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. During construction, it is anticipated that up to three separate construction crews would be working on splice vault installations at different locations along the proposed transmission lines concurrently.

As further detailed in **Section 3.5.8.1**, LS Power would implement standard BMPs, including, but not limited to:

- The public would be restricted from entering construction work areas along the transmission lines.
- Public access restrictions would be maintained during the duration of construction activities at a given location.
- For work associated with the underground transmission lines in existing roads, temporary fences would be erected around open trenches and bore pits that are open for an extended period of time. Open trenches would be steel plated during non-working hours.
- All crossings of existing utilities would be done in a manner that ensures proper separations are maintained and proper supports are in place during the installation process.
- Road barriers, signage, and flaggers would be utilized around construction areas in accordance with the 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 minimizes impacts.

### 3.5.6.2 Trenchless Techniques

In addition to open-cut trenching, LS Power would use horizontal boring (jack-and-bore) or HDD construction techniques to install the conduit ducts where open-cut trenching is not feasible. Specifically, the Proposed Project includes two HDD locations and three jack-and-bore locations (refer to **Figure 3-4**). The jack-and-bore technique would involve concurrently pushing a casing pipe through the trenchless crossing and removing the spoil inside the casing with a rotating auger (refer to **Figure 3-12**). The HDD installation would use an auger with a drill and spray nozzle on the end to bore under an obstruction (refer to **Figure 3-13**). The trenchless crossings would be filled from end to end with a low strength fluidized backfill (e.g., thermal grout or bentonite slurry) to ensure consistent thermal contact between the conduits and the earth to promote heat dissipation.

The jack-and-bore sending and receiving pits would be located on either side of the features to be crossed. The sending and receiving pits for the jack-and-bore would be approximately 15 feet by 50 feet. The temporary workspace adjacent to the sending and receiving pits at the jack-and-bore site would be approximately 30 feet by 80 feet. However, these dimensions may vary depending on site-specific constraints and permit requirements. The standard depth of the pits would be approximately 10 feet below grade, with the top of the casing pipe generally at least four feet below grade. Depths may vary depending on soil stability and existing substructures. **Figure**

**3-12** depicts the typical jack-and-bore operation, including typical dimensions and arrangements. 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 fluidized backfill would be used following the trenchless construction. When located within roads, a road base backfill, flowable backfill, or slurry concrete cap would be installed, and the road surface would be restored in compliance with local requirements.

The HDD sending and receiving pits would be located on either side of the features to be crossed. The sending and receiving pits for the HDD would be approximately six feet by 20 feet. These pits would be used only for fluid containment before pumping the fluid to the control equipment for cleaning and re-circulation. A typical HDD sending and receiving pit would require the removal of approximately 20 CY of spoils. When located within roads, all pit spoils are anticipated to be hauled off-site, and a fluidized backfill would be used following 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 fluidized backfill would typically be used following 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. The typical temporary workspace around sending and receiving pits at the HDD site would be approximately 200 feet by 100 feet, but the temporary workspace dimensions may significantly vary to accommodate the site-specific constraints at each setup location. Pull back area for pipe staging and fusion would typically begin at the receiving pit and be longer than the proposed HDD's entire length. **Figure 3-13** depicts the typical HDD operation, including typical dimensions and arrangements. The pits would be shored where necessary to meet Cal/OSHA requirements. Geotechnical and topographical survey data would be used to design an HDD path that is adequately beneath the stream bed to minimize the likelihood of fracturing-out. During construction, drilling conditions would be monitored during drilling activities to ensure adequate conditions. Additionally, drilling fluid return volume would be continuously monitored. A significant drop in return volume would signify fracturing-out, and drilling would be stopped. The bore alignment and any stream crossings would be visually monitored for fracturing-out at a 100-foot radius. HDD operations under Coyote Creek would be scheduled during dry periods, if possible.

Dewatering and hazardous waste management are discussed further in **Section 3.5.10**, *Water Use and Dewatering,* **Section 3.5.11***, Hazardous Materials and Management, and* **Section 3.5.12***, Waste Generation and Management.* As discussed further in **Table 3-10**, *Applicant Proposed Measures*, **APMs HAZ-1** and **HAZ-2** have been included for a site-specific Spill Prevention, Control, and Countermeasures Plan (SPCCP) and a Hazardous Materials Management Plan (HMMP), and **APM WQ-1** describes dewatering procedures and measures. Additionally, 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 prior to trenchless construction activities commencing and remain in place until after trenchless construction activities are completed.
- Spoils would be stored at least 25 feet from any body of water and contained by a sediment barrier and plastic sheeting where practical.
- If using spoils as backfill, pits would be stabilized after backfilling is complete.

- Drilling fluid would be stored in water-tight containers when not in use.
- Emergency spill/fracturing-out kits would be staged near trenchless construction equipment.

### 3.5.7 SUBSTATIONS, SWITCHING STATIONS, AND GAS COMPRESSOR STATIONS

The Proposed Project includes the construction of two new HVDC terminals as well as upgrades at two existing PG&E substations. A GIS switching station would be constructed as part of each new HVDC terminal. There are no gas compressor stations being proposed.

#### 3.5.7.1 Facility Installation and Modification

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

Following site development, all necessary below-grade construction, including installation of structure and equipment foundations, underground ducts, and the ground grid would begin. Once earthwork and below-grade activities are completed, above-grade construction and equipment installation would take place. The enclosure would be erected, and major equipment and structures would be installed and anchored on their respective foundations. It is anticipated that all major electrical and terminal equipment, such as the converter transformers would be delivered to the terminal site and placed directly on foundations. Other terminal equipment, such as HVDC equipment, GIS equipment, riser structures, bus, conduit, cable trench, rebar, etc., would be received and temporarily stored at a staging area prior to installation. Transmission line terminations and distribution connections would be installed as part of the above-grade facilities. Following construction, temporary disturbance areas would typically be recontoured to match preconstruction grades.

For removals and modifications at the existing PG&E Metcalf and San Jose B substations, PG&E's construction sequence is preliminary, and the means and methods have yet to be determined.

#### 3.5.7.2 Civil Works

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

### 3.5.8 PUBLIC SAFETY AND TRAFFIC CONTROL

#### 3.5.8.1 Public Safety

The active HVDC terminal construction and staging areas would be fenced to restrict public access to the site. In addition, all open holes or trenches associated with the underground transmission lines would be covered at the end of the day to protect the public and construction workers. Public safety, with regards to traffic controls on roadways and trails, is discussed below. Public access restrictions would be maintained during the duration of construction activities and would be coordinated with local agencies when affecting public ROWs. Public access restrictions would vary from a few days or weeks for trenching operations to many months or years for staging areas. In addition, the following procedures would be implemented to ensure public and worker safety during construction:

- The public would be restricted from entering construction work areas and staging areas, both along the transmission lines and at the terminal sites.
- Public access restrictions would be maintained during the duration of construction activities at a given location.
- Each construction contractor would submit safety plans to LS Power for review and approval prior to commencement of construction activities.
- All crossings of existing utilities would be done in a manner that ensures proper separations are maintained and proper supports are in place during the installation process.
- 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.
- Road barriers, signage, and flaggers would be utilized around construction areas in accordance with the TCP. The TCP would allow the transit of emergency response and maintenance vehicles.
- Any spills or hazardous materials would be addressed according to the SWPPP, SPCCP (as defined in **Section 3.5.11.1**, *Hazardous Materials*), and HMMP (as defined in **Section 3.5.11.2**, *Hazardous Materials Management*) to ensure public safety.

#### 3.5.8.2 Traffic Control

Traffic control procedures may be implemented intermittently along Coleman Avenue, Santa Teresa Street, and Ryland Street for the proposed Skyline terminal and along Monterey Road for the proposed Grove terminal during construction and deliveries. Lane closures may be necessary along these roads when equipment is being delivered to the Proposed Project site. These traffic control procedures would be temporary and short-term based on delivery schedules. To facilitate underground transmission line construction, temporary closures of sidewalks, lanes, roads, trails, paths, and/or driveways would be necessary along the transmission line alignment where the proposed transmission lines are located within existing roads or trails to allow 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 LS Power would develop in consultation with the applicable local agencies (e.g., City of San José). While TCPs would govern underground

transmission line construction within public roadways for the full duration of said construction, traffic control measures such as lane closures and detours would be temporary and short term in any given location as underground construction moves along the alignment in a linear fashion.

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

#### 3.5.8.3 Security

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

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

#### 3.5.8.4 Livestock

Livestock are not anticipated to be encountered during construction or operation of the Proposed Project. Therefore, specific livestock fencing, guards, or other similar protective measures would not be required as part of the Proposed Project.

### 3.5.9 DUST, EROSION, AND RUNOFF CONTROLS

#### 3.5.9.1 Dust

During construction, migration of dust from the construction sites would be limited by control measures set forth by the APMs outlined in **Section 5.3**, *Air Quality*. These measures may include the use of water trucks and other dust control measures, including the application of non-toxic soil binders.

#### 3.5.9.2 Erosion

The Proposed Project would result in more than one acre of soil disturbance. As a result, the Proposed Project would be required to prepare, file, and implement an SWPPP in accordance with the State's General Permit for Stormwater Discharges Associated with Construction Activities (2009-009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-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.

#### 3.5.9.3 Runoff

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

For the proposed PG&E substation modifications, additional stormwater management measures may be required to address runoff from new or redeveloped impervious areas. If additional stormwater management measures are required, it may be possible to design measures that address a combination of stormwater management requirements (as opposed to designing separate measures to comply with each set of requirements).

### 3.5.10 WATER USE AND DEWATERING

#### 3.5.10.1 Water Use

The Proposed Project would minimize the amount of water required since a substantial amount of the required work would occur in paved roads. Water would regularly be used for dust control in the staging areas and terminal sites but less frequently used 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. Additionally, there is an existing water supply groundwater well on the proposed Grove terminal site that is proposed to be used for water supply during construction. It is estimated that a total of up to approximately 16 million gallons of water would be used for construction purposes during the approximately 24-month construction process, the majority of which would be used during the site development and below-grade construction phases at the terminal sites. It is anticipated that approximately 12 million gallons would be used for dust control while 4 million gallons would be used for site development and below-grade construction. The estimated water use during construction of each Proposed Project component would be approximately 6.5 million gallons for the proposed Grove terminal site, 4.5 million gallons for the Skyline terminal site, 400,000 gallons at the San Jose B substation, 600,000 gallons at the Metcalf substation, and 4 million gallons for transmission line construction and installation. Water used during construction activities would be temporary and originate from a local source that has the existing capacity to service the Proposed Project's needs. Specific water sources for trucked water would be determined prior to construction in coordination with the water suppliers based on availability and proximity of supplies. In addition to the potential use of potable water, recycled, reclaimed water, or groundwater would be used in accordance with

applicable regulations and acquired permits to meet the Proposed Project's construction needs. According to the current property owner of the proposed Grove terminal site, existing use of the groundwater well is approximately 10 AF (3,258,514 gallons) per year for irrigation. During construction water demand at the proposed Grove terminal site would not exceed supplies of the well Construction crews would be responsible for providing their own drinking water during construction.

Minimal water would be necessary to facilitate restoration of temporarily impacted areas following the completion of construction. The existing water supply groundwater well on the proposed Grove terminal site would be used during O&M for irrigation of the approximately 150 orchard trees remaining in place following construction. Proposed Project construction would entail removal of approximately 2,850 trees, and approximately 150 trees would be retained along the frontage of Monterey Road at the proposed Grove terminal site. The proposed change from 3,000 trees to 150 trees is a reduction of approximately 95 percent, which is a substantial reduction in irrigation needs on-site. Beyond irrigation needs during O&M, the Proposed Project would not require water sources for O&M activities, as the terminal facilities would be remotely operated with no permanent workforce on-site. LS Power personnel would be responsible for providing their own drinking water during O&M activities.

#### 3.5.10.2 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 allow acceptable de-sedimentation prior to discharge and tested for turbidity, pH, and other required parameters. The groundwater would be discharged into the storm sewer system when the water meets quality standards in accordance with applicable regulations and acquired permits or would be hauled off for disposal if quality standards are not met. Discharge may also be applied to flat, vegetated, upland areas, used for dust control, or used in other suitable construction operations (e.g., concrete mixing) if testing determines water is suitable for such use in accordance with applicable regulations and acquired permits.

### 3.5.11 HAZARDOUS MATERIALS AND MANAGEMENT

#### 3.5.11.1 Hazardous Materials

Hazards and hazardous materials are discussed in greater detail in **Section 5.9**. Construction of the Proposed Project 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 (SDS) 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 40 C.F.R. Parts 112.1-112.7). If pre-existing hazardous waste is encountered on the Proposed Project site, it would be removed and disposed of in a manner consistent with all state and federal regulations. It is not anticipated that herbicides or pesticides would be used during construction. As discussed further in **Table 3-10**, **APMs HAZ-1** and **HAZ-2** have been included for a site-specific SPCCP and HMMP.

#### 3.5.11.2 Hazardous Materials Management

Hazards and hazardous materials are discussed in greater detail in **Section 5.9**. Prior to construction, a SPCCP and HMMP would be prepared, describing hazardous materials use,

transport, storage, management, and disposal protocols. Construction would not begin until these plans are complete. The plans would be prepared in accordance with relevant state and federal 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 SDS 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 any secondary containment and countermeasures that would be required for hazardous materials;
- Spill response procedures based on product and quantity. The procedures would include materials to be used, location of such materials within the Proposed 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.

### 3.5.12 WASTE GENERATION AND MANAGEMENT

#### 3.5.12.1 Solid Waste

Solid wastes generated during construction would primarily be non-hazardous wastes, including wood, metal, paper, and plastic packaging. Construction debris volumes are estimated at a total of approximately 2,000 CY. Solid waste generated during construction of the Proposed Project would typically 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 non-recyclable materials would be stored separately at the staging areas. During trenching excavations, the excavated material would be loaded onto trucks and transported to an approved disposal facility or location of reuse. Construction waste would be disposed of properly and in accordance with all applicable federal, state, and local laws regarding solid and hazardous waste, including, but not limited to, the California Integrated Waste Management Act of 1989 which has set reduction rates for the amount of solid waste sent to landfills. Construction waste that cannot be recycled would ultimately be disposed of at the Newby Island Landfill, the Kirby Canyon Landfill, the Ox Mountain Landfill, the Guadalupe Landfill, or another approved facility (California Department of Resources, Recycling, and Recovery ["CalRecycle"], 2023a and 2023b). Additional information is provided in **Section 5.19**, *Utilities and Service Systems* and **Table 5.19-1**, *Waste Volume by Type*.

Earthwork associated with the Proposed Project would require cut and fill, and excess material after completion of grading and excavation would be approximately 143,000 CY. During trenching excavations, minimal excavated material would be used to backfill, with most of the excavated material not being reused. Cut material from terminal and substation site grading would be used as fill on-site, where possible. LS Power 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), where possible. 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. Where possible, recyclable construction material would be transported to an approved recycling facility.

#### 3.5.12.2 Liquid Waste

Liquid waste streams anticipated for the Proposed 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 ten workers on-site.

Stormwater runoff would be managed according to a stormwater management plan and associated SWPPP to comply with any general construction permits and approved by the local Regional Water Quality Control Board (RWQCB). If groundwater is 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 further described in **Section 3.5.10.2** above. Drilling fluid is anticipated to be disposed of at the Altamont Pass Landfill or another approved facility.

#### 3.5.12.3 Hazardous Waste

As discussed in **Section 3.5.11**, construction of the Proposed Project would require the limited use of hazardous materials, such as fuels, lubricants, cleaning solvents, and chemicals. Additionally, the Proposed Project would include transformers containing mineral oil, which is considered a hazardous material in the State of California. As described above, the Proposed Project would include the removal of approximately four existing PG&E distribution wood poles. The wood poles to be removed may have been treated with chemicals (e.g., penta oil, creosote, chemonite, and/or chromated copper, depending on the year of installation), which for certain uses and quantities can be considered regulated hazardous materials. Therefore, disposal of the wood poles would require specific testing and handling procedures prescribed by state and federal regulations. Additional potentially hazardous waste sources that could be encountered during construction include contaminated soils, incidental spill waste, and concrete washout.

Waste generated or encountered would be handled, contained, and disposed of according to federal, state, and local regulations. In addition, prior to construction, an HMMP would be prepared describing hazardous materials use, transport, storage, management, and disposal protocols. This could include containerization in DOT-approved vessels, review of relevant SDS, 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 Clean Harbors San Jose Facility or another approved facility. It is not anticipated that herbicides or pesticides would be used during construction. Additional information and analysis are provided in **Section 5.9**.

**Skyline Terminal Site Contamination**

As further described in **Section 5.9**, the proposed Skyline terminal site currently has a Covenant, which is dated May 9, 2017. The Covenant identifies that subsurface soils on the subject property have been impacted by metals, petroleum hydrocarbons, and semi-volatile organic compounds (SVOCs) due to past operations that consisted of a former railroad maintenance and fueling facility. The Covenant sets forth protective provisions, covenants, conditions, and restrictions on

the subject property that are necessary to protect present and future human health and safety or the environment due to the presence of hazardous materials on the subject property. The Covenant further identifies that the implementation of the approved SMP would successfully mitigate potential risks from soil exposure during construction and O&M.

The SMP includes several precautionary procedures to minimize exposure, including, but not limited to, the following:

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

### 3.5.13 FIRE PREVENTION AND RESPONSE

#### 3.5.13.1 Fire Prevention and Response Procedures

**Section 5.20**, *Wildfire* outlines the Proposed Project's fire risk. As described in that section, the Proposed Project would in part be located within a medium fire threat area, as identified by the California Department of Forestry and Fire Protection ("CAL FIRE") or the CPUC. However, impacts are not anticipated to occur, and no mitigation would be required. If required based on final design or permits, a Construction Fire Prevention Plan (or equivalent) would be prepared prior to construction based on final design and the approved Proposed Project footprint.

#### 3.5.13.2 Fire Breaks

During construction activities that are considered "hot work" (e.g., welding, grinding, or any other activity that creates hot sparks), LS Power would implement a ten-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 potential to produce a fire hazard, LS Power 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.

Under Section 35 of GO 95, the CPUC regulates all aspects of design, construction, and O&M of electrical power lines and fire safety hazards for utilities subject to their jurisdiction (CPUC, 2020). In addition, Fire Prevention Standards for Electric Utilities (California Code of Regulations [CCR] Title 14, sections 1250-1258) provide definitions, maps, specifications, and clearance standards for projects under the jurisdiction of California Public Resources Code (PRC) sections 4292 and 4293 in State Responsibility Zones. LS Power would design and construct the proposed terminals in accordance with all applicable state and federal regulations.

## 3.6 CONSTRUCTION WORKFORCE, EQUIPMENT, TRAFFIC, AND SCHEDULE

### 3.6.1 CONSTRUCTION WORKFORCE

Construction of the proposed terminal facilities and transmission lines is expected to occur simultaneously. The construction workforce and equipment deployed for the Proposed Project would be typical for similar transmission line and terminal construction projects of this size. It is anticipated that a maximum of approximately 60 workers would be employed at a single construction site at one time. The peak employment is anticipated to be approximately 250 workers, but, on average, the workforce on-site would be less. The workers would likely commute from the Greater Bay Area.

For the terminal sites, construction would occur at the site for the duration of the Proposed Project. For the underground transmission line activities, work would generally move in a linear fashion, with multiple duct bank, splice vault, trenchless crossing, and cable installation crews working simultaneously along the route in different locations. As practicable, the crews would be located along the route in a manner that minimizes impacts.

**Appendix 3-A**, *Construction Equipment and Workforce Table* lists the expected equipment and personnel by construction activity as well as a brief construction work plan summary for each activity. It also lists the uses of the equipment for each construction phase. This information is preliminary, and 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 Proposed Project design or implemented during construction as needed, based on site conditions.

### 3.6.2 CONSTRUCTION EQUIPMENT

The equipment that would be used to construct each Proposed Project component, along with its approximate duration of use, is provided in **Appendix 3-A**. In addition, a full list of equipment that would be used during construction is outlined and provided in **Table 3-5**, *Anticipated Construction Equipment*.

| Table 3-5: Anticipated Construction Equipment | |
|---|---|
| **Equipment Type** | **Equipment Use** |
| Air compressor | Operate air tools |
| Asphalt grinder | Grind asphalt |
| Asphalt paver | Restoration purposes |
| Backhoe | Excavate trenches |
| Boom truck | Access poles and other height-restricted items<br>Lift/set steel |
| Bucket truck/manlift | Set steel<br>Install equipment<br>Use as guard structure |
| Bulldozer | Grade access roads and terminal sites<br>Demolition |
| Cable dolly | Pull cable |
| Cable dolly (trailer) | Transport reels of cable (no engine; can be pulled by assist truck) |
| Compactor | Compact soil<br>Clear/grub/finish |
| Concrete boom crane pump truck | Pour concrete at a distance away from the truck |
| Concrete truck | Transport and pour concrete |
| Crane | Lift/position equipment and materials |
| Discing tractor and machine | Loosen soil for terminal sites |
| Dump truck | Haul excavated materials/import backfill, as needed |
| Excavator | Excavate soils/materials (trenching) |
| Excavating scraper | Grade pads and access roads |
| Forklift | Transport materials at construction sites and staging areas |
| Grader | Grading and soil movement<br>Restoring original contours |
| HDD machine | Trenchless crossing installation |
| Heavy hauler moving truck | Transport large equipment to site |
| Jackhammer | Break concrete and asphalt |
| Jack-and-bore machine | Trenchless crossing installation |
| Loader | Demolition<br>Load dump trucks |
| Potholing machine (hydro vacuum excavator) | Verify the locations of existing utilities |
| Pressure digger | Excavate for poles and foundations<br>Excavate trenches |
| Pickup truck | Transport construction personnel and material |
| Portable generator | Operate power tools, work trailers, and terminal sites |

| Table 3-5: Anticipated Construction Equipment | |
|---|---|
| **Equipment Type** | **Equipment Use** |
| Pulling rig/wire puller | Pull cables into duct |
| Reel trailer/wire trailer | Feed new conductor to the wire puller |
| Relay/telecommunication van | Transport and support construction personnel |
| Roller | Repair streets and compact soil |
| Security vehicle | Site security |
| Skid steer | Excavate trenches<br>Material movement |
| Splice truck/trailer | Store splicing supplies |
| Street sweeper | Clean paved roads |
| Tensioner | Control conductor at pulling tension during pulling operation |
| Tool van/conex | Tool storage |
| 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 | Equipment and materials for field welding |

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 component of the Proposed Project.

### 3.6.3 CONSTRUCTION TRAFFIC

The types and quantity of equipment that would be used to construct each Proposed Project component, along with its approximate duration of use, is provided in **Appendix 3-A**. For the proposed Skyline terminal, all construction vehicles and equipment would enter the Proposed Project area from Santa Teresa Street at an access point at the western terminus of Ryland Street. Vehicles would turn onto Santa Teresa Street, a north-south access road, from Coleman Avenue. For the proposed Grove terminal, all construction vehicles and equipment would enter the site from Monterey Road. 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. Parking of worker vehicles would generally occur within one of the staging areas, though some worker vehicle parking may occur on-site during underground transmission line construction within existing roads. Heavy truck traffic on city-maintained roadways may require a City of San José Traffic Control Permit and TCP. Implementation of a TCP would further reduce impacts to traffic congestion. Traffic controls would include, but not be limited to, traffic control cones, candles, electronic and/or temporary signage, and/or barricades between work zones and transportation facilities.

The peak vehicle trips would be during the duct bank excavation and installation portion of the Proposed Project (e.g., site development and below-grade construction activities) due to the number of crews and the hauling away or importation of fill. Total maximum daily vehicle trips (i.e., roundtrips) during this time period would be approximately 500 trips per day, consisting of approximately 300 truck trips and 200 worker trips. Other periods of the Proposed Project duration would have lower average worker vehicle trips and would, therefore, have correspondingly lower impacts. **Table 3-6**, *Estimated Average Daily Construction Traffic* outlines the average daily truck and worker-related vehicle trips, as well as the vehicle miles traveled (VMT) per construction phase.

**Table 3-6: Estimated Average Daily Construction Traffic**

| Construction Phase | Average Daily Truck Trips | Average Daily Worker Trips | Average Daily Truck VMT | Average Daily Worker VMT | Total Daily Average VMT |
|---|---|---|---|---|---|
| **Grove Terminal** | | | | | |
| Survey | 2 | 2 | 80 | 54 | 134 |
| Material Delivery | 3 | 5 | 300 | 135 | 435 |
| Road Work, Site and Staging Preparation | 25 | 18 | 750 | 540 | 1290 |
| Below-Grade Construction | 15 | 27 | 450 | 810 | 1260 |
| Above-Grade Construction and Equipment Installation | 10 | 27 | 300 | 810 | 1110 |
| **Skyline Terminal** | | | | | |
| Survey | 2 | 2 | 80 | 54 | 134 |
| Material Delivery | 3 | 5 | 300 | 135 | 435 |
| Road Work, Site and Staging Preparation | 25 | 18 | 750 | 540 | 1,290 |
| Below-Grade Construction | 15 | 27 | 450 | 810 | 1,260 |
| Above-Grade Construction and Equipment Installation | 10 | 27 | 300 | 810 | 1,110 |
| **Grove to Skyline 320 kV DC Transmission Line** | | | | | |
| Survey/Potholing | 8 | 13 | 240 | 378 | 618 |
| Vaults | 40 | 14 | 1,200 | 432 | 1,632 |
| Duct Bank and Restoration | 120 | 59 | 3,000 | 1,782 | 4,782 |
| Trenchless Crossings | 20 | 6 | 500 | 189 | 689 |
| Cable Install | 24 | 14 | 720 | 432 | 1,152 |
| **Metcalf to Grove 500 kV Transmission Line** | | | | | |
| Survey/Potholing | 6 | 6 | 180 | 189 | 369 |
| Vaults | 20 | 7 | 600 | 216 | 816 |
| Duct Bank and Restoration | 40 | 20 | 1,000 | 594 | 1,594 |
| Cable Install | 12 | 7 | 360 | 216 | 576 |
| **Other Construction Activities** | | | | | |

| Table 3-6: Estimated Average Daily Construction Traffic | | | | | |
|---|---|---|---|---|---|
| **Construction Phase** | **Average Daily Truck Trips** | **Average Daily Worker Trips** | **Average Daily Truck VMT** | **Average Daily Worker VMT** | **Total Daily Average VMT** |
| Commissioning and Testing | 6 | 18 | 180 | 540 | 720 |
| PG&E Metcalf Substation Upgrades and Connection | 5 | 9 | 150 | 270 | 420 |
| PG&E San Jose B Substation Upgrades and Connection | 12 | 14 | 360 | 405 | 765 |
| Staging Areas | 30 | 14 | 900 | 405 | 1,305 |
| Notes:<br>- Table assumes workers live approximately 15 miles away from the work site. This is based on the suburb area and the proximity of RV parks.<br>- Worker trips are commute trips by workers.<br>- Truck trips are trips moving from one site to another site. This does not include miles traveled on the Proposed Project site.<br>- Truck trips include water trucks, dump trucks, traffic control trips, and equipment delivery trips.<br>- Table is based on the landfill locations in relation to the Proposed Project. | | | | | |

Vehicle trips generated by construction personnel would generally occur with workers arriving at the site in the morning and leaving the site at the end of the day, with limited worker-related trips to or from the worksite during the course of 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 nighttime within certain areas of the Proposed Project. The most likely areas for nighttime construction would be within commercial and industrial areas and not residential areas. To reduce the potential number of daily worker-related vehicle trips to and from the site, LS Power would encourage carpooling where practicable.

### 3.6.4 CONSTRUCTION SCHEDULE

LS Power estimates that construction of the Proposed Project would take a total of approximately 24 months to complete, depending upon unforeseen/unpredictable factors such as weather. Construction is anticipated to begin in June 2026 and run through May 2028. Post energization performance testing would continue through approximately October 2028. The complete construction schedule, outlined by task, is summarized in **Table 3-7**, *Proposed Preliminary Construction Schedule*. Refer to **Appendix 3-A** for additional information regarding the construction schedule for each Proposed Project component.

| Table 3-7: Proposed Preliminary Construction Schedule | | | |
|---|---|---|---|
| **Construction Phase** | **Start Date** | **End Date** | **Approx. Number of Workdays** |
| **HVDC Terminals Construction** | | | |
| Site Development (includes survey, access road work, site and staging area preparation) | June 2026 | September 2026 | 120 |
| Below-Grade Construction | October 2026 | January 2027 | 120 |
| Above-Grade Construction and Equipment Installation | February 2027 | March 2028 | 350 |
| Commissioning and Testing | November 2027 | May 2028 | 175 |
| Post Energization Performance Testing | June 2028 | December 2028 | 125 |
| **Transmission Line Construction** | | | |
| Construction Mobilization and Surveying | June 2026 | May 2027 | 300 |
| Grove to Skyline 320 kV DC Transmission Line | July 2026 | April 2028 | 660 |
| Metcalf to Grove 500 kV Transmission Line | July 2026 | February 2028 | 600 |
| Commissioning and Testing | March 2028 | May 2028 | 75 |
| **Existing Substation Upgrades[1]** | | | |
| Metcalf Substation | December 2026 | May 2027 | 120 |
| San Jose B Substation | December 2026 | February 2028 | 450 |
| Notes:<br>[1] LS Power is not responsible for PG&E's project components. | | | |

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

### 3.6.5 WORK SCHEDULE

Construction activities on the Proposed Project would generally be scheduled to occur during daylight hours six days per week (Monday through Saturday). However, given the large amount of construction proposed within existing roads, local municipalities may dictate that transmission line construction occur at nighttime within certain areas of the Proposed Project to reduce traffic impacts and construction duration. The most likely areas for nighttime construction would be within commercial and industrial areas and not residential areas. In addition, night work may be required during portions of the trenchless construction (e.g., during jacking and pullback operations) to allow for continuous operation. All work hours for the underground transmission lines and trenchless crossings would be coordinated with the applicable municipalities. Additionally, 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 to address emergencies.

For the terminal sites, construction would occur at the site for the duration of the Proposed Project. For the underground transmission line activities, work would generally move in a linear fashion,

with multiple duct bank, splice vault, trenchless crossing, and cable installation crews working simultaneously along the route in different locations. As practicable, the crews would be located along the route in a manner that minimizes impacts.

## 3.7 POST-CONSTRUCTION

### 3.7.1 CONFIGURING AND TESTING

A final commissioning and testing plan would be coordinated with PG&E and CAISO to ensure system reliability during energization of the Proposed Project. Generally, commissioning and testing would begin with pre-commissioning activities that include equipment fit-up inspections, electrical and mechanical tests, and simple function tests to ensure the equipment is connected properly. Additionally, the protection/control systems for the terminals and transmission lines would be tested per Proposed Project requirements. After pre-commissioning is completed on the terminals and associated transmission lines, each terminal would be energized individually, followed by the energization of the proposed Grove to Skyline 320 kV DC transmission line connecting the terminals. To energize a terminal, the transmission lines to the nearby existing PG&E substations would first be energized. Next, the GIS switchyard portions of the terminals would be energized. This would be followed by the transformer energization. After confirmation that the transformer is working properly, functional tests would begin on the terminals to ensure the power electronic devices operate as designed. This would include various performance tests to ensure the terminals are able to meet all necessary electrical output. While running these tests, the terminal cooling systems would be tested to confirm adequate cooling of applicable power electronic devices. A similar sequence would be implemented to energize both terminals. Once commissioning and testing is complete for both terminals, the proposed Grove to Skyline 320 kV DC transmission line connecting the terminals would be energized. Additional performance tests to ensure the terminals are able to meet all necessary electrical output would be conducted following the energization of the proposed Grove to Skyline 320 kV DC transmission line. Post energization performance testing would continue through approximately October 2028. The personnel and equipment that would be used for commissioning and testing, along with the approximate duration of use, is provided in **Appendix 3-A**.

### 3.7.2 LANDSCAPING

The majority of the Proposed Project would be installed underground in City streets or otherwise in urban areas. Along the underground transmission line routes, landscaping would be restored to pre-existing conditions as needed. Substation and terminal sites would be surrounded by a security wall with minimal landscaping. The existing orchard trees along Monterey Road, at the proposed Grove terminal site, are proposed to be retained to provide visual screening and landscaping. The existing orchard trees would require irrigation, which would utilize the existing on-site water well. The orchard trees remaining in place would be greatly reduced compared to the existing orchard trees on-site. Thus, irrigation water use be reduced compared to the existing conditions. Additional landscaping would not be installed unless required by a local government or other jurisdictional agency. When required, landscaping would consist of drought resistant plants to minimize the need for watering and other maintenance. It is anticipated that any additional landscaping would also utilize the existing on-site water well for irrigation.

### 3.7.3 DEMOBILIZATION AND SITE RESTORATION

#### 3.7.3.1 Demobilization

Following completion of construction, the process of demobilization would begin. First, all equipment not needed for the remaining testing and revegetation would be removed. Next, all temporarily disturbed work areas would be restored to their preconstruction conditions. See below for site restoration details.

#### 3.7.3.2 Site Restoration

LS Power would restore all temporarily disturbed areas to approximate preconstruction conditions. Construction debris and waste would be removed and transported off-site to an approved disposal facility. Any types of Proposed Project waste materials that are routinely recycled would be recycled in an appropriate fashion at an approved disposal facility. LS Power would conduct a final inspection to ensure that cleanup activities are successfully completed. Areas that are disturbed by grading, augering, or equipment movement would be restored to their original contours and drainage patterns. Work areas would be de-compacted, and salvaged topsoil would be respread following recontouring to aid in the restoration of temporarily disturbed areas. Revegetation activities would be conducted in accordance with the Proposed Project SWPPP and APMs recommended herein. Restoration could include recontouring, reseeding, and planting replacement vegetation, as appropriate. Additional restoration efforts may include preparing the site for future utility uses. Erosion control measures may be required and would also be implemented in accordance with the Proposed Project SWPPP and APMs recommended herein. Disturbed roads would be reconstructed to the relevant transportation authority specifications. Reconstruction would include the restoration of all removed curbs, gutters, and sidewalks as well as the restoration of all removed or damaged paved surfaces, including the wear surface, striping, and signage.

## 3.8 OPERATION AND MAINTENANCE

### 3.8.1 REGULATIONS AND STANDARDS

O&M of the Proposed Project would be conducted in accordance with all applicable Federal Energy Regulatory Commission (FERC), NERC, CPUC, or CAISO requirements. Any O&M work would also be conducted in accordance with NESC, National Electrical Code (NEC), OSHA, and other applicable regulations and standards. Furthermore, since the Proposed Project would not be located within a high fire threat area, as identified by CAL FIRE or the CPUC, a project-specific Wildfire Management Plan is not required for O&M activities. However, LS Power would prepare a Wildfire Management Plan for its existing California projects prior to their energization, and this plan would be updated to include the Proposed Project prior to the energization of the Proposed Project.

The new transmission lines would also follow all applicable CPUC GOs; particularly GO 128, which governs the construction and maintenance of underground electric lines. LS Power would also comply with CAISO standards for inspection, maintenance, repair, and replacement.

### 3.8.2 SYSTEM CONTROLS AND OPERATION STAFF

The proposed HVDC terminals would be remotely monitored by LS Power's control center during O&M, which is staffed 24 hours a day, seven days a week. The LS Power control centers currently

operate high-voltage transmission lines and substations and meet all of the physical and cyber security requirements necessary to operate the Proposed Project. LS Power's control centers would be integrated into CAISO to operate the Orchard STATCOM and Fern Road GIS/STATCOM projects, which are currently under construction and are planned to enter operations prior to the Proposed Project.

LS Power would have a SCADA/Energy Management System (EMS) architecture that provides a scalable system capable of handling and processing millions of data points. The SCADA/EMS system would be designed to receive and store large amounts of data that can be used for real-time operations, equipment health monitoring, and predictive maintenance. It would consist of fully redundant servers, power supplies, and Local Area Network (LAN) connections, routers, and switches. If equipment malfunctions, O&M personnel would be dispatched to the site to investigate the problem and take appropriate corrective action. The Proposed Project would be operated and maintained by LS Power's control center in Austin, Texas and LS Power's local maintenance/technical staff, utilizing existing internal LS Power staff and external resources for maintenance and emergency response. The Proposed Project would be incorporated into LS Power's existing programs with existing equipment, experienced staff, and trusted contractors to provide operational and cost efficiencies with reduced risks. The Proposed Project would also be monitored by CAISO's control center in Folsom, California, and CAISO would have operational control of the HVDC terminals with authority to direct LS Power's control center.

LS Power currently maintains a transmission maintenance group staffed with experienced workers. LS Power would hire one technician to be located in close proximity to the Proposed Project to perform routine inspections, monitoring, and repairs. LS Power would also have two other technicians located in California for LS Power's other projects who would assist in O&M of the Proposed Project facilities, if needed. Day-to-day management of the Proposed Project would be provided by LS Power's asset management team.

### 3.8.3 INSPECTION PROGRAMS

#### 3.8.3.1 LS Power Facilities

**General Inspection Programs and Standards**

LS Power has developed standards for inspection that ensure a reliable high-voltage transmission system and is committed to complying with those standards. LS Power 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. LS Power would also have an approved Transmission Maintenance and Inspection Plan to comply with the provisions for the Orchard STATCOM and Fern Road GIS/STATCOM projects, which are currently under construction.

Prior to energization, the Proposed Project would be incorporated into LS Power's existing maintenance policies and procedures that are successfully utilized for maintaining highly reliable transmission systems across the United States. As part of these policies and procedures, LS Power has a Transmission Maintenance Plan (TMP) and Protection System Maintenance Program (PSMP) in which the Proposed Project would be incorporated. Additionally, an HVDC-specific maintenance plan would be developed based on the manufacturer's recommendations. The TMP and HVDC-specific maintenance plan would detail items such as inspection frequency and type, components to be inspected, qualifications of inspectors, and recordkeeping. LS

Power's PSMP would contain specific maintenance and testing procedures for applicable Protection System Component Types in compliance with NERC Standard PRC-005-6, as well as internal LS Power standards related to system protection. The maintenance and testing procedures are based upon manufacturers' recommendations, national standards, good utility practice, and NERC guidance documents.

**Project Specific Inspections**

Each of the major Proposed Project components would have specific inspection plans that detail inspection items, inspection period, and staff qualifications required to perform the inspections. In general, monthly visual inspections would be performed within the HVDC terminals to inspect equipment in accordance with manufacturer recommendations. This typically would be performed without taking the HVDC terminals out of service. It is anticipated that the terminals would be taken out of service to perform more extensive visual and electrical checks and maintenance on equipment within the HVDC terminals periodically according to manufacturer recommendations. Due to the diversity of equipment and the individual system components, a small, specialized team would execute the maintenance requirements. Inspection and maintenance would be performed by a small crew of one to two high-voltage technicians and one to two personnel provided by the equipment vendor with support provided by LS Power staff. Inspections and maintenance would be performed from the ground as well as from manlifts within the HVDC terminals.

The transmission line inspections would be performed by qualified technicians 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. No new access is anticipated for any of the Proposed Project inspection activities.

#### 3.8.3.2 PG&E Inspection Programs

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

### 3.8.4 MAINTENANCE AND OPERATIONS PROGRAMS

#### 3.8.4.1 LS Power Facilities

Once construction is complete, the Proposed Project typically would not be occupied on a daily basis. The HVDC terminals would be monitored and controlled by LS Power's control centers. A perimeter wall would enclose the Proposed Project, and all access gates would be locked to prevent the entry of unauthorized individuals. Access would be restricted further by posting signage on the exterior and at the entryway to the HVDC terminal facilities.

LS Power would hire one additional California-based technician to accommodate the integration and O&M of the Proposed Project. The technician would perform minor repairs and oversee the outside contractors for the maintenance of the Proposed Project. Repairs would be performed in accordance with the manufacturer's recommendations. In the event that equipment or parts replacements are required, LS Power would maintain critical spare parts and materials required to repair system facilities, including, but not limited to, HVDC valves, control panels, protection panels, cooling system, and medium voltage equipment. The spare parts inventory would be in addition to the more than three percent redundant HVDC valve submodules that would be

included as installed spares. A spare transformer and phase reactor would be stored on each HVDC terminal site and would be shared between the three transformers and six reactors, respectively.

It is anticipated that the terminals would be taken out of service to perform maintenance on equipment within the HVDC terminals periodically according to manufacturer recommendations. Due to the diversity of equipment and the individual system components, a small, specialized team would execute the maintenance requirements. Inspection and maintenance would be performed by a small crew of one to two high-voltage technicians and one to two personnel provided by the equipment vendor with support provided by LS Power staff. Inspections and maintenance would be performed from the ground as well as from manlifts within the HVDC terminals.

The transmission line inspections would be performed by qualified technicians 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, maintenance would be performed on the transmission line component as required.

Impacts from the Proposed Project to surrounding utilities would be studied, and any cathodic protection required as a result of the Proposed Project would be coordinated with the impacted utility. If required, landscaping would be designed to require little to no maintenance.

LS Power would regularly inspect, maintain, and repair the Proposed Project and HVDC terminal access roads following completion of Proposed Project construction. These inspections would look at 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.

#### 3.8.4.2 PG&E Facilities

PG&E would continue its regular O&M at its San Jose B and Metcalf substations.

### 3.8.5 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. 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), removing excessive growth, ROW mowing, ROW side cutting, removal of encroaching trees, and vegetation removal to mitigate wildfire risks. In accordance with fire break clearance requirements in PRC 4292 and Title 14, Section 1254 of the CCR, LS Power would trim or remove flammable vegetation and all other safety hazards in the area surrounding the Proposed Project site. 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 10-foot line clearance. LS Power would typically inspect the HVDC terminals on an annual basis to determine if brush clearing is required. Due to the underground nature of the Proposed Project, LS Power would also look for underground

vegetation encroachments, including tree roots, water intrusion, and other natural occurring environmental encroachments.

## 3.9 DECOMMISSIONING

### 3.9.1 DECOMMISSIONING

#### 3.9.1.1 LS Power Facilities

The plan is for the Proposed Project to 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 the Proposed Project facilities.

#### 3.9.1.2 PG&E Facilities

PG&E is not subject to decommissioning and would retain its facilities as long as they are useful.

## 3.10 ANTICIPATED PERMITS AND APPROVALS

### 3.10.1 ANTICIPATED PERMITS AND APPROVALS

The CPUC is the lead California agency for the Proposed Project. LS Power must comply with CPUC's GO 131-D Section III-B, which contains the permitting requirements for construction of the Proposed Project (CPUC, 2023). This PEA was prepared as part of an application to obtain a CPCN for the Proposed Project. Although PG&E is not an applicant in LS Power's application for a CPCN, PG&E's scope of work is needed to interconnect the Proposed Project to PG&E's electrical grid. PG&E's substation modification and expansion would be included in the CPUC's CEQA analysis. However, PG&E would likely utilize the adopted CEQA document to separately comply with the CPUC's permitting requirements under GO 131-D.

In addition to the CPCN, LS Power may be required to obtain several other permits from federal, state, and local agencies. **Table 3-8**, *Anticipated Permits and Approvals* lists the permits, approvals, and licenses that LS Power anticipates obtaining from jurisdictional agencies.

**Table 3-8: Anticipated Permits and Approvals[1]**

| Agency | Permit/ Approvals[2] | Permit Trigger | Application Process | Timing |
|---|---|---|---|---|
| City of San José | Traffic Control Plan | Partial closure and/or encroachment within City roads. | Submit TCP to City of San José for review and approval. | Prior to the start of construction requiring traffic control. |
| City of San José | Encroachment Permit | Construction within City roads or ROWs. | Submit application to City of San José for review and approval. | Prior to the start of construction within City roads or ROW. |
| City of San José | Administrative Use Permit | Stand-by/back-up generator that does not exceed noise or air quality standards within the Downtown Zoning District. | Submit application to City of San José for review and approval. | Prior to the start of construction. |

| Table 3-8: Anticipated Permits and Approvals[1] | | | | |
|---|---|---|---|---|
| **Agency** | **Permit/ Approvals[2]** | **Permit Trigger** | **Application Process** | **Timing** |
| City of San José | Grading Permits (non-discretionary) | Grading for the terminal sites. | Submit application to City of San José for review and approval. | Prior to the start of construction of the terminal sites. |
| County of Santa Clara | Encroachment Permit | Work within County roads or ROW. | Submit application to County of Santa Clara for review and approval. | Prior to the start of construction within County roads or ROW. |
| County of Santa Clara | Traffic Control Plan | Closure or use of traffic control on County roads. | Submit TCP to County of Santa Clara for review and approval. | Prior to the start of construction requiring traffic control. |
| County of Santa Clara | Grading Permits (non-discretionary) | Grading for the Grove terminal site. | Submit application to County of Santa Clara for review and approval. | Prior to the start of construction of the terminal sites. |
| SCVWD | Encroachment Permit | Work on or near SCVWD land, easement, or facility. | Submit application to SCVWD for review and approval. | Prior to the start of construction within or near SCVWD property. |
| California Department of Transportation (Caltrans) | Encroachment Permit | Construction under Caltrans roads or with Caltrans ROWs. | Submit application to Caltrans for review and approval. | Prior to 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. | Prior to bidding for construction of the applicable underground feature. |
| California Department of Fish and Wildlife (CDFW) | Section 2081 Incidental Take Permit (ITP) 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. | Prior to the start of construction. |
| Santa Clara Valley Habitat Conservation Plan (HCP) (multiple agencies) | State and Federal Incidental Take Permit | Potential impacts to covered State and Federal species. | Apply for coverage under the Santa Clara Valley HCP. | Prior to the start of construction. |
| U.S. Fish and Wildlife Service (USFWS) | Section 7 or Section 10 ITP | 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. | Prior to the start of construction. |
| Federal Aviation Administration (FAA) | Title 14 of the Code of Federal Regulations (CFR) Part 77 Notification | Construction of overhead facilities potentially requiring aerial lighting or marking. | Notification (FAA Form 7460-1) submitted to FAA. | Prior to the start of construction. |

| Table 3-8: Anticipated Permits and Approvals[1] | | | | |
|---|---|---|---|---|
| **Agency** | **Permit/ Approvals[2]** | **Permit Trigger** | **Application Process** | **Timing** |
| State Water Resources Control Board (SWRCB) | CWA, National Pollutant Discharge Elimination System General Permit for Discharge of Construction Related Stormwater | SWPPPs are required for stormwater discharges associated with construction activities that disturb more than one acre of land. | Prepare SWPPP and submit Notice of Intent with the SWRCB. | Prior to the start of construction. |
| Union Pacific Railroad | New Wireline Crossing Authorization | Installation of new underground transmission line under existing Union Pacific's existing railroad via jack-and-bore. | Submit application to Union Pacific for review and approval. | Prior to the start of construction within or near Union Pacific ROW |
| Santa Clara Valley Transportation Authority (VTA) | Construction Access Permit and Light Rail Restricted Access Permit | Installation of new underground transmission line under existing VTA's light rail system via jack-and-bore. | Submit application to VTA for review and approval. | Prior to the start of construction within or near VTA ROW |
| CPUC | California Public Utilities Code Section 1001 et seq. and CPUC GO 131-D CPCN | Construction of transmission line and electrical substation facilities governed by GO 131-D. | Submit CPCN Application and PEA to CPUC. The CPUC would initiate the process and make a proposed and final CPCN ruling. | Prior to the start of construction. |

[1]Permit requirements in this table only apply to the applicant and are separate from appliable permits for PG&E upgrades and modifications.
[2] Permits/approvals listed in this table are potentially required and do not necessarily represent a comprehensive list of all possible permits/approvals required for the Proposed Project.

### 3.10.2 RIGHTS-OF-WAY OR EASEMENT APPLICATIONS

LS Power would acquire six parcels of land through the purchase of privately-owned parcels, totaling approximately 24 acres, for construction and O&M of the Proposed Project HVDC terminals.

In addition to the land purchase transactions, additional ROW, franchise, or easement rights would be required for the two underground transmission lines included in the Proposed Project. These requirements are also summarized in **Table 3-9**, *Permanent Land and ROW Requirements*.

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

| Table 3-9: Permanent Land and ROW Requirements | | |
|---|---|---|
| **Proposed Project Component** | **Approximate Length (miles)** | **Approximate Area (acres)** |
| Grove to Skyline 320 kV DC Transmission Line | 13 | 6 |
| Metcalf to Grove 500 kV Transmission Line | 1.2 | 1 |

## 3.11 APPLICANT PROPOSED MEASURES AND BEST MANAGEMENT PRACTICES

PG&E is not an applicant in this CPCN application proceeding and would not be subject to the APMs listed below. However, PG&E would comply with a separate list of construction BMPs as set forth in **Section 3.11.2**, *PG&E Construction Best Management Practices*.

### 3.11.1 APPLICANT PROPOSED MEASURES

LS Power would be responsible for overseeing the construction and environmental teams that would implement the Proposed Project APMs. LS Power would manage construction to allow for implementation of the APMs to be monitored, documented, and enforced during each Proposed Project phase, as appropriate. All those contracted by LS Power to perform this work would be provided with all relevant permits, conditions, and APMs, as well as instructions on how to properly implement 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 LS Power compliance with all APMs as proposed. As needed, environmental specialists would be retained to verify that all APMs are properly implemented during the construction phase.

The APMs are described in **Table 3-10** and are described in detail in **Section 5.0**, *Environmental Analysis,* which includes an analysis of why the APM was selected and how it would reduce and/or minimize potential impacts. In addition, all applicable CPUC Draft Environmental Measures were included, as needed, to further reduce potential impacts.

If conditions occur where construction may potentially adversely affect a known or previously unknown environmentally sensitive resource, or if construction activities significantly deviate from Proposed Project requirements, LS Power 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 if corrective action is required, or the concerns would be addressed on-site, as applicable. As the proposed APMs are implemented, environmental monitors from LS Power 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.

| Table 3-10: Applicant Proposed Measures | |
|---|---|
| **APM Number** | **Description** |
| **Aesthetics** | |
| **AES-1** | **Maintenance of Construction Areas**. All Proposed Project construction sites shall be maintained in a clean and orderly state. Temporary construction and permanent security nighttime lighting shall be directed away from residential areas and have shields to prevent light spillover effects. Upon completion of Proposed Project construction, Proposed Project staging and temporary work areas shall be returned to pre-Proposed Project conditions, including re-grading of the site and re-vegetation or re-paving of disturbed areas to match pre-existing contours and conditions. |
| **AES-2** | **Site Design and Landscape Management Plan.** A Site Design and Landscape Management Plan shall be developed for the Skyline and Grove terminals and could include, but not be limited to, the following requirements:<br>• Structures and equipment at the proposed HVDC terminals shall have a non-reflective finish and a beige, grayish hue, or neutral earth-tone colors to the extent practicable.<br>• Existing vegetation along the proposed Grove terminal western site boundary shall remain and be maintained unless safety and security would be compromised.<br>• Consideration of local guidance documents, where applicable, such as the City of San José Guadalupe River Park & Gardens Urban Design Guidelines (2003), unless safety and security would be compromised, or if it would interfere with the future operations and maintenance of the facility. |
| **Air Quality** | |
| **AQ-1** | **Construction Fleet Minimum Requirements and Tracking**. LS Power shall ensure that at least 75 percent of equipment horsepower hours related to off-road construction equipment include Tier 4 interim or Tier 4 final emissions controls. An initial listing that identifies each off-road unit's certified tier specification to be operated on the Proposed Project shall be submitted to the CPUC for review before the start of construction activities. Construction activities shall not begin until the equipment listing has been submitted to the CPUC.<br><br>As LS Power requires new or replacement construction equipment on the Proposed Project, LS Power shall document verification of the certified engine tier before their use on Proposed Project sites. Before the start of construction, LS Power shall develop a diesel-powered equipment-use hours tracking tool and procedure. The tracking tool shall be utilized by LS Power to keep track of the certified engine tier and daily equipment use hours of all off-road diesel-powered equipment. If all diesel-powered equipment is Tier 4 certified, the tracking tool is not required. The tracking tool shall be maintained by LS Power, and tracking updates shall be submitted to the CPUC on a monthly basis to track the Proposed Project's compliance. The updated tracking tool shall be submitted to the CPUC no later than the tenth day of the following month. |
| **AQ-2** | **Dust Control BMPs**. LS Power shall implement the following measures to control fugitive dust during construction activities: |

| Table 3-10: Applicant Proposed Measures | |
|---|---|
| **APM Number** | **Description** |
| | • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.<br>• All haul trucks transporting soil, sand, or other loose material off-site shall be covered.<br>• 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.<br>• All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).<br>• All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.<br>• Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.<br>• All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.<br>• All trucks and equipment, including their tires, shall be washed off prior to leaving the site.<br>• 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.<br>• 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. |
| **AQ-3** | **Naturally-Occurring Asbestos Compliance**. LS Power shall ensure that construction activities comply with existing regulations pertaining to naturally-occurring asbestos (NOA), including the CARB Airborne Toxic Control Measures (ACTMs) for NOA, when construction activities have the potential to encounter NOA. ACTM for NOAs include dust control measures consistent with **APM AQ-2**. |
| **Biology** | |
| **BIO-1** | **Restoration of Disturbed Areas**. Areas that are temporarily disturbed by the Proposed Project activities shall be restored to approximate preconstruction conditions. Areas that are disturbed by grading, augering, or equipment movement shall be restored to their original contours and drainage patterns. Work areas shall be de-compacted, and salvaged topsoil materials shall be respread following recontouring to aid in restoration of temporarily disturbed areas. Revegetation activities shall be conducted in accordance with the Proposed Project SWPPP and APMs. Restoration could include recontouring, reseeding, and planting replacement vegetation, as appropriate. Temporarily disturbed areas shall be revegetated with appropriate weed-free native seed mixes or species that are characteristic of the plant community that was disturbed. |
| **BIO-2** | **Rare Plant Surveys**. Protocol surveys and preconstruction surveys shall be conducted within all Proposed Project impact areas, and suitable buffers shall be established within suitable habitat areas for special-status plants. In the event of the discovery of a special-status plant, the area shall be marked as a sensitive area and shall be avoided to the extent practicable. If avoidance is not possible, LS Power shall consult with the |

| Table 3-10: Applicant Proposed Measures | |
|---|---|
| **APM Number** | **Description** |
| | USFWS and/or CDFW for ITPs. Preconstruction surveys shall be conducted within Proposed Project impact areas 14 to 30 days prior to the start of construction for any rare plants that are identified during the focused surveys. Construction activities that may impact rare plants, including movement of construction equipment and other activities outside of the fenced/paved areas within suitable habitat, shall be monitored by a qualified biologist. Upon the discovery of sensitive plants, the qualified biologist shall have the authority to stop work activities and, following the identification and implementation of steps required to avoid or minimize impacts to sensitive plants, direct construction work to commence once more. |
| **BIO-3** | **Preconstruction Sweeps.** Prior to initial vegetation clearance and ground-disturbing activities, a qualified biologist shall conduct preconstruction survey sweeps of the Proposed Project work area for special-status wildlife and plants in areas that contain potentially suitable habitats. In the event of the discovery of a special-status plant, the area shall be marked as a sensitive area and shall be avoided to the extent practicable. If avoidance is not possible, LS Power shall seek coverage from the Santa Clara Valley HCP, or shall consult with the USFWS and/or CDFW for ITPs. Any other construction activities that may impact sensitive biological resources, including movement of construction equipment and other activities outside of the fenced/paved areas within wildlife habitat, shall be monitored by a qualified biologist. The qualified biologist shall have the authority to stop work activities upon the discovery of sensitive biological resources and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to sensitive resources. |
| **BIO-4** | **Sensitive Area Demarcation**. All sensitive biological areas (including creeks, wetlands, and special-status species habitats) within the Proposed Project work area shall be clearly marked prior to construction commencement to restrict construction activities and equipment from entering these areas. These markings shall be inspected regularly to ensure that they remain in place. |
| **BIO-5** | **Vehicle Cleaning Prior to Entering Natural Areas**. Vehicles and equipment shall be cleaned prior to use in native habitat on the Proposed Project areas to avoid the spread of noxious weeds and non-native invasive plant species. |
| **BIO-6** | **Vehicle Speed Limits**. Speed of vehicles driving along proposed access roads and on the Proposed 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 Proposed Project site that are public roadways which shall be limited to posted speed limits. In addition, construction and maintenance employees shall be required to stay on established and clearly marked and existing roads, except when not feasible due to physical or safety constraints and shall be advised that care should be exercised when commuting to and from the Proposed Project area to reduce accidents and animal road mortality. |
| **BIO-7** | **Outdoor Lighting Measures**. The use of outdoor lighting during construction and O&M shall be minimized whenever practicable. Photocell and motion detection-controlled lighting shall be provided at a level sufficient to provide safe entry and exit to the Proposed Project terminals and control enclosures and for security purposes. All lighting shall be selectively placed, shielded, and directed downward to the extent |

| Table 3-10: Applicant Proposed Measures | |
|---|---|
| **APM Number** | **Description** |
| | 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. |
| **BIO-8** | **Worker Environmental Awareness Program (WEAP) Training**. A WEAP shall be implemented to educate all on-site construction workers on site-specific biological and non-biological resources and proper work practices to avoid harming wildlife during construction activities. This WEAP shall include measures to reduce trash buildup during construction. |
| **BIO-9** | **Nesting Birds and Roosting Bats Protection**. If feasible, LS Power shall avoid certain construction activities such as vegetation trimming/removal during the migratory bird nesting and breeding and roosting bat seasons. When it is not feasible to avoid construction during these seasons, LS Power shall perform a nesting bird and roosting bat survey in the area where the work is to occur. This survey shall be performed to determine the presence or absence of nesting birds and roosting bats. If roosting bats or active nests (i.e., containing eggs or young) are identified, a suitable construction buffer shall be implemented to ensure that the nesting or breeding activities are not substantially adversely affected. If the nesting or breeding activities are being conducted by a Federal or State-listed species, LS Power shall consult with the USFWS and CDFW as necessary. A qualified biologist shall monitor the nest until the birds have fledged or construction is no longer occurring on the site. |
| **BIO-10** | **San Joaquin Kit Fox (SJKF) Surveys**. Protocol surveys and preconstruction survey sweeps shall be conducted within all proposed impact areas and suitable buffers within suitable habitat areas for San Joaquin kit fox (SJKF). In the event of the discovery of occupied burrows and/or SJKF individuals, the area and a suitable buffer shall be marked as a sensitive area and shall be avoided to the extent practicable. If avoidance is not possible, USFWS and/or CDFW shall be consulted. Any other construction activities that may impact SJKF, including movement of construction equipment and other activities outside of the fenced/paved areas within suitable habitat, would be monitored by a qualified biologist. The qualified biologist shall have the authority to stop work activities upon the discovery of suitable burrows or live individuals and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to SJKF. |
| **BIO-11** | **Excavation Wildlife Safety BMPs**. Excavated holes/trenches that are not within areas that have wildlife exclusion fencing or that are not filled at the end of a workday shall be covered or a wildlife escape ramp shall be installed to prevent the inadvertent entrapment of wildlife species. |
| **BIO-12** | **Special-Status Bird Surveys**. Protocol surveys shall be conducted for Swainson's hawk and bald eagle; focused surveys shall be conducted for tricolored blackbird and other raptors; and preconstruction survey sweeps shall be conducted within all proposed impact areas and suitable buffers within suitable habitat areas for Swainson's hawk, tricolored blackbird, bald eagle, burrowing owl, and other raptors. In the event of the discovery of suitable habitats, nests, or live individuals, the area and a suitable buffer shall be marked as a sensitive area and shall be avoided to the extent |

| Table 3-10: Applicant Proposed Measures | |
|---|---|
| **APM Number** | **Description** |
| | practicable. If avoidance is not possible, USFWS and/or CDFW would be consulted. Tricolored blackbird is a covered species under the Santa Clara Valley HCP; if impacts are identified during species-specific surveys, the take for this species shall be covered either under the HCP or covered under a State ITP in consultation with CDFW. If impacts are identified during species-specific surveys for the other State-listed bird species that are not covered under the Santa Clara Valley HCP (Swainson's hawk, bald eagle, and any other bird species that are identified), the take shall be covered under a State ITP in consultation with CDFW. Any other construction activities that may impact special-status birds, including movement of construction equipment and other activities outside of the fenced/paved areas within suitable habitat, shall be monitored by a qualified biologist. Additionally, qualified biologists shall monitor all active nests to ensure that construction activities are not disturbing the nest. The monitor/inspector shall have the authority to stop work activities upon the discovery of nests or live individuals and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to sensitive birds. |
| **BIO-13** | **Raptor Surveys**. If a raptor nest is observed within 500 feet of the Proposed Project during focused or preconstruction surveys, a qualified biologist shall determine if it is active. If the nest is determined to be active, the qualified biological monitor shall monitor the nest to ensure that nesting or breeding activities are not substantially adversely affected. If the biological monitor determines that activities associated with the Proposed 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. |
| **BIO-14** | **Nesting Bird Surveys**. Preconstruction nest surveys shall be conducted within all proposed impact areas and suitable buffers within suitable habitat areas for Migratory Bird Treatment Act (MBTA)-protected birds. In the event of the discovery of an active nest, the area and a suitable buffer shall be marked as a sensitive area and shall be avoided to the extent practicable. If avoidance is not possible, USFWS and/or CDFW shall be consulted. Any other construction activities that may impact nesting birds, including movement of construction equipment and other activities outside of the fenced/paved areas within suitable habitat, shall be monitored by a qualified biologist. Additionally, biologists shall monitor all active nests to ensure that construction activities are not disturbing the nest. The monitor/inspector shall have the authority to stop work activities upon the discovery of nests or live individuals and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to nesting birds. |
| **BIO-15** | **Special-Status Invertebrate Surveys**. Protocol surveys and preconstruction surveys shall be conducted within all proposed impact areas and suitable buffers within potentially suitable habitat areas for bay checkerspot butterfly, monarch butterfly, and Crotch's bumblebee. In the event of the discovery of suitable habitat, host plants, or individuals of these special-status invertebrates, the area shall be marked as a sensitive area and shall be avoided to the extent practicable. Bay checkerspot butterfly is a covered species under the Santa Clara Valley HCP. If avoidance of the |

| Table 3-10: Applicant Proposed Measures | |
|---|---|
| **APM Number** | **Description** |
| | bay checkerspot butterfly is not possible, the take for this species shall be covered either under the Santa Clara Valley HCP or under a Federal ITP in consultation with the USFWS. If impacts are identified during species-specific surveys for Monarch butterflies or Crotch's bumblebee which are not covered under the Santa Clara Valley HCP, the take shall be covered under a Federal ITP (monarch butterfly; Federal candidate species) or State ITP (Crotch's bumblebee; State candidate species) in consultation with CDFW or USFWS. Any other construction activities that may impact special-status invertebrates or their habitats, including movement of construction equipment and other activities outside of the fenced/paved areas within suitable habitat, shall be monitored by a qualified biologist. The qualified biologist shall have the authority to stop work activities upon the discovery of individuals or host plants and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to sensitive invertebrates. |
| **BIO-16** | **Special-Status Amphibian Surveys**. Protocol surveys shall be conducted for California tiger salamander and California red-legged frog; focused surveys shall be conducted for foothill yellow-legged frog; and preconstruction surveys shall be conducted within all proposed impact areas and suitable buffers within suitable habitat areas for California tiger salamander, California red-legged frog, and foothill yellow-legged frog. In the event of the discovery of suitable habitats or live individuals, the area and a suitable buffer shall be marked as a sensitive area and shall be avoided to the extent practicable. If avoidance is not possible, USFWS and/or CDFW shall be consulted. Any other construction activities that may impact special-status amphibians, including movement of construction equipment and other activities outside of the fenced/paved areas within suitable habitat, shall be monitored by a qualified biologist. The qualified biologist shall have the authority to stop work activities upon the discovery of live individuals and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to sensitive amphibians. |
| **Cultural Resources** | |
| **CUL-1** | **WEAP Training**. LS Power shall obtain a qualified archaeologist to design the cultural resources component of a WEAP that shall be provided to all Proposed Project personnel who may encounter and/or alter historical resources or unique archaeological properties, including construction supervisors and field personnel. The WEAP shall be submitted to the CPUC prior to construction. No construction worker shall be involved in ground-disturbing activities without having participated in the WEAP. The WEAP shall include, at a minimum:<br>• Training on how to identify potential cultural resources and human remains during the construction process;<br>• A review of applicable local, state, and federal ordinances, laws, and regulations pertaining to historic preservation;<br>• A discussion of procedures to be followed in the event that unanticipated cultural resources are discovered during implementation of the Proposed Project;<br>• A discussion of disciplinary and other actions that could be taken against persons violating historic preservation laws and LS Power policies; and |

| Table 3-10: Applicant Proposed Measures | |
|---|---|
| **APM Number** | **Description** |
| | • A statement by the construction company or applicable employer agreeing to abide by the WEAP, LS Power policies, and other applicable laws and regulations.<br>The WEAP may be conducted in concert with other environmental or safety awareness and education programs for the Proposed Project, provided that the program elements pertaining to cultural resources are designed by a qualified archaeologist, which is defined as an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology (36 CFR Part 61). |
| **CUL-2** | **Archaeological and Native American Monitoring**. Archaeological and Native American monitoring shall be conducted during ground disturbance associated with the Proposed Project when within 100 feet (30 meters) of previously recorded prehistoric, ethnohistoric resources or after unanticipated discovery of same. Archaeological monitoring shall be conducted during ground disturbance associated with the Proposed Project when within 100 feet (30 meters) of previously recorded historic-period resources, or after unanticipated discovery of the same. Prehistoric and/or ethnohistoric archaeological sites have been recorded within the Proposed Project area, and the Sacred Lands File (SLF) search and Tribal outreach indicates that lands sacred to the Muwekma Ohlone Indian Tribe of the San Francisco Bay Area, the Ohlone Indian Tribe, the Tamien Nation, and the Amah Mutsun Tribal Band are present within the Proposed Project search area. In addition, historic era archaeological sites have been recorded within the Proposed Project area. A qualified archaeologist shall be retained by LSP to monitor excavation in each work area for the Proposed Project in accordance with the above monitoring criteria to ensure that there is no impact to any significant unanticipated historical resource. A qualified archaeologist and a Native American monitor determined during Tribal consultation shall be retained by LS Power to monitor excavation in each work area for the Proposed Project in accordance with the above monitoring criteria to ensure that there is no impact to any significant unanticipated cultural resource. Procedures to be followed in the event that a Native American monitor is not available shall be determined during Tribal consultation. Native American monitoring requirements established in this APM may be superseded by government-to-government consultation conducted between the CPUC and Tribal organizations as part of the AB 52 process or otherwise. |
| **CUL-3** | **Unanticipated Discovery of Potentially Significant Prehistoric and Historic Resources**. In the event that previously unidentified cultural resources are uncovered during implementation of the Proposed Project, all work within 100 feet (30 meters) of the discovery shall be halted and redirected to another location. LS Power'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 cultural resource records, and no further effort shall be required. If the resource cannot be avoided and may be subject to further impact, LS Power'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 |

| Table 3-10: Applicant Proposed Measures | |
|---|---|
| **APM Number** | **Description** |
| | 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, LS Power'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. |
| **CUL-4** | **Cultural Resources Inventory**. The temporary construction staging areas shall be surveyed prior to construction. If additional proposed facilities and ground-disturbing activities move outside the previously surveyed acreage, the new areas shall be subjected to a cultural resources inventory to ensure that any newly identified cultural resources are either avoided by project redesign or evaluated and treated. |
| **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. LS Power's qualified archaeologist shall contact the County of Santa Clara Coroner to determine whether or not the remains are Native American. If the remains are determined to be Native American, the Coroner shall contact the Native American Heritage Commission (NAHC). The NAHC shall then identify the person or persons it believes to be the most likely descendant of the deceased Native American, who in turn shall make recommendations for the appropriate means of treating the human remains and any associated funerary objects. No part of the Proposed Project is located on federal land and no federal monies are involved; therefore, the Proposed Project is not subject to the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA). |
| **Geology, Soils, and Paleontological Resources** | |
| **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:<br>• Keep vehicle and construction equipment within the limits of the Proposed Project and in approved construction work areas to reduce disturbance to topsoil;<br>• Geotechnical studies shall be completed to evaluate the risk of geologic hazards associated with the Proposed Project. The geotechnical studies shall provide geotechnical engineering recommendations relative to subsurface soil and rock conditions, groundwater conditions, lateral earth pressures, and seismic classifications of the Proposed Project area. Recommendations from the geotechnical studies shall be considered in the final design;<br>• 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;<br>• 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 |

| Table 3-10: Applicant Proposed Measures | |
|---|---|
| **APM Number** | **Description** |
| | areas shall be recontoured following construction to match preconstruction grades. Areas shall be allowed to revegetate naturally or be reseeded with a native seed mix from a local source if necessary. On-site material storage shall be sited and managed in accordance with all required permits and approvals; and<br>• 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. |
| **PALEO-1** | **Paleontological Resources 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 Proposed Project. The PRMMP shall contain monitoring procedures, define areas and types of earthwork to be monitored, and provide methods for determining the significance of fossil discoveries. The PRMMP shall direct that a qualified paleontological monitor (working under the supervision of the qualified paleontologist) shall monitor all excavations or grading at depths exceeding seven feet below ground surface where potentially fossil-bearing alluvial deposits of Pleistocene age may be present. The duration and timing of paleontological monitoring shall be determined by the qualified paleontologist based on the grading plans and construction schedule and may be modified based on the initial results of monitoring. The PRMMP shall state that any fossils that are collected shall be prepared to the point of curation, identified to the lowest reasonable taxonomic level, and curated into a recognized professional repository (e.g., San Diego Natural History Museum, University of California Museum of Paleontology), along with associated field notes, photographs, and compiled fossil locality data. The repository shall be contracted prior to the start of earthwork to curate and store any discovered and recovered fossils. Such an institution shall be a recognized paleontological specimen repository with a permanent curator, such as a museum or university. Donation of the fossils shall be accompanied by financial support for initial specimen curation and storage.<br><br>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. |
| **PALEO-2** | **Paleontological Resource 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. |

| Table 3-10: Applicant Proposed Measures | |
|---|---|
| **APM Number** | **Description** |
| **Hazards, Hazardous Materials, and Public Safety** | |
| **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 SPCC 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. |
| **HAZ-2** | **Hazardous Materials Management Plan**. An 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:<br>• 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;<br>• A Hazardous Materials Communication (i.e., HAZCOM) Plan;<br>• Assignments and responsibilities of Proposed Project health and safety roles;<br>• Standards for any secondary containment and countermeasures required for hazardous materials;<br>• 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; and<br>• Protocols for the management, testing, reporting, and disposal of potentially contaminated soils or groundwater observed or discovered during construction. This shall include termination of work within the area of suspected contamination sampling by an OSHA-trained individual and testing at a certified laboratory.<br>The Proposed Project will 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.<br>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 Proposed Project. |
| **HAZ-3** | **Skyline Terminal Soil and Groundwater Contamination Management**. Construction activities at the proposed Skyline terminal (within the College Park Parcel 2 site) shall comply with the SMP that was prepared as part of the Covenant for the proposed Skyline terminal property. This includes, but is not necessarily limited to:<br>• Soil sampling before construction begins shall be conducted to identify the presence of contamination and specific contaminants.<br>• Impacted soils, if encountered, shall be stockpiled on-site in approximate 100 to 250 CY volumes. The soil stockpiles shall be covered with 10-mil plastic sheeting and secured to prevent dust or runoff during storm events. All appropriate dust control and |

| Table 3-10: Applicant Proposed Measures | |
|---|---|
| **APM Number** | **Description** |
| | stormwater BMPs shall be implemented during the soil mitigation activities.<br>• Upon completion of excavation work and confirmation sampling, the excavation shall be backfilled with the excavated soil or clean import fill. Import fill shall be tested in general accordance with DTSC requirements, prior to acceptance. Imported soil shall be placed in accordance with the Proposed Project's geotechnical engineer's recommendations.<br>In addition to adherence to the SMP, LS Power shall implement measures to address potentially contaminated groundwater, if encountered. If groundwater is encountered during construction at the proposed Skyline terminal site, it shall be sampled prior to disposal. If dewatering must occur, groundwater shall be pumped directly to baker tanks (or similar) portable storage tanks. The groundwater shall not be transported or disposed of until it has been tested for possible contamination. All groundwater extracted from the proposed Skyline terminal site shall be handled, transported, and disposed according to applicable laws and regulations. |
| **HAZ-4** | **Soil Management Plan**. A Soil Management Plan shall be prepared prior to construction that identifies specific steps necessary to properly identify, handle, treat, and dispose of potentially contaminated soils throughout the Proposed Project area where known contamination occurs in close proximity to project-related ground disturbance. The Soil Management Plan shall include, but not be limited to, the following requirements:<br>• Prior to commencement of construction activities within the 12 contaminated sites discussed above, the soil along the path of the underground alignment shall be sampled to identify any potential contaminants. The soil sampling shall include testing for specific contaminants identified in agency records.<br>• If sampling identifies soil contaminated above hazardous waste levels, the soil shall be contained and disposed of at a licensed waste facility. The presence of known or suspected contaminated soil shall require testing and investigation procedures to be supervised by a qualified person, as appropriate, to meet state and federal regulations.<br>• In the event that soils suspected of being contaminated (on the basis of visual, olfactory, or other evidence) are removed during site grading activities or excavation activities, the excavated soil shall be tested, and if contaminated above hazardous waste levels, shall be contained and disposed of at a licensed waste facility. |
| **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. LS Power shall conduct a detailed Final Induction Study for all existing metallic utilities in close proximity to proposed transmission line alignments. Where potential adverse effects are identified by the induction study, LS Power 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. |

| Table 3-10: Applicant Proposed Measures | |
|---|---|
| **APM Number** | **Description** |
| **Hydrology and Water Quality** | |
| **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:<br>• Recovered groundwater shall be contained on-site and tested prior to discharge;<br>• 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 (e.g., concrete mixing);<br>• Land application shall be made in a manner that discharge does not result in substantial erosion;<br>• Water unsuitable for land application shall be disposed of at an appropriately permitted facility; and<br>• Discharge to surface waters or storm drains may occur only if permitted by the agency(ies) with jurisdiction over the resource (e.g., USACE, RWQCB, and/or CDFW, as applicable). |
| **Noise** | |
| **NOI-1** | **Vibration Monitoring for High Vibratory Equipment Contingency Plan**. Once the final design and alignment are determined for the proposed Grove to Skyline 320 kV DC transmission line, a site survey would be conducted along segments of the proposed transmission line alignment where construction may occur within 25 feet of existing structures to determine if any vibration sensitive structures are located within 25 feet of vibration-inducing construction activities. Vibration sensitive structures are those structures at least 50 years old, or generally constructed before approximately 1974. If construction with high vibratory equipment occurs within 25 feet of such structures, a Vibration Monitoring for High-vibratory Equipment Contingency Plan would be implemented. The Vibration Monitoring for High-vibratory Equipment Contingency Plan would be implemented to include the following, as necessary, to prevent vibration damage to vibration sensitive structures:<br>• Identification of vibration-sensitive structures within 25 feet of the final transmission line alignment where high vibratory equipment is planned to be used.<br>• Where such structures are identified, LS Power would attempt to use the following measures as necessary to avoid construction vibration impacts:<br>○ Place operating equipment on the construction site as far as feasible from vibration-sensitive receptors.<br>○ Use smaller equipment to minimize vibration levels below the limits.<br>○ Avoid using vibratory rollers and tampers near sensitive areas.<br>○ Select demolition methods not involving impact tools.<br>• If the above reduction measures do not lower anticipated vibration levels below loaded truck levels or are not feasible, a technical vibration study would be prepared by a qualified professional who verifies that there would be virtually no risk of cosmetic or structural damage. |

| Table 3-10: Applicant Proposed Measures | |
|---|---|
| **APM Number** | **Description** |
| | • Based on the results of vibration study, identify where vibration monitoring would be conducted, establish a vibration monitoring schedule, define structure-specific vibration limits, and address the need to conduct photo, elevation, and crack surveys to document before and after construction conditions.<br>• Construction contingencies would be identified for when vibration levels approach the limits identified by vibration study. Construction contingencies may include procedures such as use of alternative construction equipment or construction phasing that would reduce potential damage to affected structures.<br>• Designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person would be clearly posted at the construction site.<br>• The results of all vibration monitoring would be summarized and submitted in a report shortly after substantial completion of construction that occurs within 25 feet of vibration-sensitive structures. The report would include a description of measurement methods, equipment used, calibration certificates, and graphics as required to clearly identify vibration-monitoring locations. An explanation of all events that exceeded vibration limits would be included together with documentation supporting any such claims. |
| **Recreation** | |
| **REC-1** | **Trail Management Plan**. LS Power shall coordinate with the City of San José, County of Santa Clara, and the National Park Service for the preparation of the Proposed Project's TMP. The TMP shall identify if a detour route(s) is required, as well as provide trail-specific traffic control and safety measures for pedestrians, trail users, and motorists. |
| **REC-2** | **Trail Safety Crossing Measures**. If Coyote Creek Trail from Metcalf Road to Bailey Avenue is not already closed by Santa Clara County Parks due to flooding of low water trail crossings of Coyote Creek, LS Power's construction contractor shall provide a crossing guard, as needed during periods of active construction along the approximately 0.8-mile portion of Coyote Creek Trail that would be directly impacted by construction of the Proposed Project. Alternatively, if use of a crossing guard is not practical during certain construction activities (i.e., a trail closure is required), the Coyote Creek Trail detour route identified in the TMP shall be implemented. Signage and flagging may be used to help direct trail users and provide safety for both trail users and construction crews. |
| **REC-3** | **Trail Restoration.** Areas of Coyote Creek Trail that are temporarily disturbed by the Proposed Project activities shall be restored to approximate preconstruction conditions. |
| **Transportation** | |
| **TRA-1** | **Traffic Control Plan**. LS Power shall prepare a TCP to describe measures to be taken to guide traffic (such as signs and workers directing traffic), safeguard construction workers, provide safe passage, and minimize traffic impacts. LS Power shall follow its standard safety practices, including installing appropriate barriers between work zones and transportation facilities, posting adequate signs, and using proper construction techniques. LS Power shall follow the recommendations regarding basic |

| Table 3-10: Applicant Proposed Measures | |
|---|---|
| **APM Number** | **Description** |
| | standards for the safe movement of traffic on streets in accordance with Section 21400 of the California Vehicle Code. As required for obtaining a local encroachment permit, LS Power 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. Emergency service providers shall be notified as required by the local permit of the timing, location, and duration of construction activities. |
| **TRA-2** | **Coordinate Bus Closures with Santa Clara VTA**. If required during construction, LS Power shall coordinate any bus stop closures with the Santa Clara VTA in advance to minimize disruptions to service. Where disruptions to service are anticipated, advanced notice shall be given to allow transit users on affected routes to identify and locate a temporary interim bus stop(s). Measures that may be implemented to give advanced notice of disruptions to service may include, but not necessarily be limited to, posting signage at bus stops with planned closures and posting notices for anticipated route detours and bus stop closures on the Santa Clara VTA website. Identification and implementation of specific measures shall be implemented in coordination with Santa Clara VTA. |
| **TRA-3** | **Repair Infrastructure**. LS Power shall oversee all aspects of construction and shall ensure that contractors repair any damage caused by construction activities. LS Power shall confer with local agencies as needed to ensure repairs are sufficient and consistent with preconstruction conditions. |
| **Tribal Cultural Resources** | |
| **TCR-1** | **WEAP Training**. LS Power shall work with interested Tribes to design the TCRs component of a WEAP that shall be provided to all Proposed 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:<br>• Training on how to identify potential TCRs and human remains during the construction process;<br>• A review of applicable regulations pertaining to TCRs;<br>• A discussion of procedures to be followed in the event that unanticipated TCRs are discovered during implementation of the Proposed Project;<br>• 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.<br>• A statement by the construction company or applicable employer agreeing to abide by the WEAP, LS Power policies, and other applicable laws and regulations.<br>The WEAP may be conducted in concert with other environmental or safety awareness and education programs for the Proposed Project, provided that the program elements pertaining to cultural resources are designed with the input of interested Tribes. |

| Table 3-10: Applicant Proposed Measures | |
|---|---|
| **APM Number** | **Description** |
| **TCR-2** | **Native American Monitoring**. Native American monitoring shall be conducted during ground disturbance associated with the Proposed Project when within 100 feet (30 meters) of previously recorded prehistoric, ethnohistoric, or TCRs. Prehistoric and/or ethnohistoric archaeological sites have been recorded within the Proposed Project area, and the SLF search and Tribal outreach indicates that lands sacred to the Muwekma Ohlone Indian Tribe of the San Francisco Bay Area, the Ohlone Indian Tribe, the Tamien Nation, and the Amah Mutsun Tribal Band are present within the Proposed Project search area. A Native American monitor determined during Tribal consultation shall be retained by LS Power to monitor excavation associated with the Proposed Project to ensure that there is no impact to any significant unanticipated prehistoric, ethnohistoric, or TCR. Prior to construction, LS Power 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 and Service Systems** | |
| **UTIL-1** | **Coordination with Utilities**. LS Power shall notify all utility companies with utilities located within or crossing the Proposed Project ROW to locate and mark existing underground utilities along the entire length of the Proposed Project. Due to the linear nature of transmission line construction, utilities shall be marked in short segments at least 14 days prior to construction within said segments. No subsurface work shall be conducted that would conflict with (i.e., directly impact or compromise the integrity of) a buried utility. In the event of a conflict, areas of subsurface excavation shall be realigned vertically and/or horizontally, as appropriate, to avoid other utilities and provide adequate operational and safety buffering or relocation of the existing utility shall be coordinated with each utility owner/operator. LS Power shall coordinate with third-party utilities and shall submit the intended construction methodology to the owner of the third-party utility for review and coordination. Construction methods shall be adjusted as necessary to ensure that the integrity of existing utility lines is not compromised. |

### 3.11.2 PG&E BEST MANAGEMENT PRACTICES

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

The construction BMPs are described in **Table 3-11**, *PG&E Best Management Practices (BMPs) and Field Protocols (FPs)* and discussed in **Section 5.0**, which includes an analysis of why each BMP or FP was selected and how it would reduce and/or minimize potential impacts.

If conditions occur where construction may potentially adversely affect a known or previously unknown environmentally sensitive resource, or if construction activities significantly deviate from Proposed 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 if 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 3-11: PG&E Best Management Practices (BMPs) and Field Protocols (FPs)**

| 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, or an off-road diesel-fueled vehicle with a primary engine ≥25 horsepower, in excess of five minutes unless conducting one or more of the following activities:<br>• Doing work for which the vehicle was intended;<br>• Powering equipment necessary to perform a job function;<br>• Operating lights or signals to direct traffic at a PG&E job site;<br>• Service, testing or maintenance on the vehicle;<br>• Regenerating an exhaust filter;<br>• 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;<br>• Idling due to traffic conditions beyond the vehicle operator's control;<br>• Warming an engine up to operating temperatures, as specified by the equipment manufacturer;<br>• 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** | **Asbestos**. Because Metcalf substation is located in an area with known encounters of Naturally Occurring Asbestos (NOA), PG&E shall follow PG&E's Utility Procedure: ENV-1002P-02 for construction and grading activities at Metcalf substation to ensure compliance with applicable State of California regulations including the Asbestos Airborne Toxic Control Measure (AATCM).<br><br>PG&E is responsible for obtaining permits from the air district prior to start of work. |
| **BMP AQ-3** | **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:<br>• Construction;<br>• Demolition;<br>• Excavation;<br>• Trenching; |

| Table 3-11: PG&E Best Management Practices (BMPs) and Field Protocols (FPs) | |
|---|---|
| **BMP or FP Number** | **Description** |
| | • Grading;<br>• Sand blasting;<br>• and other earthmoving activities.<br>Visible emissions of fugitive dust from PG&E project activities must be maintained within the project boundary. The crew shall abate dust by:<br>• Applying water to disturbed areas and to storage stockpiles;<br>• Covering and securing stockpiled soil at the end of each workday;<br>• Applying water in sufficient quantities to prevent dust plumes during activities such as clearing & grubbing, backfilling, trenching and other earth moving activities;<br>• Limit vehicle speed to 15 miles per hour within approved unpaved work areas and along unpaved roads;<br>• 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;<br>• Clean-up track-out at least daily;<br>• Escalate preventative measures as needed to match conditions<br>• Consider postponing construction activities during high wind events; and<br>• 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-4** | **Portable Equipment Registration Program.** PG&E requires that portable engines be registered into the Statewide Portable Equipment Registration Program (PERP) administered by the CARB, if:<br>• the engine is portable (mounted on a truck, trailer, skids, or wheels);<br>• the engine is 50 brake horsepower or greater, and;<br>• the engine does not provide motive force for a vehicle.<br>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.<br><u>Standard Requirements:</u><br>• If a current placard, registration sticker, and registration paperwork is not on the unit, the crew shall NOT use the piece of equipment and have it replaced with a unit that is compliant.<br>• For Rental Units: residence time onsite must be logged upon arrival onsite and upon removal. This record shall be retained and made available for review by the project Environmental Field Specialist (EFS).<br><u>Additional Requirements:</u> |

| Table 3-11: PG&E Best Management Practices (BMPs) and Field Protocols (FPs) | |
|---|---|
| **BMP or FP Number** | **Description** |
| | • If the PERP unit is being used to provide primary or supplemental power to a building during an electrical upgrade there is a 90-day limit on the use of PERP.<br>• If the PERP unit is being used to provide primary or supplemental power to a building for greater than 12 months and an electrical upgrade is not happening a local air district permit is required.<br>• If the PERP generator is being used for PSPS support in the following air districts a local air district permit will be required:<br>o Bay Area Air Quality Management District (AQMD)<br>o Placer County AQMD<br>o Yolo-Solano AQMD<br>o Northern Sonoma AQMD<br>o San Joaquin Valley APCD<br>o Feather River AQMD<br>• If the PERP generator is being used for EPSS support in the following air districts a local air district permit may be required:<br>o Monterey Bay ARD<br>o Feather River AQMD<br>• If the PERP Unit is being used to replace a failed stationary source generator:<br>o a local district notification is required within 72 hours;<br>o a Tier 4 Final Engine should be used;<br>o and a local district permit may be required in 180 days.<br>• If the PERP unit is being used for Capacity Shortfall in Feather River AQMD or Yolo-Solano AQMD, a local air district permit is required.<br><u>Greenhouse Gas (GHG) Facility Requirements:</u><br>If diesel portable engines greater than 50 brake horsepower (bhp) are operated on-site at a GHG facility subject to the Mandatory Reporting Rule for GHGs (MRR) at any time, the AB617 PERP Log must be completed. Refer to the PERP Engine Tracking Requirements at GHG Reporting Facilities 5MM for details. |
| **BMP AQ-5** | **Tier 4 Construction Equipment**. At least 75 percent of construction equipment with a rating between 100 and 750 hp would be required to use engines compliant with EPA Tier 4 non-road engine standards. In the event enough Tier 4 equipment are not available to meet the 75-percent threshold, documentation of the unavailability would be provided and engines utilizing a lower standard would 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, and trees, small mammal burrows, and unique natural features (e.g., rock outcrops). |

| Table 3-11: PG&E Best Management Practices (BMPs) and Field Protocols (FPs) | |
|---|---|
| **BMP or FP Number** | **Description** |
| **FP-5** | Notify conservation landowner at least two business days prior to conducting covered activities on protected lands (state and federally owned wildlife areas, ecological reserves, or conservation areas); more notice shall be provided if possible or if required by other permits. If the work is an emergency, as defined in PG&E's Utility Procedure ENV-8003P-01, PG&E shall notify the conservation landowner within 48 hours after initiating emergency work. While this notification is intended only to inform conservation landowner, PG&E shall attempt to work with the conservation landowner to address landowner concerns. |
| **FP-6** | Minimize potential for covered species to seek refuge or shelter in pipes and culverts. Inspect pipes and culverts, with a diameter wide enough to be entered by a covered species that could inhabit the area where pipes are stored, for wildlife species prior to moving pipes and culverts. Immediately contact a biologist if a covered species is suspected or discovered. |
| **FP-7** | Vehicle speeds on unpaved roads shall not exceed 15 mph. |
| **FP-8** | Prohibit trash dumping, firearms, open fires (such as barbecues), hunting, and pets (except for safety in remote locations) at work sites. |
| **FP-9** | During fire season in designated State Responsibility Areas, equip all motorized equipment with federally approved or state-approved spark arrestors. Use a backpack pump filled with water and a shovel and fire-resistant mats and/or windscreens when welding. During fire "red flag" conditions as determined by Cal Fire, curtail welding. Each fuel truck shall 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, 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 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 |

| Table 3-11: PG&E Best Management Practices (BMPs) and Field Protocols (FPs) | |
|---|---|
| **BMP or FP Number** | **Description** |
| | 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 six 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** | **Worker Environmental Awareness Training**. A qualified biologist will develop an environmental awareness training program that is specific to the project. All on-site construction personnel will attend the training before they begin work on the project. Training will include a discussion of the construction management practices that are being implemented to protect biological resources as well as the terms and conditions of any project permits. |
| **BMP BIO-2** | **Burrowing Owl**. A survey for evidence of burrowing owl (sign or presence) should be conducted prior to initial ground disturbance. The survey can occur within the best detection timeframe and within two weeks of construction. If burrowing owl are detected, consult with the CDFW. |
| **BMP BIO-3** | **Nesting Birds**. If work is anticipated to occur within the nesting bird season (February–August), nesting birds, including raptors and other species protected under the Migratory Bird Treaty Act, may be impacted. If active nests are discovered, exclusionary measures and/or designated avoidance buffers may be required and implemented according to the guidance in the PG&E Nesting Bird Management Plan. The project biologist determines if the construction action will impact the nest, and if so, identifies whether alternative actions or monitoring can be implemented to avoid impacts. If active nests are observed during construction, crews must immediately alert the PG&E project biologist. |
| **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** | **Archaeological and Native American Monitoring**. Archaeological and Native American monitoring shall occur for all project-related ground disturbance affiliated with work at or adjacent to San Jose B Substation and Metcalf Substation. PG&E will retain a qualified archaeologist and Native American monitor for all ground disturbing activities completed by PG&E. The archaeological and Native American monitor will closely inspect all exposed surfaces and sediments for cultural resources in result of construction activities and have stop work authority if a cultural resource is identified. Furthermore, the CRM and Native American |

| Table 3-11: PG&E Best Management Practices (BMPs) and Field Protocols (FPs) | |
|---|---|
| **BMP or FP Number** | **Description** |
| | monitor/representative will work with construction crews in systematically redirecting ground disturbing activities until the CRS and Native American monitor/representative can investigate the cultural resource discovery. |
| **BMP CULT-3** | **Inadvertent Discovery**. If any new cultural resources are encountered during Proposed Project activities, all work must be suspended in the vicinity (approximately 100 feet) of the resource, and the Cultural Resource Specialist (CRS) shall be immediately notified. At that time, the CRS shall coordinate any necessary investigations of the site with appropriate specialists, as needed. PG&E may be required to implement protective measures deemed necessary for the protection of the cultural resources.<br><br>Prehistoric resources that may be identified during Proposed Project implementation may include, but are not limited to, stone tools and manufacturing debris made of obsidian, basalt, and other lithic materials; milling equipment such as bedrock mortars, portable mortars, and pestles; and locally darkened soils (midden) that may contain dietary remains such as shell and bone, as well as human remains. Historic resources that may be identified include, but are not limited to, small cemeteries or burial plots, structural foundations, cabin pads, cans with soldered seams or tops, bottles or fragments of clear and colored glass, cut (square) nails, and ceramics. |
| **BMP CULT-4** | **Flag and Avoid Known Resources**. Sites will be marked with flagging tape, safety fencing, and/or sign designating it as an "environmentally sensitive area" to ensure that PG&E construction crews and heavy equipment will not intrude on these sites during construction. At the discretion of the PG&E CRS, monitoring may be done in lieu of or in addition to flagging. If it is determined that the project cannot avoid impacts on one or more of the sites, then, for those sites that have not been previously evaluated, evaluation for inclusion in the National Register of Historic Places (NRHP)/California Register of Historic Resources (CRHR) will be conducted. Should the site be found eligible, appropriate measures to reduce the impact to a less-than-significant level will be implemented, including, but not limited to, data recovery, photographic and archival documentation, or other measures as deemed appropriate. If it is determined that sites that have been previously determined to be eligible for inclusion in either the NRHP or CRHR cannot be avoided, measures will be implemented to reduce the impact to a less-than-significant level, including, but not limited to, data recovery, photographic and archival documentation, or other measures as deemed appropriate. |
| **BMP CULT-5** | **Human Remains**. In keeping with the provisions provided in 7050.5 of the California Health and Safety Code (CHSC) and Public Resource Code 5097.98, if human remains are encountered (or are suspected) during any Proposed Project-related activity, PG&E shall:<br>• Stop all work within 100 feet;<br>• Immediately contact the CRS, who shall then notify the County Coroner;<br>• Secure location, but do not touch or remove remains and associated artifacts;<br>• Do not remove associated spoils or pick through them;<br>• Record the location and keep notes of all calls and events; and<br>• Treat the find as confidential and do not publicly disclose the location. |

| Table 3-11: PG&E Best Management Practices (BMPs) and Field Protocols (FPs) | |
|---|---|
| **BMP or FP Number** | **Description** |
| | If the human remains are of Native American origin, the coroner must notify the NAHC within 24 hours of such identification. The most likely descendant shall work with the CRS to develop a program for re-interment or other disposition of the human remains and any associated artifacts. No additional work shall take place within the immediate vicinity of the find until the appropriate actions have been implemented. |
| **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 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. The paleontologist will be responsible for developing the recovery strategy and will lead the recovery effort, which will include establishing recovery standards, preparing specimens for identification and preservation, documentation and reporting, and securing a curation agreement from the approved facility. |
| **Hazards, Hazardous Materials, and Public Safety** | |
| **BMP HAZ-1** | **Oil-Filled Electrical Equipment (OFEE)**. The following measures shall be followed:<br>• OFEE shall be managed in accordance with ENV-3000P-02-JA01 Job Aid: Handling In-Service Electrical Equipment from the Field.<br>• If during the removal/replacement of OFEE, visible evidence of an oil leak is identified (e.g., seeping, weeping, staining, sheen), contact your local Environmental Field Specialist (EFS) immediately to determine cleanup actions and regulatory reporting requirements.<br>• 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.<br>• All leaking equipment must be patched, pumped, or containerized in the field so that it will not leak during transport; taken straight back to the Service Center (i.e., stops at laydown yards are prohibited); and placed in the designated returned equipment area with a completed yellow condition tag.<br>• 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.<br>o **Note**: Do NOT transport to a PG&E waste consolidation site. |

| Table 3-11: PG&E Best Management Practices (BMPs) and Field Protocols (FPs) | |
|---|---|
| **BMP or FP Number** | **Description** |
| **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 (1000 cubic feet for simple asphyxiation or the release of pressure only; carbon dioxide), 500 pounds 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:<br>• Counties: Nevada, San Bernardino (waste only), San Francisco, Santa Clara (call for city specific details), Santa Cruz, Yuba (waste only)<br>• Cities: Bakersfield (waste only), Berkeley, Healdsburg, Sebastopol, Petaluma, Santa Clara (call for city specific details)<br>• PG&E shall develop an HMBP as necessary. |
| **BMP HAZ-3** | **Hazardous Waste Management**. This Proposed Project may involve the storage of hazardous materials, and they must be managed according to regulations and the following BMPs.<br>• All releases of hazardous materials must be immediately addressed. Maintain a spill kit on-site during the length of the Proposed Project. Contact the Proposed Project EFS for spills of hazardous materials/wastes to determine if agency notifications shall be required and/or if additional resources are needed.<br>• Hazardous materials, greater than 440 pounds (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 Proposed Project EFS for additional guidance in these areas.<br>• All hazardous materials containers must be marked correctly.<br>• All hazardous materials signs must be displayed as required.<br>• Non-saturated oily rags (to be laundered) stored in non-combustible containers.<br>• Emergency equipment such as fire extinguisher, eye wash, MSDS, etc. available on-site.<br>• Hazardous material containers must be in good condition.<br>• All hazardous materials must be compatible with containers.<br>• Hazardous materials containers are kept closed.<br>• 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.<br>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.<br>• Discharge or spill of hazardous substance;<br>• If an Environmental Regulator visits the site;<br>• Visually cloudy/muddy water is observed leaving the work area;<br>• An underground storage tank is discovered; or<br>• A subsurface component related to site remediation activities (e.g., monitoring well, recovery well, injection well) is discovered. No subsurface components may be impacted.<br>• 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 |

| Table 3-11: PG&E Best Management Practices (BMPs) and Field Protocols (FPs) | |
|---|---|
| **BMP or FP Number** | **Description** |
| | impacts to public safety and the environment, place contaminated soil on a polyethylene sheet (4 ml) and cover or place the contaminated soil in lined covered containers. Then contact your local/support EFS to determine the next steps.<br>• 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 Proposed 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 Proposed Project EFS for additional guidance in these areas.<br><br><u>Management of Undamaged (Intact) Batteries – Universal Waste</u>:<br>• 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.<br>o Note: It is recommended that large station backup batteries are better shipped directly from the substation to a disposal facility rather then taken to a PG&E waste consolidation site. Coordinate with the local EFS for disposal.<br>• Reference ENV 4000P-05-JA05 for general information, proper labeling, transportation, storage, and accumulation time limit.<br><br><u>Management of Damaged or Leaking Batteries – Hazardous Waste:</u><br>• 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).<br>• 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.<br>• Reference ENV 4000P-05-JA05 for general information, proper labeling, transportation, storage, and accumulation time limit. Transportation – Reference ENV 4000P-05-JA05.<br>• 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. |

| Table 3-11: PG&E Best Management Practices (BMPs) and Field Protocols (FPs) | |
|---|---|
| **BMP or FP Number** | **Description** |
| | • Transporting ≤ 10 pounds 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, 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 Proposed Project team has safety concerns prior to or during the Proposed Project, immediately contact the Safety Program Consultant. |
| **BMP HAZ-6** | **$SF_6$ 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.<br>• Contact information: https://www.advancedspecialtygases.com.<br>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.<br>• The Planning Section Chief (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 Environmental Protection Agency [EPA] identification number).<br>• $SF_6$ 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 SPCC include:<br>• New storage of oil at a facility causing the total oil storage to exceed 1,320 gallons.<br>• Modification to existing oil storage at a facility that contains >1,320 gallons of oil by addition or removal of oil containers >55 gallons.<br>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 |

| Table 3-11: PG&E Best Management Practices (BMPs) and Field Protocols (FPs) | |
|---|---|
| **BMP or FP Number** | **Description** |
| | 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 Proposed Project shall require an SWPPP. If the construction crew will not be installing stormwater BMPs, it is the responsibility of the Proposed 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/ Proposed 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/ Proposed Project EFS throughout the duration of the Proposed Project. |
| **BMP HAZ-12** | **Skyline Terminal Site SMP**. PG&E construction activities that occur on the proposed Skyline terminal property will comply with the Site Management Plan (SMP) that was prepared as part of the Covenant for the property. |

# 4.0 DESCRIPTION OF ALTERNATIVES

This section of the Proponent's Environmental Assessment (PEA) describes the Alternatives considered to date by the Power Santa Clara Valley Project ("Proposed Project") team. LS Power Grid California, LLC ("LS Power") is sponsoring the Proposed Project in response to a competitive solicitation conducted by the California Independent System Operator (CAISO).

In its 2021-2022 Transmission Planning Process (TPP), 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, 2023). CAISO's analysis, conducted through an open and stakeholder-inclusive planning process, led to the identification of the need for the Proposed Project (referred to in CAISO documents as the "Metcalf to San Jose B HVDC Project") as part of a comprehensive solution (relying in part on other upgrades to meet reliability needs notwithstanding state policy objectives) to mitigate current and forecasted overloads in the San José area (CAISO, 2022).

As part of the CAISO competitive solicitation for the Proposed Project, Functional Specifications (CAISO, 2022) were included within the 2021-2022 Transmission Plan that define the minimum project parameters from a technical standpoint. These Functional Specifications are key to consideration of alternatives for the Proposed Project. The Functional Specifications include key design parameters for the Proposed Project, such as the use of direct current (DC) instead of alternating current (AC) for the Proposed Project's primary transmission line. As part of the Functional Specifications development, CAISO performed detailed system analysis in order to identify the best solution (i.e., best project). Therefore, because CAISO effectively performed an alternatives analysis as part of the TPP and Functional Specifications development for the Proposed Project, this PEA does not consider certain types of alternatives that would not meet the Functional Specifications. These alternatives and alternative types, many of which are commonly required for projects under consideration by the California Public Utilities Commission (CPUC), are described in **Section 4.3**, *Rejected Alternatives* below. As further described in **Section 4.1**, *Alternatives Considered*, this PEA focuses on terminal site and transmission line route alternatives.

## 4.1 ALTERNATIVES CONSIDERED

As described above, consideration of alternatives for the Proposed Project centered on achieving the Functional Specifications. Alternatives and alternative types, such as system alternatives, are not considered herein because they do not meet the Functional Specifications. These are grouped into the following alternative types, which are focused on transmission line routes and high-voltage direct current (HVDC) terminal sites:

- Grove Terminal Site Alternatives
- Skyline Terminal Site Alternatives
- Grove to Skyline 320 kilovolt (kV) DC Transmission Line Route Alternatives
- Metcalf to Grove 500 kV AC Transmission Line Route Alternatives

### 4.1.1 GROVE TERMINAL SITE ALTERNATIVES

#### 4.1.1.1 Alternative Grove 1

Alternative Grove 1 proposes the southern HVDC terminal portion of the Proposed Project be constructed on a site just north of Bailey Avenue at the intersection of Monterey Road, approximately 1.2 miles southeast of the existing Metcalf substation (refer to **Figure 4-1**, *Grove Terminal Alternative Sites Map*). The size of the property would be sufficient for the needs of the Proposed Project, at approximately 8.5 acres; however, the long, narrow shape of the Alternative Grove 1 site would make the design and construction of the HVDC terminal challenging. Hence, Alternative Grove 1 would allow for less design and construction efficiencies, potentially leading to additional environmental impacts. In addition, the Peninsula Open Space Trust (POST) identified potential interference with a proposed wildlife overpass.

The site is currently undeveloped grass lands with busy roadways on the southwest and southeast sides. To the northwest is agricultural land, and Coyote Creek is to the northeast. The Alternative Grove 1 property is also further away from the existing Metcalf substation, requiring longer 500 kV AC and 320 kV DC transmission lines, both of which would increase temporary and permanent environmental impacts when compared to the Proposed Project Grove terminal site (refer to **Section 6.0**, *Comparison of Alternatives*).

#### 4.1.1.2 Alternative Grove 2

Alternative Grove 2 proposes the southern HVDC terminal portion of the Proposed Project be constructed on a site located just south of the proposed Grove terminal site. The Alternative Grove 2 site is located approximately 0.9 mile southeast of the existing Metcalf substation (refer to **Figure 4-1**). The size of the property, at approximately 14.3 acres, and its dimensions would be sufficient for the needs of the Proposed Project. The site is currently occupied by residential and agricultural land uses. The proposed Grove terminal site (currently an orchard) is located immediately to the northwest, Coyote Creek and Coyote Creek Trail are located to the northeast, similar residential/agricultural uses are located to the southeast, and Monterey Road is located to the southwest. The Alternative Grove 2 property is located slightly further away from the existing Metcalf substation, requiring a slightly longer 500 kV AC and 320 kV DC transmission line, both of which would increase temporary and permanent environmental impacts when compared to the Proposed Project Grove terminal site.

#### 4.1.1.3 Alternative Grove 3

Alternative Grove 3 proposes the southern HVDC terminal portion of the Proposed Project be constructed on Pacific Gas and Electric Company (PG&E) property directly northwest of the existing Metcalf substation (refer to **Figure 4-1**). The Alternative Grove 3 site is approximately 9.3 acres, and its dimensions would be sufficient for the needs of the Proposed Project. The Alternative Grove 3 site is currently a developed area consisting of laydown yards/areas, parking lots, and a warehouse. The existing Metcalf substation is directly to the east and southeast, Coyote Creek and Coyote Creek Trail are located to the southwest, and Metcalf Road is to the northwest.

#### 4.1.1.4 Alternative Grove 4

Alternative Grove 4 proposes the southern HVDC terminal portion of the Proposed Project be constructed on a site located northwest of the proposed Grove terminal site near the existing Metcalf Energy Center (refer to **Figure 4-1**). The size of the property, at approximately 15.7 acres, and its dimensions would be sufficient for the needs of the Proposed Project. The site is currently a mostly developed area occupied by residential and RV storage uses. The Metcalf Energy Center is located to the north, parking and access for the Metcalf Energy Center as well as railroad tracks are located to the east, North Coyote Valley Conservation Area is located to the south, and Fisher Creek and the Tulare Hill Ecological Preserve are located to the west. The 500 kV AC and 320 kV DC transmission lines would require trenchless crossings (e.g., jack-and-bore or horizontal directional drill [HDD]) of the existing railroad to reach the Alternative Grove 4 property.

### 4.1.2 SKYLINE TERMINAL ALTERNATIVE SITES

#### 4.1.2.1 Alternative Skyline 1

Alternative Skyline 1 proposes the use of the lot abutting the historic San Jose Water Company building at 374 West Santa Clara Street on the west and south that is currently developed as a parking lot. The site is approximately 0.6 mile south of the existing San Jose B substation (see **Figure 4-2**, *Skyline Terminal Alternative Sites Map*). In addition to the historic San Jose Water Company building, West Santa Clara Street, Delmas Avenue, West San Fernando Street, and State Route (SR)-87 are to the north, west, south, and east, respectively. The location of the site would require two additional transmission line crossings of the Guadalupe River and a significantly longer 115 kV interconnection to the existing San Jose B substation as compared to the Proposed Project. While the shape of the lot would be functional for design, the site is only approximately 4.2 acres in size. A preferred site would be over seven acres to allow for a little on-site construction staging and work area buffers, which would make the design and construction of the HVDC terminal extremely challenging at the Alternative Skyline 1 site. The site is also part of Google's proposed Downtown West development, which is revamping the historic San Jose Water Company building into a new community center.

#### 4.1.2.2 Alternative Skyline 2

Alternative Skyline 2 proposes the use of the lot located approximately 0.75 mile south of the existing San Jose B substation (refer to **Figure 4-2**). The buildings on site were recently demolished as part of Google's proposed Downtown West development. To the west are railroad tracks and railyards of the San José train station. Park Avenue and South Montgomery Street are to the south and east, respectively. The location of the site would require two additional transmission line crossings of the Guadalupe River and a significantly longer 115 kV interconnection to the existing San Jose B substation as compared to the Proposed Project. While the shape of the lot would be functional for the design, it is only approximately 5.3 acres in size. A preferred site would be over seven acres to allow for a little on-site construction staging and work area buffers; therefore, the Alternative Skyline 2 site would present construction challenges. The site is also part of Google's proposed Downtown West development.

### 4.1.3 GROVE TO SKYLINE 320 KV DC TRANSMISSION LINE ROUTE ALTERNATIVES

#### 4.1.3.1 Southern Segment Alternative 1

The Southern Segment Alternative 1 would first leave the proposed Grove terminal overhead southeast around the existing water feature, then turn northeast across U.S. Route 101, and then head in a generally northwest direction, paralleling U.S. Route 101 and existing PG&E overhead transmission lines (refer to **Figure 4-3**, *320 kV DC Transmission Line Routing Study Area* and **Figure 4-4**, *Grove to Skyline 320 kV DC Transmission Line Alternatives Map*). After approximately six miles, the alignment would turn westerly and remain overhead for approximately 0.25 mile to cross Coyote Creek before transitioning underground near Coyote Road. The Southern Segment Alternative 1 would then continue west underground within Coyote Road and Senter Road for approximately 2.1 miles before reaching Monterey Road, where it would turn north and align with the Proposed Project's Grove to Skyline 320 kV DC transmission line alignment. The total length of the Southern Segment Alternative 1 would be approximately 14 miles (approximately six miles overhead and eight miles underground), extending from the proposed Grove terminal to the proposed Skyline terminal.

Southern Segment Alternative 1 would be surrounded by mainly undeveloped land, including County park land, conservation easements, and transmission lines for the overhead segment, and residential, commercial, and industrial for the underground portion.

#### 4.1.3.2 Southern Segment Alternative 2

The Southern Segment Alternative 2 would be identical to Southern Segment Alternative 1 for the first approximately six miles (refer to **Figure 4-4**). However, Southern Segment Alternative 2 would continue overhead, in a generally northern direction, for an additional approximately 2.3 miles. After approximately 8.4 miles total overhead, the alignment would transition to underground at East Capitol Expressway. It would then turn southwest for approximately 0.4 mile until reaching Senter Road, where the alignment would turn northwest, remaining underground. The alignment would follow Senter Road generally northwest for approximately 2.8 miles, before turning southwest on Keyes Street for approximately 0.2 mile. The Southern Segment Alternative 2 would then continue northwest underground within South 10$^{th}$ Street for 0.6 mile, before turning southwest in East Reed Street. The alignment would follow East Reed Street. At this point, Southern Segment Alternative 2 would connect with one of the Downtown San José Alternative routes discussed below. The total length of the Southern Segment Alternative 2 would be approximately 13 miles (approximately 8.4 miles overhead and 4.6 miles underground), extending from the proposed Grove terminal to the intersection of East Reed Street and South Market Street.

Southern Segment Alternative 2 would be surrounded by mainly undeveloped land, including County park land and conservation easements, along with some residential, open space, commercial, and municipal land uses for the overhead segment, and then mainly residential, commercial, and industrial for the underground portion.

#### 4.1.3.3 Northern Segment Alternative 1

The Northern Segment Alternative 1 would be identical to the overhead Southern Segment Alternative 2 alignment from the proposed Grove terminal north to East Capitol Expressway (approximately 8.3 miles). However, Northern Segment Alternative 1 would continue overhead,

in a generally northern direction, for an additional 1.3 miles over East Capitol Expressway, over Coyote Creek, through the Los Lagos Golf Course, then paralleling Coyote Creek until reaching Tully Road (refer to **Figure 4-4**). The transmission line would transition to underground, then follow Tully Road southwest for approximately 0.3 mile, then follow Senter Road generally northwest for 1.5 miles until reaching Keyes Street. Northern Segment Alternative 1 would then follow Keyes Street southwest for approximately 0.2 mile, then northwest on South 10th Street for approximately 0.7 mile until reaching East William Street. The route would then follow East William Street northeast for approximately 0.1 mile, then back northwest on South 11th Street for one mile until reaching East Julian Street. Northern Segment Alternative 1 would follow South Julian Street for approximately 0.7 mile southwest, then follow North First Street northwest for approximately 0.2 mile before turning southwest on Fox Avenue. The final 0.4-mile leg of the route would follow Fox Avenue, North San Pedro Street, and finally Ryland Street before entering the proposed Skyline terminal site from the north.

The total length of the Northern Segment Alternative 1 would be approximately 14.9 miles (approximately 9.75 miles overhead and 5.1 miles underground), extending from the proposed Grove terminal to the proposed Skyline terminal.

Northern Segment Alternative 1, after diverging from Southern Segment Alternative 2, would be surrounded by mainly residential, open space, recreational, commercial, and municipal land uses for the overhead segment; and then mainly residential, commercial, and industrial for the underground portion.

#### 4.1.3.4 Downtown San José Alternatives

The Downtown San José area is characterized by numerous roadways, parks, businesses, and proposed developments. In addition, existing utilities encumber a large portion of the streets in the Downtown San José area. Detailed utility surveys may ultimately determine that it is not feasible to route the Grove to Skyline 320 kV DC transmission line in some streets in Downtown San José. Hence, LS Power considered a number of routing alternatives for the Grove to Skyline 320 kV DC transmission line from the Interstate (I)-280 underpass for First Street to the proposed Skyline terminal.

**Downtown San José Alternative 1**

Downtown San José Alternative 1 begins at the I-280 underpass for First Street and then turns onto West Reed Street for approximately 0.3 mile before turning north on Almaden Boulevard. Downtown San José Alternative 1 continues north on Almaden Boulevard for approximately one mile, including a crossing underneath SR-87. Downtown San José Alternative 1 would then cross Julian Street and enter the parking lot of a private property leased to the County of Santa Clara. Downtown San José Alternative 1 would travel through the private parking lot for approximately 0.2 mile before aligning with the Proposed Project's Grove to Skyline 320 kV DC transmission line alignment for the last approximately 0.05 mile (refer to **Figure 4-4**). Downtown San José Alternative 1 is proposed to be completely underground and is approximately 1.6 miles in length from the I-280 underpass for First Street to the proposed Skyline terminal. Downtown San José Alternative 1 would be surrounded by mainly residential and commercial land uses.

**Downtown San José Alternative 2**

Downtown San José Alternative 2 begins at the I-280 underpass for First Street and then turns onto West Reed Street for approximately 0.3 mile before turning north on Almaden Boulevard. Downtown San José Alternative 2 continues north on Almaden Boulevard for approximately 0.7 mile. Downtown San José Alternative 2 would then follow Notre Dame Avenue north for approximately 0.15 mile, West Saint John Street east for approximately 0.05 mile, and Terraine Street north for approximately 0.3 mile. Downtown San José Alternative 2 would turn west onto Bassett Street and align with the Proposed Project's Grove to Skyline 320 kV DC transmission line alignment for the last approximately 0.15 mile (refer to **Figure 4-4**). The route is proposed to be completely underground and is approximately 1.7 miles in length from the I-280 underpass for First Street to the proposed Skyline terminal. Downtown San José Alternative 2 would be surrounded by mainly residential and commercial land uses.

**Downtown San José Alternative 3**

Downtown San José Alternative 3 begins at the I-280 underpass for First Street and aligns with the Proposed Project's Grove to Skyline 320 kV DC transmission line alignment within First Street and Market Street for the first approximately 0.7 mile. Downtown San José Alternative 3 would then follow Post Street west for approximately 0.1 mile. Downtown San José Alternative 3 would then turn north on South Almaden Avenue and continue north on Terraine Street for approximately 0.5 mile. Downtown San José Alternative 3 would turn west onto Bassett Street and align with the Proposed Project's Grove to Skyline 320 kV DC transmission line alignment for the last approximately 0.15 mile (refer to **Figure 4-4**). The route is proposed to be completely underground and is approximately 1.5 miles in length from the I-280 underpass for First Street to the proposed Skyline terminal. Downtown San José Alternative 3 would be surrounded by mainly residential and commercial land uses.

**Downtown San José Alternative 4**

Downtown San José Alternative 4 begins at the I-280 underpass for First Street and aligns with the Proposed Project's Grove to Skyline 320 kV DC transmission line alignment within First Street and Market Street for the first approximately 1.0 mile. Downtown San José Alternative 4 would then follow West Saint James Street west for approximately 0.05 mile and then turn north on the current and former North San Pedro Street for approximately 0.2 mile. The City of San José is converting the northern approximately 0.1 mile of North San Pedro Street into the Elizabeth P. Boyer Park which is envisioned as an outdoor living room park. After departing from Elizabeth P. Boyer Park, Downtown San José Alternative 4 would turn west onto Bassett Street and align with the Proposed Project's Grove to Skyline 320 kV DC transmission line alignment for the last approximately 0.25 mile (refer to **Figure 4-4**). The route is proposed to be completely underground and is approximately 1.5 miles in length from the I-280 underpass for First Street to the proposed Skyline terminal. Downtown San José Alternative 4 would be surrounded by mainly residential and commercial land uses.

### 4.1.4 METCALF TO GROVE 500 KV AC TRANSMISSION LINE ROUTE ALTERNATIVES

#### 4.1.4.1 Metcalf to Grove Transmission Line Alternative 1

Metcalf to Grove Transmission Line Alternative 1 would exit the proposed Grove terminal northeast, then follow Coyote Creek Trail until reaching Coyote Creek. It would cross over Coyote Creek by way of a newly constructed pedestrian bridge for Coyote Creek Trail in which the transmission line would be attached to the pedestrian bridge. The alignment would then continue underground within Coyote Ranch Road along the same alignment as Metcalf to Grove Transmission Line Alternative 1 (see **Figure 4-5**, *Metcalf to Grove 500 kV AC Transmission Line Alternatives Map*). Metcalf to Grove Transmission Line Alternative 1 would be approximately 1.2 miles in length and would be located underground except for the bridge crossing of Coyote Creek.

Metcalf to Grove Transmission Line Alternative 1 would be surrounded by open space, agricultural, residential, and industrial land uses, Coyote Creek, Coyote Creek Trail, Coyote Ranch Road, and the Metcalf substation.

#### 4.1.4.2 Metcalf to Grove Transmission Line Alternative 2

Metcalf to Grove Transmission Line Alternative 2 would exit the proposed Grove terminal southwest, then follow Monterey Road for approximately 0.4 mile before turning northeast (refer to **Figure 4-5**). It would cross over Coyote Creek by way of a newly constructed vehicular bridge for Coyote Ranch Road in which the transmission line would be attached to the vehicular bridge. The vehicular bridge would replace the existing failing culverts within the main and secondary Coyote Creek channels. The alignment would then continue underground within Coyote Ranch Road until reaching the existing Metcalf substation modification area (refer to **Figure 4-5)**. Metcalf to Grove Transmission Line Alternative 2 would be approximately 1.3 miles in length and would be located entirely underground except for the bridge crossing of Coyote Creek.

Metcalf to Grove Transmission Line Alternative 2 would be surrounded by open space, agricultural and residential land uses, rail lines, industrial development, Coyote Creek, Coyote Creek Trail, and the Metcalf substation.

#### 4.1.4.3 Metcalf to Grove Transmission Line Alternative 3

Metcalf to Grove Transmission Line Alternative 3 would exit the proposed Grove terminal southwest, then follow Monterey Road for approximately 0.5 mile before turning northeast (refer to **Figure 4-5**). The transmission line would cross under Coyote Creek, utilizing an approximately 500-foot-long HDD. The HDD would also traverse under the Coyote Creek Trail, which parallels the creek at this location. After the HDD, the alignment would continue underground through undeveloped open space for approximately 250 feet until reaching Coyote Ranch Road. The alignment would then continue underground within Coyote Ranch Road until reaching the existing Metcalf substation modification area (refer to **Figure 4-5)**. Metcalf to Grove Transmission Line Alternative 3 would be approximately 1.3 miles in length and would be located entirely underground.

Metcalf to Grove Transmission Line Alternative 3 would be surrounded by open space, agricultural and residential land uses, rail lines, industrial development, Coyote Creek, Coyote Creek Trail, and the Metcalf substation.

#### 4.1.4.4 Metcalf to Grove Transmission Line Alternative 4

Metcalf to Grove Transmission Line Alternative 4 would exit the proposed Grove terminal southwest, then follow Monterey Road for approximately one mile before turning northeast (refer to **Figure 4-5**). The transmission line would cross Coyote Creek and enter the existing Metcalf substation overhead, utilizing a new transmission structure on the west side of Coyote Creek and PG&E's new dead-end structure planned within the existing Metcalf substation modification area. The length of the overhead segment would be approximately 400 feet. The overhead segment would cross over Coyote Creek Trail as well as Coyote Ranch Road, before reaching the existing Metcalf substation modification area (refer to **Figure 4-5**). Metcalf to Grove Transmission Line Alternative 4 would be approximately 1.15 miles in length and would be located entirely underground, except for the final 400 feet across Coyote Creek and into the existing Metcalf substation. In addition, the underground alignment within Monterey Road would require an approximately 600-foot-long HDD under Fisher Creek.

Metcalf to Grove Transmission Line Alternative 4 would be surrounded by open space, agricultural and residential land uses, rail lines, industrial development, Coyote Creek, Coyote Creek Trail, and the Metcalf substation.

#### 4.1.4.5 Metcalf to Grove Transmission Line Alternative 5

Metcalf to Grove Transmission Line Alternative 5 would exit the proposed Grove terminal southwest, then follow Monterey Road for approximately 1.3 miles before turning 180 degrees and crossing under Coyote Creek via HDD in a southeast direction (refer to **Figure 4-5**). The HDD would be approximately 500 feet in length and would also cross under Metcalf Road. Following the HDD, the alignment would continue underground through undeveloped open space and across Coyote Creek Trail for approximately 250 feet until reaching Coyote Ranch Road. The alignment would then continue underground within Coyote Ranch Road until reaching the existing Metcalf substation modification area (refer to **Figure 4-5**). Metcalf to Grove Transmission Line Alternative 5 would be approximately 1.6 miles in length and would be located entirely underground. In addition, the underground alignment within Monterey Road would require an approximately 600-foot-long HDD under Fisher Creek.

Metcalf to Grove Transmission Line Alternative 5 would be surrounded by open space, agricultural and residential land uses, rail lines, industrial development, Coyote Creek, Coyote Creek Trail, Metcalf Road, and the Metcalf substation.

### 4.1.5 TECHNOLOGY ALTERNATIVES

#### 4.1.5.1 Technology Alternative 1 – Overhead versus Underground

The Proposed Project could utilize overhead or underground transmission lines. However, the Alternatives Study Area (refer to **Figure 4-3**) is highly developed and urbanized between the two end points defined by CAISO, which precludes reasonable overhead options for much of the alignment. Additionally, underground cables placed in public road rights-of-way would require only temporary construction impacts with negligible aesthetic impacts over the life of the Proposed Project operations.

## 4.2 NO PROJECT ALTERNATIVE

As required by the CPUC PEA Guidelines, the No Project Alternative is discussed herein, consistent with California Environmental Quality Act (CEQA) Guidelines Section 15126.6(e). The purpose of the No Project Alternative is to provide the decision maker with the opportunity to compare the impacts of a proposed project with the potential impacts of not approving the project. Based on CEQA and PEA Guidelines, this section of the PEA describes what potential actions may be required, based on the existing conditions of the California Electrical Grid, the Greater Bay Area planning area, and the South Bay sub-area. As stated above and in **Sections 2.0**, *Introduction* and **3.0**, *Proposed Project Description* of the PEA, the Proposed Project has been designed to achieve the Functional Specifications, which were developed by CAISO in order to fill the transmission planning forecast. Therefore, the No Project Alternative would not meet the Proposed Project objectives.

## 4.3 REJECTED ALTERNATIVES

### 4.3.1 TRANSMISSION LINE ALTERNATIVES

#### 4.3.1.1 Transmission Line Alternative 1 – Alternating Current Transmission Line

A transmission line between the existing Metcalf and San Jose B substations could theoretically be either an AC or DC transmission line. However, an AC transmission line between the existing Metcalf and San Jose B substations would not meet the need defined by CAISO for the Proposed Project in the Functional Specifications. The Proposed Project's DC transmission line would also provide additional operational controllability compared to an AC transmission line, allowing for better utilization of the electrical grid without overloads. Additionally, the proposed HVDC terminals' reactive power output would support the regional transmission system by providing voltage support to the electrical grid in the vicinity of the HVDC terminals. Finally, the DC transmission line would have a reduced impact on nearby utilities from an induced current perspective. It would also have a smaller footprint compared to a similar AC transmission line since the DC transmission line would have two conductors while an AC transmission line requires three conductors, thereby requiring larger duct banks and splice vaults.

# 5.0 ENVIRONMENTAL ANALYSIS

## 5.1 AESTHETICS

| Except as provided in Public Resources Code Section 21099, would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Have a substantial adverse effect on a scenic vista? | | | X | |
| b. | Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | | | X | |
| c. | In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | | | X | |
| d. | Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | | | X | |

This section describes the aesthetics within the vicinity of the Proposed Project as well as potential impacts that could result from construction and operation and maintenance (O&M) of the Proposed Project.

### 5.1.1 ENVIRONMENTAL SETTING

The Proposed Project is located in the County of Santa Clara within the southern portion of the City of San José. The proposed Skyline terminal site is located in downtown San José, immediately south of the existing Pacific Gas and Electric Company (PG&E) San Jose B substation and surrounded by State Route (SR)-87 to the east, downtown office and commercial uses to the south, and the Guadalupe River to the west. The visual character of the proposed Skyline terminal site is defined by the surrounding commercial industrial uses, riparian and woodland vegetation associated with the Guadalupe River, and downtown San José structures, including tall structures consisting of various materials such as metal and glass. The proposed underground Grove to Skyline 320 kilovolt (kV) direct current (DC) transmission line would connect to the proposed Skyline terminal and span approximately 13 miles south through urban development and public road right-of-way to the proposed Grove terminal site. The proposed Grove terminal site is located approximately 0.65 mile south of the existing PG&E Metcalf substation within Coyote Valley. Land uses in the vicinity of the proposed Grove terminal site consist of agricultural uses, vacant land, utility uses, residential, commercial uses, open space/park/recreation, and Coyote Creek. The visual character of the proposed Grove terminal site is defined by its surrounding agricultural uses, which consist of an existing orchard

surrounded by grasses, ornamental trees and bushes, and small residential and agricultural support structures, with the backdrop of the Diablo Mountain Range.

#### 5.1.1.1 Landscape Setting

The Proposed Project site is located in the northwestern area of downtown San José and crosses south/southeasterly through the City and into unincorporated areas of the County of Santa Clara, approximately 12 miles southeast of downtown San José. Elevations within the Proposed Project site range from 75 to 250 feet above sea level.

The Diablo Mountain Range rises above the valley floor, approximately five miles northeast of the proposed Skyline terminal site and two miles northeast of the proposed Grove terminal site. The Santa Cruz Mountains rise to the southwest of the valley floor, approximately 10 miles southwest of the proposed Skyline terminal and three miles southwest of the proposed Grove terminal. These mountains consist of gently sloping alluvial plains ranging up to 3,800 feet in the surrounding peaks. On clear days, when distant landscape elements are discernible, a number of the higher peaks and mountains of the Diablo and Santa Cruz Ranges are visible from some places in the general area.

Commercial, residential, roadway, railroad tracks, and park space surround the proposed Skyline terminal site. Various architectural styles are featured in the existing San Jose B substation vicinity along with large park spaces, the Guadalupe River trail, and the Guadalupe River. Commercial agriculture has long been the dominant land use in the proposed Grove terminal site area, served by U.S. Route 101 and Monterey Road. Agricultural fields and facilities, such as orchards, are characteristic features in the Proposed Project area while numerous creeks and water ways traverse the landscape, including the Coyote Alamitos Canal and the Coyote Creek which run from southeast to northwest within 300 feet of the proposed Grove terminal.

The proposed Grove to Skyline 320 kV DC transmission line would be located underground along commercial, residential, industrial, open space/park/recreation, public/institutional, agriculture, roads, and undeveloped land. To the east of the proposed Skyline terminal site is SR-87, which intersects Interstate (I)-280 approximately one-mile southeast of the proposed Skyline terminal. The majority of the Proposed Project would be located within Monterey Road, which turns into First Street, which turns into Market Street. The proposed underground Grove to Skyline 320 kV DC transmission line crosses both SR-87 and I-280 along with several arterial roads, including Santa Clara Street, San Carlos, Alma Avenue, Curtner Avenue/Tully Road, East Capitol Expressway, Blossom Hill Road, and Bernal Road.

#### 5.1.1.2 Scenic Resources

Scenic resources generally can include designated vistas, scenic highways, or national scenic areas, as well as historic structures, trees, or other resources that contribute to the scenic values of an area (California Public Utilities Commission [CPUC], 2019). Planning documents prepared by local agencies often identify scenic resources within the agency's jurisdiction, and California Department of Transportation ("Caltrans") and the U.S. Department of Transportation (USDOT) Federal Highway Administrative (FHWA) identify state and national scenic highways. For the Proposed Project, the County of Santa Clara General Plan (1994), the City of San José General Plan (2024), the USDOT FHA scenic byways map (2021), the California State Scenic Highway System (Caltrans, 2023), and the National Historic Landmark Registry (National Park Service, 2023) were reviewed for designated or eligible scenic resources within five miles of the Proposed

Project area. Identified scenic resources within five miles of the Proposed Project are listed in **Table 5.1-1**, *Scenic Resources*. **Figure 5.1-1**, *Scenic Resources Map* illustrates the location of each identified scenic resource.

**Table 5.1-1: Scenic Resources**

| Scenic Resource | Description |
|---|---|
| Silver Creek Valley Road | City of San José-designated rural scenic corridor |
| South Valley Freeway | City of San José-designated rural scenic corridor |
| Bailey Avenue | City of San José-designated rural scenic corridor |
| Metcalf Road | City of San José-designated rural scenic corridor |
| Yerba Buena Road | City of San José-designated rural scenic corridor |
| Penitencia Creek Road | City of San José-designated rural scenic corridor |
| McKean Road | City of San José-designated rural scenic corridor |
| Casa Loma Road | City of San José-designated rural scenic corridor |
| Almaden Road | City of San José-designated rural scenic corridor |
| U.S. Route 101 | City of San José-designated rural scenic corridor; City of San José-designated urban corridor; County of Santa Clara-designated scenic highway |
| I-280 | City of San José-designated urban corridor; State eligible scenic highway |
| I-880 | City of San José-designated urban corridor |
| SR-87 | City of San José-designated urban corridor |
| SR-85 | City of San José-designated urban corridor |
| I-680 | City of San José-designated urban corridor |
| Our Lady of Guadalupe Mission Chapel | National historic landmark |
| 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 |
| Guadalupe River Park | City of San José park |
| Guadalupe River Trail | City of San José trail |
| Ryland Parkway | City of San José park |
| Ryland Parkway Trail | City of San José trail |
| Coyote Creek Parkway | County of Santa Clara park |
| Coyote Creek Trail | County of Santa Clara trail |
| Montague Expressway at I-880 | City of San José gateway |
| Charcot Avenue at I-880 | City of San José gateway |
| Charcot Avenue at Orchard Parkway | City of San José gateway |
| North First Street at Charcot Avenue | City of San José gateway |
| North First Street at I-880 | City of San José gateway |
| Berryessa Road at I-680 | City of San José gateway |
| Skyport Drive at SR-87 | City of San José gateway |

| Table 5.1-1: Scenic Resources | |
|---|---|
| **Scenic Resource** | **Description** |
| 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 |
| East Capitol Expressway at I-680 | City of San José gateway |
| East Santa Clara Street at U.S. Route 101 | City of San José gateway |
| South First Street at I-280 | City of San José gateway |
| Bird Avenue at I-280 | City of San José gateway |
| Stevens Creek Boulevard at I-880 | City of San José gateway |
| Saratoga Avenue at I-280 | City of San José gateway |
| Tully Road at U.S. Route 101 | City of San José gateway |
| Almaden Expressway at SR-87 | City of San José gateway |
| East Capitol Expressway at U.S. Route 101 | City of San José gateway |
| Blossom Hill Road at SR-85 | City of San José gateway |
| SR-85 at U.S. Route 101 | City of San José gateway |
| Monterey Road at Metcalf Road | City of San José gateway |
| Metcalf Road at U.S. Route 101 | City of San José gateway |

The City of San José General Plan states that scenic resources within the City include the Santa Clara Valley, the hills and mountains which frame the valley floor, the baylands, and the urban skyline itself, including high-rise development. Several specific locations are identified as having particularly significant views of the Santa Clara Valley and mountains, including Coyote Valley, within which the Proposed Project is located. In addition, the City identifies three types of scenic routes that contribute to the overall image of San José (City of San José, 2016): 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 are locations that announce to a visitor or resident that they are entering the City or a unique neighborhood.

The County of Santa Clara General Plan includes a series of strategies, policies, and implementation guidelines for preserving and enhancing the scenic values and resources within the County. While there is no specific definition of scenic resources, the General Plan indicates that areas worthy of protection include rural unincorporated areas, hillsides, ranchlands, coastal mountain ranges, evergreen forests and oak chaparral areas, rivers and streams, wetlands, and more urban resources such as parks and architecture of distinction. Coyote Valley is specifically called out for its scenic qualities. The General Plan also identifies a Scenic Road System, which consists of all present and proposed state scenic routes within the County and County scenic routes. County scenic routes include scenic freeways and expressways, scenic arterial routes, and scenic rural roads. In addition to the Scenic Road System, local roads requiring scenic protection are included.

In addition to the scenic resources identified by the maps and plans mentioned above, there are a number of parks and trails in the surrounding area. The parks and trails that are adjacent to the proposed terminal sites are included in **Table 5.1-1** and analyzed in this section. **Section 5.16**,

*Recreation* provides additional information on the parks and trails within a 0.5-mile buffer of the Proposed Project.

### 5.1.1.3 Viewshed Analysis

For purposes of describing the Proposed Project's visual setting and assessing potential visual impacts, the viewshed has been broken down into foreground, middle ground, and background distance zones. Background views extend to the visual horizon, which is approximately five miles from the Proposed Project site; therefore, an analysis of the visual impact using a five-mile buffer was created. The foreground is defined as the zone within 0.25 to 0.5 mile of the viewer. Landscape detail is noticeable; objects are most prominent when seen in the foreground. The middle ground can be defined as the zone that extends from the foreground up to three to five miles from the viewer. The background extends from approximately three to five miles and beyond. **Figure 5.1-2**, *Viewshed Analysis and Landscape Units Map* provides buffers showing these distances.

The Proposed Project's viewshed is defined as the general area from which the Proposed Project is visible. Viewing distance is a key factor that affects the potential degree of the Proposed 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, analysis of the Proposed Project considers primarily the potential effects of the Proposed Project's elements on foreground viewshed conditions, although consideration is also given to middle ground and background views. The Proposed Project terminal sites would be visible from some nearby locations along public roads as well as nearby residential and commercial lots and nearby parks. In addition, construction of the underground transmission lines would be visible from residential, public recreation, open space, commercial, agricultural, and industrial areas.

### 5.1.1.4 Landscape Units

A set of three distinct landscape units have been identified for the purposes of documenting and describing the Proposed Project's foreground viewshed. **Table 5.1-2**, *Summary of Landscape Units* summarizes the landscape units identified within the Proposed Project's viewshed. **Figure 5.1-2** illustrates the locations on an aerial map.

**Table 5.1-2: Summary of Landscape Units**

| Landscape Unit (Approximate length/size) | Primary Affected Viewers | Representative Photograph Numbers |
|---|---|---|
| 1. Proposed Skyline terminal to I-280 (1.5 miles) | Motorists, residents | 1-7 |
| 2. I-280 to Coyote Creek Trail parking (9.75 miles) | Motorists, residents | N/A* |
| 3. Coyote Creek Trail Parking to proposed Grove terminal (2.1 miles) | Motorists | 8-16 |

*Landscape Unit 2 does not have any representative photographs because there would be no visible changes upon completion of the Proposed Project due to the transmission line being proposed underground in this area.

**Landscape Unit 1: Proposed Skyline Terminal to I-280**

Located in downtown San José, Landscape Unit 1 is the most urban part of the Proposed Project area. The unit includes segments of Bassett Street, Little Market Street, Market Street, and First Street which have a steady traffic flow and many commercial, residential, and public buildings. The residential units in this landscape unit are predominantly high-density apartment buildings. The proposed Skyline terminal is set back from the main roads in an industrial area, a short distance from the adjacent residential area.

**Landscape Unit 2: I-280 to Coyote Creek Trail Parking**

Landscape Unit 2 is located in the City of San José along First Street which becomes Monterey Road, running northwest to southeast. This unit runs through a predominately commercial corridor, surrounded by residential neighborhoods for approximately four miles. It then becomes a heavily residential area for 2.5 miles. The next approximately two miles mostly have commercial lots on the southwest side of the road and residential neighborhoods on the northeast side. Residential housing surrounds the remaining approximately one mile of the landscape unit. The residential zones in this landscape are generally all low-density, single-family homes. Commercial uses in this zone are intermittently mixed with industrial lots as well.

**Landscape Unit 3: Coyote Creek Trail Parking to Proposed Grove Terminal**

Landscape Unit 3 runs along Monterey Road through the outskirts of the City of San José and briefly through the Town of Coyote in unincorporated Santa Clara County. This unit travels through open fields, low rolling hills, and along lightly wooded creek beds. It also traverses past several industrial developments, including the existing Metcalf substation. The southernmost part of the unit traverses along agricultural fields and residential lots, although the houses are set back several hundred feet from the road.

### 5.1.1.5 Viewers and Viewer Sensitivity

Motorists represent the largest affected viewer group, consisting primarily of those traveling along SR-87 and Monterey Road. The closest residence is approximately 200 feet east of the proposed Skyline terminal on the other side of SR-87. The closest residence to the proposed Grove terminal is approximately 30 feet to the northwest in a rural area. Motorists include a variety of roadway travelers, both local and regional travelers who are familiar with the visual setting, and travelers using the roadway on a less regular basis, such as those seeking alternate routes. SR-87 has a speed limit of 65 miles per hour (mph); therefore, affected views are generally brief, typically lasting less than a few seconds depending on traffic volume. In addition, the speed limit on Monterey Road is 55 mph, with slightly longer yet similar viewing times as SR-87. In addition to residents and travelers, other potential viewers would be visitors to the nearby parks and trails. The proposed high-voltage direct current (HVDC) terminals would be most visible on the adjacent segments of the Guadalupe River Trail and the Coyote Creek Trail, which would be approximately 580 feet and 670 feet of the trails, respectively. Viewer sensitivity is considered moderate.

### 5.1.1.6 Representative Viewpoints

A total of 16 representative viewpoints (RVs) were selected at key locations throughout the Proposed Project area. These RVs represent a range of views of the Proposed Project area from major roads, trails, recreational areas, and other scenic resources. **Figure 5.1-3**, *Location of*

*Representative Viewpoints and Key Observation Points* illustrates the location of each RVs. High-resolution photographs were taken at each of the 16 RVs and are included in **Figures 5.1-3A** through **5.1-3P**. In addition to the 16 RVs, four additional locations were selected as key observation points (KOPs). These KOPs were selected based on the following criteria: the location is a designated scenic resource, trail, park, or major road; a view of the Proposed Project would be visible; and viewers at this location may be particularly sensitive to visual change. The location of each KOP is identified in **Figure 5.1-3**, and the photographs and visual simulations that were prepared at each are presented in **Figures 5.1-4** through **5.1-7**.

**Table 5.1-3**, *Summary of RVs and KOPs* provides the types of viewers, viewing direction, distance to the nearest Proposed Project feature, and the capture time and date of the photograph. A description of the existing visual conditions and visibility of the Proposed Project area as seen from the RV or KOP and shown in the representative photographs is described in the text below.

**Table 5.1-3: Summary of RVs and KOPs**

| RV or KOP | Corresponding Figure | Potentially Affected Viewer Type | Viewing Direction & Distance (to Nearest Proposed Project Feature) | Capture Time & Date |
|---|---|---|---|---|
| RV 1 | Figure 5.1-3A | Pedestrians, Motorists | Southeast – Approximately 560 feet northwest of proposed San Jose B substation upgrades | 8/29/2023 3:23 pm |
| RV 2 | Figure 5.1-3B | Pedestrians on Trail, Motorists | South – Approximately 110 feet north of proposed San Jose B substation upgrades | 8/29/2023 3:28 pm |
| RV 3 | Figure 5.1-3C | Pedestrians, Motorists | Southeast – Approximately 46 feet northwest of proposed San Jose B substation upgrades | 8/29/2023 3:18 pm |
| RV 4 | Figure 5.1-3D | Motorists, Pedestrians on Trail | Southeast – Approximately 145 feet northwest of proposed San Jose B substation upgrades | 8/29/2023 3:46 pm |
| RV 5 | Figure 5.1-3E | Motorists | Southwest – Approximately 20 feet east of proposed Skyline terminal | N/A[1] |
| RV 6 | Figure 5.1-3F | Pedestrians, Motorists | Northeast – Approximately 370 feet southwest of proposed Skyline terminal | 8/29/2023 3:57 pm |
| RV 7 | Figure 5.1-3G | Pedestrians, Motorists | Northwest – Approximately 45 feet southeast of proposed Grove to Skyline 320 kV DC transmission line | 8/30/2023 11:02 am |
| RV 8 | Figure 5.1-3H | Motorists | South – Approximately 180 feet north of proposed Staging Area 3 | 8/29/2023 1:13 pm |
| RV 9 | Figure 5.1-3I | Motorists | Southeast – Approximately 70 feet northwest of proposed Staging Area 3 | 8/29/2023 1:03 pm |

| Table 5.1-3: Summary of RVs and KOPs | | | | |
|---|---|---|---|---|
| **RV or KOP** | **Corresponding Figure** | **Potentially Affected Viewer Type** | **Viewing Direction & Distance (to Nearest Proposed Project Feature)** | **Capture Time & Date** |
| RV 10 | Figure 5.1-3J | Pedestrians on Trail | North – Approximately 40 feet southwest of proposed Metcalf to Grove 500 kV transmission line | 8/29/2023 1:33 pm |
| RV 11 | Figure 5.1-3K | Pedestrians, Motorists | East – Approximately 385 feet southeast of proposed Metcalf to Grove 500 kV transmission line | 8/30/2023 9:24 am |
| RV 12 | Figure 5.1-3L | Pedestrians, Motorists | South – Approximately 1,120 feet north of proposed Metcalf to Grove 500 kV transmission line | 8/30/2023 8:05 am |
| RV 13 | Figure 5.1-3M | Pedestrians on Trail | Southwest – Approximately 50 feet north of proposed Grove terminal | 8/30/2023 8:24 am |
| RV 14 | Figure 5.1-3N | Motorists | East – Approximately 40 feet west of proposed Grove terminal | 8/29/2023 2:09 pm |
| RV 15 | Figure 5.1-3O | Motorists | West – Approximately 1,750 feet east of proposed Grove terminal | 8/30/2023 10:31 am |
| RV 16 | Figure 5.1-3P | Motorists | North – Approximately 360 feet south of proposed Grove terminal | 8/29/2023 11:51 am |
| KOP 1 | Figure 5.1-4 | Pedestrians on Trail | Southeast – Approximately 140 feet northwest of proposed Skyline terminal | 8/29/2023 3:50 pm |
| KOP 2 | Figure 5.1-5 | Pedestrians, Motorists | South – Approximately 85 feet north of proposed San Jose B substation upgrades | 8/29/2023 3:35 pm |
| KOP 3 | Figure 5.1-6 | Pedestrians on Trail | West – Approximately 300 feet east of proposed Grove terminal | 8/30/2023 8:32 am |
| KOP 4 | Figure 5.1-7 | Motorists | North – Approximately 700 feet southwest of proposed Grove terminal | 8/29/2023 11:48 am |
| Notes:<br>[1] For safety reasons, high resolution photographs of the Proposed Project area are not possible from SR-87. Therefore, the photograph used for RV 5 is an image of Google Street View. | | | | |

As indicated by these photographs, views toward the Proposed Project site include varied levels of screening depending on the combination of roadways, buildings, and density of trees in the fore- and middle ground.

**Figure 5.1-3A**, *RV 1* shows a view from the parking lot of Guadalupe River Park looking southeast to the proposed Skyline terminal from either a motorist's or park-goer's perspective. The foreground shows the roadway and parking lot in Guadalupe River Park. The middle ground

shows trees and parts of the existing San Jose B substation. The background of the photo shows glimpses of the downtown San José skyline.

**Figure 5.1-3B**, *RV 2* shows a view from Guadalupe River Trail and Coleman Avenue looking south to the proposed Skyline terminal from a pedestrian's or motorist's perspective. The foreground shows Coleman Avenue while the middle ground shows the existing San Jose B substation and roadside trees. In the background, a small part of the downtown San José skyline is visible.

**Figure 5.1-3C**, *RV 3* shows a view from the intersection of Coleman Avenue and Autumn Parkway looking southeast towards the proposed Skyline terminal from either a pedestrian's or motorist's point of view. The foreground shows a sidewalk and Autumn Parkway. The middle ground shows trees growing along the Guadalupe River. Portions of downtown San José are visible in the background.

**Figure 5.1-3D**, *RV 4* shows a view looking southeast on the Guadalupe River Trail toward the existing San Jose B substation and the proposed Skyline terminal from a pedestrian's perspective. The Guadalupe River is visible in the foreground. The middle ground shows the Guadalupe River Trail, the existing San Jose B substation, and the lot for the proposed Skyline terminal. Several buildings of the downtown San José skyline are visible in the background.

**Figure 5.1-3E**, *RV 5* shows a view from SR-87 looking southwest toward the proposed Skyline terminal from a motorist's point of view. The foreground shows the shoulder of SR-87. The middle ground shows the empty lot for the proposed Skyline terminal and existing San Jose B substation. Portions of Guadalupe River Park and Trail, and commercial development area are visible in the background.

**Figure 5.1-3F**, *RV 6* shows a view from Autumn Parkway and Guadalupe River Trail West looking northeast from motorists' or pedestrians' perspectives. The foreground shows empty land alongside Autumn Parkway. The middle ground shows a bridge with train tracks on it, and the background shows SR-87.

**Figure 5.1-3G**, *RV 7* shows a northwest view on Basset Street from a pedestrian's or motorist's point of view. The foreground shows Basset Street and a parking lot. The background shows the existing San Jose B substation.

**Figure 5.1-3H**, *RV 8* shows a view from Metcalf Road looking south towards the existing Metcalf substation from a motorist's point of view. Metcalf Road and roadside trees are visible in the foreground. The existing Metcalf substation is visible in the middle ground, and the background shows large structures at the Metcalf Energy Center and the hills in the Santa Cruz Mountain Range.

**Figure 5.1-3I**, *RV 9* shows a view from Metcalf Road looking southeast towards the proposed Metcalf to Grove 500 kV transmission line from a motorist's perspective. The foreground shows Metcalf Road and roadside trees, while the middle ground shows parts of the existing Metcalf substation. The background is not visible.

**Figure 5.1-3J**, *RV 10* shows a view from Coyote Creek Trail looking north towards the site of the proposed Metcalf to Grove 500 kV transmission line from a pedestrian's point of view. The

foreground shows the Coyote Creek Trail and the grass and plant life growing alongside it. The background shows a hillside across U.S. Route 101.

**Figure 5.1-3K**, *RV 11* shows a view from Coyote Ranch Road looking east towards Coyote Creek Parkway from a motorist's perspective. The foreground shows Coyote Ranch Road, Coyote Creek Trail, and trees growing alongside the trail. The middle ground shows Coyote Creek Parkway and many trees, while the background shows mountains of the Diablo Mountain Range.

**Figure 5.1-3L**, *RV 12* shows a view looking south from Coyote Ranch Road and Coyote Creek Trail towards the proposed Grove terminal site from a pedestrian's or motorist's perspective. In the foreground are the Coyote Creek Trail and the Coyote Creek Parkway. In the middle ground is a tree line blocking the proposed Grove terminal site and the background.

**Figure 5.1-3M**, *RV 13* shows a view from Coyote Creek Trail looking southwest towards the proposed Grove terminal site from the point of view of a pedestrian on the trail. In the foreground, the grass growing along the trail and the fence bordering the proposed Grove terminal site are visible. The middle ground shows the trees in and past the proposed Grove terminal site, and the Santa Cruz Mountains are visible in the background.

**Figure 5.1-3N**, *RV 14* shows a view from Monterey Road from a motorist's perspective looking east towards the proposed Grove terminal site. In the foreground is Monterey Road and the traffic barrier. The middle ground shows trees and an above-ground power line that sits alongside Monterey Road. A glimpse of the Diablo Mountains is visible in the background.

**Figure 5.1-3O**, *RV 15* shows a view from U.S. Route 101 looking west from a motorist's point of view towards the proposed Grove terminal site. In the foreground is U.S. Route 101, and in the middle ground are trees next to the highway.

**Figure 5.1-3P**, *RV 16* shows a view from Monterey Road looking north at the proposed Grove terminal from a motorist's perspective. The foreground shows Monterey Road, shrubs, and communication lines alongside the highway. The middle ground shows trees in the lot proposed for the Grove terminal and surrounding lots. The background shows parts of the Diablo Mountain Range.

**Figure 5.1-4**, *KOP 1* shows a view from Guadalupe River Trail looking southeast towards the proposed Skyline terminal from a pedestrian's perspective. The foreground shows the trail, the empty lot proposed for the Skyline terminal, and the fence that separates them. The background shows SR-87 and the City of San José skyline.

**Figure 5.1-5**, *KOP 2* shows a view looking south on Santa Teresa Street from a motorist's or pedestrian's point of view (on Ryland Parkway Trail). In the foreground, Santa Teresa Street, the sidewalk, plants growing alongside the road, and parts of the existing San Jose B substation are visible. The middle ground shows the empty lot proposed for the Skyline terminal. Some buildings in downtown San José can be seen in the background.

**Figure 5.1-6**, *KOP 3* shows a view from Coyote Creek Trail looking west at the proposed Grove terminal site from a pedestrian's point of view. In the foreground, the trail, trailside trees, a fence, and the lot proposed for the Grove terminal are visible. The background shows the Santa Cruz Mountain Range.

**Figure 5.1-7**, *KOP 4* shows a view from Monterey Road looking north toward the proposed Grove terminal site from a motorist's perspective. The foreground shows Monterey Road, the plants, poles, and communication lines alongside the road. The middle ground shows an empty grass covered lot and trees in and around the proposed Grove terminal site and Coyote Creek Parkway. The Diablo Mountain Range is visible in the background.

The set of visual simulations presented on **Figures 5.1-4** through **5.1-7** documents the Proposed Project-related visual changes that would occur at four KOPs and provides the basis for evaluating potential visual effects associated with the Proposed Project from these key public views. The methodology employed for preparing the simulations includes site photography, computer modeling, and digital rendering techniques. Photographs were taken using a full-frame digital camera with a standard 50-millimeter lens, which represents an approximately 40-degree horizontal view angle. Photography viewpoint locations were documented systematically using photo log sheet notation, global positioning system (GPS) recording, and base-map annotation. Digital aerial photographs and Proposed Project design information supplied by PG&E and LS Power provided the basis for developing a three-dimensional computer model of the new Proposed Project components. For each KOP simulation, viewer location was input from GPS data, using 5.5 feet as the assumed eye level. Computer "wireframe" perspective plots were overlaid on the simulation photographs to verify scale and viewpoint location. Digital visual simulation images then were produced based on computer renderings of a three-dimensional computer model matched to and combined with the selected digital site photographs. The simulations are presented as figures with two images designated "A" and "B," with the existing views shown on the "A" photo and the post-Proposed Project visual simulations shown on the "B" photo.

#### 5.1.1.7 Representative Viewpoints

High-resolution photographs were taken at each of the 16 RVs and are included in **Figures 5.1-3A** through **5.1-3P**. **Table 5.1-3** provides the capture time and date of each photograph. All photographs were taken on a 50-millimeter Canon EOS-5D at a height of five feet.

#### 5.1.1.8 Visual Resource Management Areas

There are no classified Visual Resource Management Areas located within the Proposed Project area because it is not located on federal public lands (U.S. Department of the Interior Bureau of Land Management, 2020).

### 5.1.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 5.1.2.1 Aesthetics Regulatory Setting

**Federal**

***Federal Highway Administration Guidelines for the Visual Impact Assessment of Highway Projects***

FHWA Guidelines for the Visual Impact Assessment provide an approach and methodology for assessing visual impacts caused by federally funded highway projects (FHWA, 2015). The

guidelines represent the FHWA's process for analyzing and mitigating potential visual impacts but do not provide policies or binding regulations. The guidelines are intended to be used as a step-by-step tool for authors of a visual impact assessment, as a training resource in a classroom or as a learning aid for self-taught individuals, and as a reference that details specific tasks, techniques, or terms for a more thorough understanding of visual quality and visual impact assessment. The FHWA process is outlined in four phases: establishment, inventory, analysis, and mitigation. Each phase considers the affected physical environment as well as the interaction between viewers and their surroundings.

Although the guidelines do not explicitly provide recommendations for transmission line or regional utility infrastructure projects, the methodology is applied to this analysis because the Proposed Project is a linear project within public roadways that traverses urban areas, similar to a highway project. In addition, the FHWA's phased approach has been referenced by state and federal agencies such as Caltrans and the Bureau of Land Management (BLM) in the development of their own guidelines for National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA) compliant visual impact assessment of various project types.

**State**

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

There are no designated state scenic highways in the Proposed Project area. The nearest eligible scenic highway is a segment of I-280 that ends at the junction with I-880, approximately 2.6 miles west of the Proposed Project area; and the nearest designated scenic highway is SR-9, which is located approximately 8.4 miles west of the proposed Skyline terminal site.

**Local**

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, "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 the City of San José and the County Santa Clara County do not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section includes a summary of local aesthetics-related policies, plans, or programs for informational purposes. Although LS Power Grid California, LLC ("LS Power") is not subject to local discretionary permitting, ministerial permits would be secured as appropriate.

### *County of Santa Clara General Plan*

The County of Santa Clara General Plan contains goals, strategies, and policies for the County as a whole, as well as rural unincorporated areas outside of cities and remaining unincorporated areas within cities' urban service areas (County of Santa Clara, 1994). The following policies relating to aesthetics are provided for informational purposes:

**Policy C-GD 17** Planning for Coyote Valley's future development should provide for the following in the area of resource conservation:
a. permanent preservation of hillsides in open space;
b. retention of a greenbelt of non-urban uses and densities between San José and Morgan Hill; and
c. protection of a scenic corridor adjacent to Highway 101.

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

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

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

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

**Policy C-PR 44** Landscaping with drought-resistant native plants should be encouraged adjacent to scenic roads and highways.

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

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

**Policy C-RC 58** The general approach to scenic resource preservation on a countywide basis should include the following strategies:
a. conserving scenic natural resources through long range, inter-jurisdictional growth management and open space planning;
b. minimize development impacts on highly significant scenic resources; and
c. maintaining and enhancing scenic urban settings, such as parks and open space, civic places, and major public commons areas.

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

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

**Policy C-RC 62** Urban parks and open spaces, civic places, and public commons areas should be designed, developed, and maintained such that the aesthetic qualities of urban settings are preserved and urban livability is enhanced. Natural resource features and functions within the urban environment should also be enhanced.

**Policy C-HS 34** Flood control measures should be considered part of an overall community improvement program to advance several goals, including scenic preservation of the County's streams and creeks.

**Policy R-LU 73** The County's major gas and electric distribution system should be:

1. adequate to meet the projected energy needs of the people of Santa Clara County; and
2. compatible with the environmental resources and scenic qualities of the County.

**Policy R-LU 74** In locating major gas and electric transmission distribution facilities, the primary environmental considerations shall be to minimize aesthetic impacts and to avoid developed residential and/or public recreation areas. Major electrical transmission lines should be located and designated in accordance with the following principles:

1. Route selection should avoid ridgelines and follow the natural flow and rhythm of land forms as much as possible.
2. Routes should not cross scenic roads at points where lines will be visible for long distances.
3. Minimum height structures should be used to reduce visual impacts where the additional structures which result are not objectionable.
4. Vegetation should be used for screening where it will not interfere with a facility's operation.
5. Design, appearance, and paint selection should reduce visual impact.
6. If natural vegetation need not be removed in order to provide adequate service access and passable rights of way, it should be maintained and enhanced to control erosion and minimize visual impacts. Vegetation which could pose a threat to the transmission line should not be retained.

**Policy R-LU 75** Electric substations and gas control and metering stations shall be located, designed, and landscaped to fit as inconspicuously and harmoniously as possible into the area in which they are required. Locations along scenic roads and heavily traveled highways should be avoided.

**Policy R-LU 76** The multiple use of transmission line rights-of-ways, landscaped greenways, parking area, and parks shall be encouraged, provided there is no threat to public health and safety.

***City of San José General Plan***

The City of San José General Plan contains goals, strategies, and policies for the City (City of San José, 2024). The following policies relating to aesthetics are provided for informational purposes:

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

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

**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

### 5.1.3 IMPACT QUESTIONS

#### 5.1.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to aesthetics come from CEQA, Appendix G, Environmental Checklist. According to the CEQA Checklist, a project may cause a potentially significant impact if it, except as provided in Public Resources Code (PRC) Section 21099, would:

- Have a substantial adverse effect on a scenic vista; or
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway; or
- In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality; or

- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

#### 5.1.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing Proponent's Environmental Assessments* (CPUC, 2019), there are no additional CEQA Impact Questions required for aesthetics.

### 5.1.4 IMPACT ANALYSIS

The visual impact analysis evaluates the visual changes that would occur from implementing the Proposed Project using the standards of quality, consistency, and symmetry typically used for a visual assessment. This assessment is based on a review of maps, site photographs, aerial photographs, Proposed Project-specific technical drawings, and the rendering of the Proposed Project. This analysis also focuses on the KOPs discussed above in **Section 5.1.1**, *Environmental Setting*. Analysis of the impacts on existing visual resources from implementing the Proposed Project is based on evaluation of the extent and implications of the visual changes, considering the following factors:

- Specific changes in the visual character, and specifically valued qualities of the affected environment;

- Visual context of the affected environment; and

- Number of viewers, their activities, and the extent to which these activities are related to the aesthetic qualities affected by actions that would be taken under the Proposed Project.

The impact analysis below primarily focuses on aboveground Proposed Project components, which would have the largest potential to impact the existing visual resources since the underground transmission lines would not be visible after construction. An assessment of visual quality is subjective, and reasonable disagreement can occur as to whether alterations in the visual character of the potentially affected area would be adverse or beneficial.

#### Methodology

The visual analysis is based on a review of technical data, including project maps and drawings provided by LS Power and PG&E, aerial and ground-level photographs of the Proposed Project area, local planning documents, and computer-generated visual simulations. Field observations were conducted in August 2023 to take representative photos and document existing visual conditions in the Proposed Project area to identify potentially affected sensitive viewing locations.

The visual assessment methods are based, in part, on guidance from the FHWA and other accepted visual analysis techniques. **Section 5.1.1** documents the existing visual character in the Proposed Project vicinity, defines the area of visual effect, and establishes the potentially affected environment and population. **Section 5.1.4**, *Impact Analysis* provides the impact analysis and mitigation required to reduce any significant environmental effects. This study also addresses the CEQA Guidelines and Appendix G impact criteria for visual impact analysis. Documentation of the visual setting and an evaluation of visual changes associated with the Proposed Project are

provided. To establish existing visual conditions, photographs are included that show representative public views of the Proposed Project area. The majority of the Proposed Project would be installed underground within existing roads or otherwise in urban areas; therefore, the analysis focuses on short-term construction impacts as well as permanent impacts of the proposed aboveground structures.

Consistent with FHWA methods, this impact analysis describes the potential change to existing visual resources and assesses viewer response to that change. Central to this assessment is an evaluation of RVs from which the Proposed Project would be visible to the public. Four key representative public viewpoints, or KOPs, have been selected to represent viewing locations where the Proposed Project could be most visible to the public. To document the visual change that would occur, visual simulations, presented as before and after images, show the Proposed Project from these KOPs. Note that landscaping plans for the proposed Skyline and Grove terminal sites would be determined through a Site Design and Landscape Management Plan; therefore, no simulations are provided showing landscape vegetation establishment. The visual change attributed to the removal of orchard trees at the Grove terminal is depicted from KOP 4 in **Figure 5.1-7**. **Section 5.1.1.6**, *Representative Viewpoints* contains a description of the technical methods employed for digital site photography and to produce the visual simulations. The visual impact assessment is based on the evaluation of the changes to the existing visual resources that would result from construction and operation of the Proposed Project. These changes were assessed, in part, by evaluating the KOP after views provided by the computer-generated visual simulations and comparing them to the existing visual environment.

#### 5.1.4.1 Aesthetics Impact Analysis

**Except as provided in PRC Section 21099, would the project have a substantial adverse effect on a scenic vista?**

**Less-Than-Significant Impact.** For the purposes of this evaluation, a scenic vista is defined as a view of or from a scenic resource identified by the City of San José or the County of Santa Clara. An analysis of RVs and KOPs as viewed from public roadways and trails is also provided below.

**Temporary Construction Impacts**

**Section 5.1.1.2**, *Scenic Resources* and **Figure 5.1-1** describe and identify scenic resources within a five-mile buffer of the Proposed Project area, which includes scenic vistas and corridors. **Section 5.1.1.3**, *Viewshed Analysis* describes the general area from which the Proposed Project is visible, including which of the scenic resources are likely to have a view of the Proposed Project, depending on their location within the foreground, middle ground, and background. Based on the definition of a scenic vista in this evaluation, the scenic vistas within five miles of the Proposed Project area that have a view of the Proposed Project include: high elevation points of the Santa Cruz Mountain Range, the Diablo Mountain Range, and the Santa Clara Valley, along with the Guadalupe River Park, Guadalupe River Trail, Ryland Park, Ryland Parkway Trail, Coyote Creek Parkway, Coyote Creek Trail, and the City of San José skyline. Several scenic corridors and highways are in the area and are discussed in the next response.

A substantial adverse effect on these scenic vistas would typically occur if the Proposed Project resulted in permanent changes to the visual landscape. While construction equipment may temporarily introduce visually unappealing structures to the visual landscape or result in

temporary increases in noise and dust, these are not permanent changes. Upon completion of construction, the construction equipment would be removed, and excess dust from construction equipment would cease. Construction activities associated with the proposed Grove to Skyline 320 kV DC transmission line would progress in a generally linear fashion, with construction activities only occurring for a relatively brief period of time at a particular location. This limited duration reduces the severity of potentially significant effects to scenic vistas. In addition, **Applicant Proposed Measure (APM) AES-1,** *Maintenance of Construction Areas* would be implemented to maintain an orderly site and return temporary staging and work sites to their pre-project conditions, further reducing the visual impacts during construction.

**Permanent Visual Impacts**

The Santa Cruz Mountain Range and Diablo Mountain Range are between three and five miles from the Proposed Project area and are, therefore, located within the background zone. As discussed in **Section 5.1.1.3**, the general landscape within the Proposed Project area is visible from these scenic vistas; however, individual structures are not visible due to the distance. The Guadalupe River Park, Guadalupe River Trail, Ryland Parkway Trail, Coyote Creek Parkway, and Coyote Creek Trail are within the foreground zone, and the Proposed Project area is prominently visible from these scenic vistas. These resources are described in more detail in **Section 5.16**.

In order to illustrate the visual change that would result from implementation of the Proposed Project, four visual simulations were prepared based on photographs taken at identified KOPs and include areas of the Proposed Project that are visible from these scenic vistas. **Section 5.1.1.6** provides a summary of the existing visual conditions and visibility of the Proposed Project area from the KOPs, as well as the representative photographs. The visual change at each KOP is described below and summarized in **Table 5.1-4**, *Summary of Visual Change at KOPs*, which provides an overview of the potential visual change at each KOP including RV location with corresponding visual sensitivity factor(s) (per FHWA Visual Impact Assessment Guidelines), approximate viewing distance, and summary of visible change and potential effect that would occur at each KOP location.

**Table 5.1-4. Summary of Visual Change at KOPs**

| KOP Number; Corresponding Figure[1] | Visual Sensitivity Factor(s) | Approximate Viewing Distance (to Nearest Proposed Project Feature) | Visual Change and Effect |
|---|---|---|---|
| KOP 1<br>Figure 5.1-4 | • View from the Guadalupe River Trail.<br>• Woodland vegetation along Guadalupe River could be considered a scenic urban resource, but KOP views toward the site consist of a vacant lot and chain-link fence in the foreground and downtown San José structures in the background. | 140 feet | • New Skyline terminal structures (e.g. switchyard enclosure, HVDC equipment enclosure, transformers, Skyline to San Jose B 115 kV station tie line, lightning shielding masts)<br>• Proposed enclosure structures would be non-reflective gray or neutral earth-tone colors.<br>• Views to Guadalupe River would not be affected.<br>• Given presence of existing adjacent PG&E utility structures and surrounding |

| Table 5.1-4. Summary of Visual Change at KOPs | | | |
|---|---|---|---|
| **KOP Number; Corresponding Figure[1]** | **Visual Sensitivity Factor(s)** | **Approximate Viewing Distance (to Nearest Proposed Project Feature)** | **Visual Change and Effect** |
| | • Viewers are trail users, pedestrians, and cyclists.<br>• Low visual sensitivity. | | urban development, new Proposed Project structures would not dominate view and would not significantly affect existing landscape character at this location. |
| KOP 2<br>Figure 5.1-5 | • View from Ryland Parkway Trail, shows a vacant lot and chain-link fence in the foreground and downtown San José structures in the background.<br>• Proximity to nearby commercial/industrial facilities.<br>• Viewers include a limited number of trail users, local motorists, and employees of nearby industrial/commercial establishments.<br>• Low visual sensitivity. | 85 feet | • New Skyline terminal structures (e.g. HVDC equipment enclosure, transformers, lightning shielding masts).<br>• Proposed enclosure structures would be non-reflective gray or neutral earth-tone colors.<br>• Given presence of existing adjacent PG&E utility structures and surrounding urban development, new Proposed Project structures would not dominate view and would not significantly affect existing landscape character at this location substantially. |
| KOP 3<br>Figure 5.1-6 | • View from Coyote Creek Trail with fencing and undeveloped and agricultural uses in the foreground, existing orchard trees in the middle ground, and Santa Cruz Mountains in the background.<br>• Viewers are trail users, pedestrians, and cyclists.<br>• Moderate visual sensitivity. | 300 feet | • New Grove terminal structures (e.g. HVDC equipment enclosure, lightning shielding masts).<br>• Proposed enclosure structures would be non-reflective gray or neutral earth-tone colors that lessens visual contrast when viewed with the existing agricultural fields and against a light sky.<br>• New terminal structures would obscure views of the Santa Cruz Mountains; however, obstruction would be limited to the 6.3-acre terminal.<br>• Moderate level of incremental visual change would not affect existing landscape character substantially. |
| KOP 4<br>Figure 5.1-7 | • View from Monterey Road, south of proposed Grove terminal.<br>• Views include existing distribution and communication poles, overhead lines, and existing orchard in the foreground; Diablo Mountain Range in the background. | 700 feet | • New Grove terminal structures (HVDC equipment enclosure, lightning shielding masts).<br>• Proposed enclosure structures would be non-reflective gray or neutral earth-tone colors that lessens visual contrast when viewed with the existing agricultural fields and against a light sky.<br>• New terminal structures would obscure views of the Diablo Mountain Range; |

| Table 5.1-4. Summary of Visual Change at KOPs | | | |
|---|---|---|---|
| **KOP Number; Corresponding Figure[1]** | **Visual Sensitivity Factor(s)** | **Approximate Viewing Distance (to Nearest Proposed Project Feature)** | **Visual Change and Effect** |
| | • Viewers include motorists and managers/employees of agricultural uses to the southwest.<br>• Moderate visual sensitivity. | | however, obstruction would be limited to the 6.3-acre terminal.<br>• Removal of orchard trees would present a visual change; however, approximately 150 trees retained along Monterey Road would maintain a visual vegetation buffer and lessen impacts.<br>• Moderate level of incremental visual change would not affect existing landscape character substantially. |
| [1]Refer to **Figures 5.1-4** through **5.1-7**. | | | |

As shown in **Figure 5.1-4** (KOP 1), the view of the Proposed Project area from the Guadalupe River Park and Trail currently includes a vacant lot with chain-link fence and light post in the foreground, a highway overpass in the middle ground, and buildings of varying heights in the background. The addition of the proposed Skyline terminal would obscure the current middle ground and background views. A light post would still be visible in the foreground, while an interior wall, buildings, and other components of the proposed Skyline terminal would also be visible. The important views that make Guadalupe River Park and Trail scenic vistas include the meandering trails that serve as a pedestrian corridor throughout the City, natural vegetation within an otherwise urban area, and the river itself. None of these views would be obscured by implementation of the Proposed Project. The proposed Skyline terminal would be located to the east of the easternmost trail within the park while the scenic views are to the north, south, and west of this portion of the trail. In addition, while the proposed Skyline terminal would result in a completely different view to the east, the current view does not include meandering trails, natural vegetation, or the river and instead showcases urban features. Therefore, the general nature and use of the area would not substantially change. In addition, **APM AES-2**, *Site Design and Landscape Management Plan* would be implemented to ensure consideration of the City of San José Guadalupe River Park & Gardens Urban Design Guidelines (2003), which includes design themes to support the vision of the park. Implementation of this APM would ensure that the City of San José's vision for the Guadalupe River Park and Trail continues and that it remains a livable, walkable, urban community that is oriented to the river and surrounding streets. Given the presence of existing adjacent PG&E utility structures and surrounding urban development, new Proposed Project structures would not dominate views and would not significantly affect existing landscape character at KOP 1.

As shown in **Figure 5.1-5** (KOP 2), the view of the Proposed Project area from Ryland Parkway Trail includes streets and sidewalks in the foreground, a vacant lot with a chain-link fence in the middle ground, and buildings of varying heights in the background. A corner of the existing San Jose B substation is also visible to the right of the photograph. The addition of the proposed Skyline terminal would partially obscure the current background and middle ground views by

adding a new building and structures that would replace the vacant lot. The streets, sidewalks, and existing San Jose B substation would still be visible in the foreground. The proposed Skyline terminal is not substantially different visually from the existing buildings that are visible in the background, and it is consistent with the surrounding uses, including the existing substation and poles. Additionally, **APM AES-2** would be implemented, and this would result in the addition of landscaping and other design features that would make the proposed terminal site even more consistent with the existing visual landscape. Given the presence of existing adjacent PG&E utility structures and surrounding urban development, new Proposed Project structures would not dominate views and would not significantly affect existing landscape character at KOP 2.

As shown in **Figure 5.1-6** (KOP 3), the view of the Proposed Project area from Coyote Creek Parkway and Trail includes a chain-link fence, trees, existing orchard trees, and tall grasses in the foreground and middle ground and rolling hills of the Diablo Mountain Range in the background. The addition of the proposed Grove terminal would partially obscure the current background views of the rolling hills with structures. The permanent disturbance area of the Grove terminal would be approximately 7.4 acres; however, obstruction of views would be limited to the fenced-in portion of the terminal, which is approximately 6.3 acres. The trees and tall grasses in the foreground and middle ground would still primarily be visible with implementation of the proposed terminal. As shown in **Figure 5.1-3M** (RV 13), as the trail continues along the boundary of the proposed Grove terminal site, views of the site become obscured by trees. In addition, the materials of the proposed Grove terminal structures are designed to include a color palette that blends in with the golden grass and hillsides such that it is not visually jarring. However, the rolling hills and trees are an important component of the visual landscape of the area, particularly to trail users, and implementation of the Proposed Project would create a large visual obstruction. Further, construction of the proposed Grove terminal would require removal of approximately 2,850 orchard trees, which may be considered visually scenic by local trail users. Therefore, **APM AES-2** would be implemented to reduce impacts associated with the addition of the proposed Grove terminal structures. **APM AES-2** would require that a Landscape Plan is developed for this site. The remaining trees and other vegetation would partially obscure the proposed Grove terminal structures and reduce the sharp contrast between the buildings and the hillsides. The moderate level of incremental visual change at KOP 3 would, therefore, not substantially affect the existing landscape character.

As shown in **Figure 5.1-7** (KOP 4), the view of the Proposed Project area from Monterey Road includes fencing, trees, existing orchard trees, wood distribution and communication poles and overhead electric and communication lines, grasses, and Monterey Road in the foreground and middle ground and rolling hills of the Diablo Mountain Range in the background. The addition of the proposed Grove terminal would partially obscure the current background views of the rolling hills with structures, similar to KOP 3; however, obstruction would be limited to the 6.3-acre terminal and would not substantially change the visual character of the vicinity. The trees and grasses in the foreground and middle ground would also still primarily be visible with implementation of the proposed terminal. Construction of the proposed Grove terminal would remove approximately 2,850 orchard trees, which are visible from portions of the roadway where they are not obscured by ornamental trees and bushes in the foreground. However, the Proposed Project would retain approximately 150 orchard trees along Monterey Road, which would maintain the visual buffer and reduce visual changes experienced by motorists on Monterey Road. As shown in **Figure 5.1-3P** (RV 16), existing vegetation provides a visual barrier between the roadway and the proposed Grove terminal site, which would be retained following construction of the Proposed Project. Further, **APM AES-2** would be implemented to reduce impacts associated

with the addition of the proposed Grove terminal structures. The moderate level of incremental visual change at KOP 4 would, therefore, not substantially affect the existing landscape character.

Therefore, though the Proposed Project would introduce new structures to the views from scenic vistas, the implementation of **APMs AES-1** and **AES-2** would ensure that the Proposed Project is generally consistent with applicable design guidelines and maintains natural vegetation and other features that make up the visual landscape of the area. This change would not result in a substantial adverse effect on a scenic vista. Visual impacts from construction and O&M of the Proposed Project under this criterion would be less than significant.

**PG&E Facility Upgrades**

In order to integrate the proposed HVDC terminals and new Grove to Skyline 320 kV DC transmission line into the existing transmission system, PG&E would be required to perform upgrades at two existing substations: modifications to the Metcalf substation and expansion of the San Jose B (refer to **Section 3.3.5**, *Other Potentially Required Facilities*). The substation upgrades would occur within and adjacent to the existing substation facilities. The PG&E facility upgrades would also include a new water line to the existing Metcalf substation, which would extend approximately 800 feet north-northeast from the Metcalf substation and connect to an existing 16-inch water main near the corner of Metcalf Road and Malech Road, which is served by the Great Oaks Water Company. Construction of these upgrades would occur concurrently with construction of the rest of the Proposed Project and for a limited duration. The facility upgrades would be consistent with the appearance of facilities within the existing substations and, therefore, would not substantially change the view of or from scenic vistas. Less-than-significant impacts would occur.

**Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?**

**Less-Than-Significant Impact.** As illustrated in **Figure 5.1-1**, the Proposed Project is within five miles of SR-87, I-280, and U.S. Route 101, which are all City of San José-designated urban corridors, as well as numerous other rural scenic corridors and City gateways. U.S. Route 101 is also a designated City of San José scenic roadway and identified as a scenic highway in the County of Santa Clara General Plan. The nearest designated State scenic highway is SR-9, and the nearest eligible State scenic highway is I-280, which are, respectively, located approximately 8.4 miles and 2.6 miles west from the proposed Skyline terminal and would have no view of the site. The proposed Skyline terminal would be visible from SR-87, and a small portion of the proposed Grove terminal may be visible from U.S. Route 101. In addition to the state and local scenic highways, there are also several City of San José-designated rural scenic corridors and gateways that intersect the underground alignment. However, since the alignment would be underground, once constructed it would not be visible from these scenic roadways.

There are no scenic rock outcroppings within or adjacent to these scenic roadways. Trees are limited near SR-87 and plentiful near U.S. Route 101. Historic properties are discussed in **Section 5.5**, *Cultural Resources*. No other scenic resources are located within the roadways.

**Temporary Construction Impacts**

During construction, visual impacts would include the presence of workers, construction equipment, and vehicles associated with the installation of the proposed Skyline terminal, the proposed Grove terminal, and the proposed underground transmission lines. Construction

activities would be visible for travelers along SR-87, I-280, U.S. Route 101, and other scenic roadways for the portions of the Proposed Project located within the viewshed of those roadways. Construction-related visual impacts of the Proposed Project would be temporary and would not substantially degrade the existing visual character or quality of the site and its surroundings. In addition, **APM AES-1** would require an orderly site be maintained and temporary staging and work sites be restored to their pre-project conditions, further reducing visual impacts during construction.

**Permanent Visual Impacts**

This analysis focuses on SR-87 and U.S. Route 101, as these are the two scenic roadways that would have a view of the Proposed Project once operational.

**Figure 5.1-3E** (RV 5) shows a view from SR-87 looking southwest toward the proposed Skyline terminal. The highway and highway signs are visible in the foreground, a vacant lot; the existing San Jose B substation, and other buildings are visible in the middle ground; and the Guadalupe River Park and Trail, along with other buildings, are visible in the background. Implementation of the Proposed Project would partially obscure views from SR-87 in the background and middle ground by adding a new building and structures that would replace the vacant lot. The highway signs, buildings, and existing San Jose B substation would still be visible in the foreground and middle ground. While the Proposed Project would obscure views of the Guadalupe River Park and Trail from SR-87, motorists traveling on SR-87 currently drive at high speeds and glimpse those natural features from a distance for a couple seconds. The proposed Skyline terminal is not substantially different visually from the existing buildings and the existing San Jose B substation that are currently visible, and it would be consistent with the surrounding uses, including the existing San Jose B substation and poles. Additionally, **APM AES-2** would be implemented to include landscaping and other design features as required to make the proposed Skyline terminal site even more consistent with the existing visual landscape.

**Figure 5.1-3O** (RV 15) shows a view from U.S. Route 101 looking west towards the proposed Grove terminal. The highway and trees are visible in the foreground, and the trees dominate the view so that only slivers of a hillside are visible in the middle ground and background. This view of the Proposed Project area is consistent along U.S. Route 101; due to the topography and existing vegetation, the area to the west of U.S. Route 101, including the Proposed Project area, is severely limited and in almost all cases not visible. Therefore, implementation of the Proposed Project would not substantially change the views from U.S. Route 101.

With implementation of **APMs AES-1** and **AES-2**, the Proposed Project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. Therefore, visual impacts from construction and O&M of the Proposed Project under this criterion would be less than significant.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. The PG&E substation upgrades would be consistent with the appearance of facilities within the existing substations and, therefore, would not substantially change the view of or from scenic resources, including the designated scenic highways and roadways near the Proposed Project area. While the new underground water line would be visible

from motorists and trail users during construction, this would be a temporary, short-term change in the view. Once constructed, the water line would not be visible. Therefore, less-than-significant impacts would occur.

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

**Less-Than-Significant Impact.** The Proposed Project area is primarily located within an urban area. As the proposed underground line approaches the existing Metcalf substation, the surrounding area transitions to agricultural and light industrial land uses. Details on the applicable land use and zoning regulations are discussed in **Section 5.11**, *Land Use and Planning*. Regulations specific to scenic quality are also discussed in **Section 5.1.2**, *Regulatory Setting*. While the Proposed Project is not regulated by the City of San José or the County of Santa Clara, this analysis considers those agencies' regulations.

**Temporary Construction Impacts**

Construction-related visual impacts associated with the Proposed Project would not substantially degrade the existing visual character or quality of the site and its surroundings. Construction-related visual impacts would result from the presence of equipment, materials, and work crews along the Proposed Project alignment. Although these effects are relatively short-term, they would be most noticeable to residents who live in close proximity to the proposed Grove to Skyline 320 kV DC transmission line alignment, Skyline terminal, and Grove terminal; motorists traveling along adjacent roadways (mainly Monterey Road, SR-87, and U.S. Route 101); and people visiting the nearby parks and trails. However, because of their short-term and temporary nature, impacts would not substantially degrade the existing visual quality of the site and its surroundings. In addition, **APM AES-1** would be implemented to further reduce the visual impacts during construction.

**Permanent Visual Impacts**

The first response above, **Section 5.1.1**, and **Figures 5.1-3A** through **5.1-3P** provide details and photographs of the existing visual landscape within the Proposed Project area. The applicable zoning and other local regulations related to scenic quality generally encourage the protection of scenic resources, public views, and overall visual characteristics.

As discussed above, the addition of the proposed Skyline and Grove terminals would not substantially change the visual character of the area or degrade the scenic quality of the scenic resources. In addition, **APM AES-2** would be implemented for the proposed Skyline terminal to ensure consideration of the City of San José Guadalupe River Park & Gardens Urban Design Guidelines (2003). **APM AES-2** would also be implemented for the proposed Grove terminal and would include maintaining the existing vegetation along part of one border of the proposed site, which would consist of ornamental vegetation and approximately 150 existing orchard trees.

The Coyote Valley area is identified in both general plans as sensitive for several reasons, including visually. Therefore, an additional KOP was selected, and a visual simulation was prepared to further illustrate the potential impacts of the proposed Grove terminal. **Figure 5.1-7**

shows a view from Monterey Road looking north toward the proposed Grove terminal site. As the before and after images indicate, the proposed buildings would be visible to motorists and would partially obstruct existing views of trees and hillsides. However, the materials of the proposed Grove terminal structures are designed to include a color palette that blends in with the golden grass and hillsides such that it is not visually jarring. In addition, **APM AES-2** would require that a Site Design and Landscape Plan is developed for this site that would include retaining the existing vegetation within the proposed Grove terminal site boundary that is adjacent to Monterey Road, which would further screen the structures.

The Proposed Project would be remotely monitored on a day-to-day basis and in general would only require monthly inspections. These O&M activities would not change the character or decrease the quality of any visual or scenic resources in the area. The Proposed Project and associated O&M activities would typically use trucks and other equipment that is not unlike the equipment that is currently used in the area.

Therefore, the changes brought about by implementing the Proposed Project would not substantially degrade the existing visual character or quality of the Proposed Project area and its surroundings. Implementation of the Proposed Project would also not conflict with applicable zoning and other regulations governing scenic quality. While the Proposed Project area would be noticeable to some viewers, the changes are generally consistent with the existing structures and color palette in the viewshed. Due to the above factors, the visual impacts from construction and O&M under this criterion would be less than significant. Implementation of **APMs AES-1** and **AES-2** would further minimize these less-than-significant impacts.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. The PG&E substation upgrades would be consistent with the appearance of facilities within the existing substations and, therefore, would not substantially change the existing visual character or quality of public views of the Proposed Project area and its surroundings. In addition, the proposed water line would be constructed underground and would not be visible once constructed. Less-than-significant impacts would occur.

**Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

**Less-Than-Significant Impact.** Lighting would be installed at the proposed HVDC terminal locations and would conform to National Electric Safety Code (NESC) requirements and other applicable outdoor lighting codes. The proposed Grove terminal site is not anticipated to typically require nighttime illumination; however, the proposed Skyline terminal is anticipated to typically require nighttime illumination. Terminal station lighting would be photocell and motion controlled to provide illumination for security. Light emitting diode (LED) lights would be mounted on A-frames, H-frames, structures, poles, and enclosures as required. All lighting provided would be shielded and pointed down to minimize new sources of light onto surrounding properties and habitats. As noted in **Section 5.9,** *Hazards, Hazardous Materials, and Public Safety*, the Proposed Project would be in compliance with Federal Aviation Administration (FAA) requirements. FAA-required safety lighting is not anticipated to be required on any new structures included as part of the Proposed Project.

### Glare

Glare exists when a high degree of contrast occurs between bright and dark areas in a field of view, making it difficult for the human eye to adjust to differences in brightness. **APM AES-2** calls for the use of dull earth tones in a non-reflective finish to the extent practicable on new chain-link fencing, new terminal equipment, and equipment enclosures, which would minimize the potential effect of glare.

### Nighttime Lighting

No nighttime construction is anticipated to be necessary as part of the Proposed Project. However, given the large amount of construction proposed within existing roads, local municipalities may dictate that the proposed 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 areas. Additionally, in the case of an emergency or to support continuous operations, such as trenchless crossings, nighttime construction may be required. If work must be accomplished at night, portable temporary lighting would be directed exclusively to on-site locations and used to illuminate the immediate work area. Current Proposed Project plans call for construction activities to take place during daylight hours and for nighttime construction activities to be avoided, whenever possible. Nighttime maintenance activities are not expected to occur more than once per year or on an emergency basis.

If nighttime lighting were to occur during construction, **APM AES-1** would be implemented to ensure new sources of substantial light or glare would be avoided, and security lighting at the proposed HVDC terminal sites would be directed on site and hooded to reduce potential visibility from off-site locations. During O&M, the tallest structures within the proposed Skyline terminal site would be the approximately 100-foot-tall lightning shielding masts. This 100-foot-tall structure would be below the maximum FAA authorized aboveground structure height limit for the proposed Skyline terminal site (refer to **Section 5.9** for additional information). Therefore, aviation lighting or markings are not anticipated for the Proposed Project. With the implementation of **APMs AES-1** and **AES-2**, the impacts under this criterion would be less than significant.

### PG&E Facility Upgrades

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. The PG&E substation upgrades would be consistent with the appearance of facilities within the existing substations. The upgrades would not introduce new sources of light or glare that are substantially different from the existing environment. Therefore, the PG&E facility upgrades would not adversely affect day or nighttime views in the area. Less-than-significant impacts would occur.

## 5.1.5 CPUC Draft Environmental Measures

The CPUC recommended one Draft Environmental Measure for aesthetics. The recommended environmental measure has been included in **Section 5.1.6**, *Applicant Proposed Measures* as **APM AES-1**.

### 5.1.6 APPLICANT PROPOSED MEASURES

The following aesthetics-specific APMs would be implemented for the Proposed Project:

**APM AES-1: Maintenance of Construction Areas**

All Proposed Project construction sites shall be maintained in a clean and orderly state. Temporary construction and permanent security nighttime lighting shall be directed away from residential areas and have shields to prevent light spillover effects. Upon completion of Proposed Project construction, Proposed Project staging and temporary work areas shall be returned to pre-project conditions, including regrading of the site and revegetation or repaving of disturbed areas to match pre-existing contours and conditions.

**APM AES-2: Site Design and Landscape Management Plan**

A Site Design and Landscape Management Plan shall be developed for the proposed Skyline and Grove terminals and could include, but not be limited to, the following requirements:

- Structures and equipment at the proposed HVDC terminals shall have a non-reflective finish and a beige, grayish hue, or neutral earth-tone colors to the extent practicable.
- Existing vegetation along the proposed Grove terminal western site boundary shall remain and be maintained unless safety or security would be compromised.
- Consideration of local guidance documents, where applicable, such as the City of San Jose Guadalupe River Park & Gardens Urban Design Guidelines (2023), unless safety or security would be compromised, or if it would interfere with the future operations and maintenance of the facility.

### 5.1.7 PG&E BEST MANAGEMENT PRACTICES

No aesthetics Best Management Practices have been included for PG&E's scope of work.

## 5.2 AGRICULTURE AND FORESTRY RESOURCES

| **In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:** | | **Potentially Significant Impact** | **Less Than Significant with Mitigation Incorporated** | **Less Than Significant Impact** | **No Impact** |
|---|---|---|---|---|---|
| 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? | | | X | |
| b. | Conflict with existing zoning for agricultural use, or a Williamson Act contract? | | | | X |
| c. | Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? | | | | X |
| d. | Result in the loss of forest land or conversion of forest land to non-forest use? | | | | X |
| 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? | | | X | |

This section describes the agriculture and forestry resources in the area of the Proposed Project, as well as potential impacts resulting from construction and operation and maintenance (O&M) of the Proposed Project.

## 5.2.1 ENVIRONMENTAL SETTING

### 5.2.1.1 Agricultural Resources

Agricultural uses were previously prevalent in the City of San José; however, over the past 60 years, there has been a substantial transformation from agricultural uses to urban uses, with a large portion of the land being converted to residential, office, and commercial uses within the Santa Clara Valley, and rural development with agricultural uses remaining in and adjacent to the eastern and southern hillsides.

The agricultural potential of the Santa Clara Valley was recognized early. Orchard products dominated agricultural production, which was by far the predominant use in the City of San José and the County of Santa Clara by the end of the 19th century. Fruit production in the City of San José peaked in the 1920s, and the canning and packing industry quickly grew. The City of San José was historically known as the "Valley of the Heart's Delight" for its high concentration of orchards, flowering trees, and plants. The boundaries of the City and its urban development have since spread, and residential land uses dominate San José's landscape. Little agricultural production remains in San José; however, the community and the City have a renewed recognition of the importance of local agriculture for food security, access to healthful foods, groundwater recharge, and environmental benefits of local food production and consumption (City of San José, 2024).

In 2021, the County of Santa Clara ranked 28th among the 58 California counties in total value of agricultural production (California Department of Food and Agriculture, 2022). The top highest value agricultural crops for the County of Santa Clara in 2021 were horticulture, mushrooms, peppers, and vegetables, including spinach, tomatoes, cabbages, and sweet corn. The County of Santa Clara has 24,931 acres of cropland (County of Santa Clara, 2021). In addition to serving the local agricultural community, croplands also provide valuable ecosystem services, including carbon sequestration and flood control. The City of San José supports the County in utilizing agricultural land management practices as a cost-effective method of reducing emissions, sequestering carbon, and reaching their long-term climate goals. In the Natural and Working Lands Element of Climate Smart San José, the City estimates that preserving and enhancing its natural and working lands, which include farms and ranches, could sequester up to 6.5 million metric tons of carbon dioxide ($CO_2$) equivalent by 2050 (County of Santa Clara, 2021).

#### Williamson Act

There are no Williamson Act contract lands within the Proposed Project area, as shown on **Figure 5.2-1**, *Agricultural Resources Map* (County of Santa Clara, 2023a, 2023b). The closest land designated under Williamson Act contracts includes a parcel that is located within Martial Cottle Park (approximately 0.55 mile west of the proposed Grove to Skyline 320 kilovolt (kV) direct current (DC) transmission line and approximately six miles from the proposed Skyline terminal), two parcels located within the Santa Teresa County Park (approximately 2.5 miles southwest of the proposed Grove to Skyline 320 kV DC transmission line), and six parcels that are located approximately two miles southwest of the proposed Grove terminal site (County of Santa Clara, 2023a, 2023b).

### Prime Farmland, Unique Farmland, or Farmland of Statewide Importance

The California Department of Conservation (DOC), Division of Land Resource Protection Farmland Mapping and Monitoring Program (FMMP) provides data for use in planning for the present and future use of California's agricultural land resources. **Table 5.2-1**, *Inventory of FMMP-Designated Farmland Within One Mile of the Proposed Project* provides acreages of designated farmland within one mile of the Proposed Project area, and **Table 5.2-2**, *Inventory of FMMP-Designated Farmland Within the Proposed Project Boundary* (California DOC, 2022) provides acreages of designated farmland that are within the Proposed Project area. **Figure 5.2-2**, *Farmland Mapping and Monitoring Program – Designated Farmland Map* illustrates the location of FMMP-designated farmland in the vicinity of the Proposed Project area.

**Table 5.2-1: Inventory of FMMP-Designated Farmland Within One Mile of the Proposed Project**

| Description | Acres | Percent[1] |
|---|---|---|
| Prime Farmland | 194.37 | 1 |
| Farmland of Statewide Importance | 0.00 | 0 |
| Farmland of Local Importance | 957.92 | 5 |
| Unique Farmland | 0.00 | 0 |
| Farmland of Local Potential[2] | 150.88 | 1 |
| Grazing Land | 1,775.98 | 10 |
| Urban and Built-up Land | 14,184.64 | 77 |
| Other Land | 1,196.19 | 6 |
| Waters | 0.00 | 0 |
| Total | 18,459.98 | 100 |

Notes:
[1] Percentages rounded to the nearest percent. These values represent individual category percentages of the total lands inventoried within one mile of the Proposed Project. Percentages may not summate under 'Total' as shown due to rounding.
[2] In a few counties, the local advisory committee has elected to additionally define areas of Local Potential farmland. This land includes soils which qualify for Prime Farmland or Farmland of Statewide Importance but generally are not cultivated or irrigated (California DOC, 2023).

Source: California DOC, 2022

**Table 5.2-2: Inventory of FMMP-Designated Farmland Within the Proposed Project Boundary**

| Description | Acres | Percent[1] |
|---|---|---|
| Prime Farmland | 13.6 | 8 |
| Farmland of Statewide Importance | 0.00 | 0 |
| Farmland of Local Importance | 0.35 | 0 |
| Unique Farmland | 0.00 | 0 |
| Farmland of Local Potential | 0.00 | 0 |
| Grazing Land | 0.06 | 0 |
| Urban and Built-up Land | 149.32 | 90 |
| Other Land | 2.46 | 1 |
| Waters | 0.00 | 0 |

Notes:
[1] Percentages rounded to the nearest percent. These values represent individual category percentages of the total lands inventoried within one mile of the Proposed Project. Percentages may not calculate precisely as shown due to rounding.

Source: California DOC, 2022

### Local Agricultural Resources

The County of Santa Clara and the City of San José include land use and zoning designations specific to agricultural resources. In addition, since agricultural resources are vital to the Santa Clara Valley, both agencies have identified other agricultural resources, such as preserves and overlay zones. The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project; therefore, the Proposed Project is not subject to local land use and zoning regulations or other discretionary permits (see **Section 5.2.2**, *Regulatory Setting* for more information). For informational purposes, both the County of Santa Clara and City of San José agricultural resources are discussed here.

**Figure 5.2-1** and **Table 5.2-3**, *Agriculture Land Use and Zoning Designations Within the Proposed Project* illustrate the agricultural resources within the Proposed Project area. As shown in **Table 5.2-3**, 18.32 acres of the Proposed Project would be within agricultural zoning designations and 13.84 acres within agricultural general plan land use designations. Note that designated land use and zoning designated areas may overlap; therefore, the acreages shown below are not additive.

**Table 5.2-3: Agriculture Land Use and Zoning Designations Within the Proposed Project**

| Designation | Acres | Permitted Uses |
|---|---|---|
| *City of San José Zoning* | | |
| Planned Development Agriculture Base District (A[PD]) | 3.25 | Office and financial services, general retail, education and training, neighborhood agriculture and small farmers markets, entertainment and recreation uses, food services, tourism services, health and veterinary services, public uses, residential uses, transportation and communication, utilities and power generation, and vehicle related uses |
| *City of San José General Plan Land Use* | | |
| Agriculture (A) | 3.20 | Grazing, dairying, raising of livestock, feedlots, orchards, row crops, nursery stock, flower growing, ancillary residential uses, ancillary commercial uses such as fruit stands, and the processing of agricultural products |
| *County of Santa Clara Zoning* | | |
| Exclusive Agriculture (A-40Ac)[1] | 10.67 | Agricultural uses with minimum parcel sizes of 40 acres |
| Exclusive Agriculture (A-20 Ac-sr)[1] | 4.40 | Agricultural uses with minimum parcel sizes of 20 acres |
| *County of Santa Clara General Plan Land Use* | | |
| Agriculture Large Scale | 10.64 | Agricultural uses, including grazing, dairying, raising of livestock, feedlots, orchards, row crops, nursery stock, flower growing, ancillary residential uses, ancillary commercial uses such as fruit stands, and processing of agricultural products |

Notes:
[1] While these zoning designations are listed in the current database accessed from the County of Santa Clara, a new chapter was added to the County Zoning Ordinance in 2021 for the Coyote Valley Climate Resilience District that requires "-cv" be added to the zoning designation for properties that are located within this new zoning district (Chapter 3.95: Coyote Valley Climate Resilience Combining District, Sections 3.95.010 – 3.95.050). The Proposed Project area is located within this district, and, therefore, the zoning designation should also include A-40Ac-cv. **Section 5.11.2** provides a description of the Coyote Valley Climate Resilience District.

Sources: City of San José, 2024, 2023b; County of Santa Clara, 1994, 2012

The City of San José's Municipal Code identifies special uses that are permitted under § 20.20 Open Space and Agricultural Zoning Districts, including utility facilities as a conditional use in compliance with a conditional use permit (City of San José, 2023a).

Pursuant to the County of Santa Clara Municipal Code § C13.15(b)(5)a, special uses permitted within the contract lands include erection, construction, alteration, or maintenance of gas, electric, water, or communication facilities, subject to approval of a use permit and architecture and site approval (ASA) based on the findings and criteria established for the district. In addition, pursuant to § 2.20.020, use regulations under rural base districts, including Exclusive Agriculture (A), utility structures and facilities may be exempt from local zoning regulations if they are established by a government agency or be under federal or state laws that provide exemptions for certain types of utilities (County of Santa Clara, 2023c).

### *Coyote Valley Agriculture Overlay*

The proposed Grove terminal site and the proposed Metcalf to Grove 500 kV transmission line are located in an area within the City of San José Sphere of Influence that was recently designated as the Coyote Valley Agriculture Overlay (CVAO). The CVAO is applied to certain specified properties in Coyote Valley that have an underlying Agriculture land use designation (City of San José, 2024). The CVAO is intended to protect and preserve agricultural lands to facilitate local food production, to provide community access to healthful foods, to maintain a unique community character, and to promote the environmental, fiscal, and economic benefits of rural agricultural lands. Sites within this overlay are intended for a variety of agricultural uses consistent with the Agriculture land use designation. Development intensity in this designation will be limited in order to preserve the viability for agriculture and discourage parcel fragmentation in Coyote Valley.

Historically, Coyote Valley served as an urban reserve for the City of San José (City of San José, 2023b). Starting in the 1960 General Plan, the City planned for industrial growth in North Coyote Valley, and prerecession plans envisioned future development of 50,000 jobs and 25,000 housing units for the area. The City of San José General Plan, adopted in 2011, continued to designate Mid-Coyote Valley as an urban reserve, not planned for development through 2040. In 2019, the California State Legislature recognized the region as an area of Statewide significance through the adoption of Assembly Bill (AB) 948—Coyote Valley Conservation Program. AB 948 recognized Coyote Valley as "a unique landscape providing agricultural, wildlife, recreational, climate, and other natural infrastructure benefits." Furthermore, in 2021, as part of the recommendations to come out of the General Plan 4-Year review, the City Council voted to change General Plan and Zoning designations of properties within Coyote Valley to Agriculture to protect the region from future urban development.

### *County of Santa Clara Agricultural Preserves*

The County of Santa Clara Ordinance Code provides a definition of Agricultural Preserves (per California Government Code Section 51230), which defines the boundaries of those areas within the County that contain lands eligible for consideration for contracts pursuant to the Williamson Act. There are 10 agricultural preserves located in unincorporated areas of the County of Santa Clara (County of Santa Clara, 2015), including within and near the Proposed Project area (see **Figure 5.2-1**).

***Active Agricultural Use***

The proposed Grove terminal site would be located within an area that is currently being used as an orchard with a perimeter fence, well, deteriorating outbuilding, and a radial electric distribution line. The property has been owned and farmed by the same owner since 1983 where multiple permanent crops are grown, including stone fruits, nuts, and persimmons. The farm yields approximately 40 to 50 tons of product in a normal year, which are then sold at farmers markets in the Greater Bay Area directly by the owner to consumers. Typical agricultural practices are used on the property, and the only machinery currently used is a crawler tractor.

#### 5.2.1.2 Forestry Resources

There are no applicable forestry resources, forest land, timberland, or timberland zoned Timberland Production areas in the Proposed Project area as defined by the Public Resources Code (PRC) 12220(g), PRC 4526, or Government Code Section 51104(g) (City of San José, 2024; County of Santa Clara, 1994). According to California PRC Section 12220(g), "Forest land" is land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. According to California PRC Section 4526, "Timberland" refers to land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees. According to Government Code Section 51104(g) "Timberland production zone" or "TPZ" means an area which has been zoned for growing and harvesting timber or for growing and harvesting timber and compatible uses.

The proposed Skyline terminal site is zoned for Downtown Primary Commercial (DC) and the Grove terminal site is zoned for Planned Development within an Agricultural Base District A(PD) in the City of San José and Exclusive Agriculture (A-40Ac) in the County of Santa Clara. As such, the proposed Skyline and Grove terminals and the surrounding areas are not zoned forest land, timberland, or Timberland Production.

### 5.2.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 5.2.2.1 Agriculture and Forestry Resources Regulatory Setting

**Federal**

***Farmland Protection Policy Act***

The Farmland Protection Policy Act (FPPA) is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures, to the extent possible, that federal programs are administered to be compatible with state and local units of government, as well as private programs and policies to protect farmland. Federal agencies are required to develop and review their policies and procedures to implement the FPPA every two years. For the purpose of FPPA, farmland includes Prime Farmland, Unique Farmland, and Farmland of Statewide or Local Importance. Farmland subject to FPPA

requirements does not have to be currently used for cropland. It can be forest land, pastureland, cropland, or other land, but not water or urban built-up land (United States Department of Agriculture [USDA], 2023).

**State**

***Farmland Mapping and Monitoring Program***

The DOC, under the Division of Land Resource Protection, has established the FMMP to monitor the conversion of the State's farmland to and from agricultural use. The FMMP maps agriculturally viable lands and designates specific categories including Prime, Unique, non-Prime, or Farmland of Statewide Importance.

***Williamson Act***

The California Land Conservation Act, better known as the Williamson Act, is designed to preserve agricultural and open space land (California Government Code Section 51200 et seq.). It establishes a program of private landowner contracts that voluntarily restrict land to agricultural and open space uses. In return, Williamson Act parcels receive a lower property tax rate consistent with their actual use instead of their market rate value. Lands under contract may also support uses that are "compatible with the agricultural, recreational, or open-space use of [the] land" subject to the contract (California Government Code Section 51201[e]).

***Agricultural Preserves (California Government Code Section 51230)***

According to California Government Code Section 51230, any county or city with a general plan or by a resolution, and after a public hearing, may establish an agricultural preserve. The preserves shall be established for the purpose of defining the boundaries of those areas within which the city or county will be willing to enter into contracts pursuant to this act (i.e., Williamson Act). An agricultural preserve may contain land other than agricultural land, but the use of any land within the preserve and not under contract shall within two years of the effective date of any contract on land within the preserve be restricted by zoning, including appropriate minimum parcel sizes that are at a minimum consistent with this Section, in such a way as not to be incompatible with the agricultural use of the land, the use of which is limited by contract in accordance with this Section. Failure on the part of the board or council to restrict the use of land within a preserve but not subject to contract shall not be sufficient reason to cancel or otherwise invalidate a contract.

**Local**

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, "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 the City of San José and the County of Santa Clara do not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section includes a summary of local agriculture and

forestry resources-related policies, plans, or programs for informational purposes. Although LS Power Grid California, LLC ("LS Power") is not subject to local discretionary permitting, ministerial permits would be secured as appropriate.

***County of Santa Clara General Plan***

The County of Santa Clara General Plan was adopted on December 20, 1994. The General Plan includes policies to promote conservation and productive use of their natural resources for agriculture, ranching, watershed, public recreation, and wildlife habitat (County of Santa Clara, 1994). The strategies and policies outlined in the General Plan at the Countywide level acknowledge the importance of agriculture to the County as a whole and the need for multi-jurisdictional efforts to continue to preserve agricultural lands and the rural character of agricultural areas.

Agricultural goals, strategies, and policies from the County of Santa Clara General Plan were reviewed, and a summary is provided below for informational purposes.

**Goal 6.1** Areas of prime agricultural soils retained in productive agricultural use.

**Policy R-RC 61** Allowable land uses in exclusive agricultural areas shall be limited to: a. agriculture and ancillary uses, b. uses necessary to directly support local agriculture, and c. other uses compatible with agriculture which clearly enhance the long-term viability of local agriculture and agricultural lands.

**Policy R-LU 10** Lands designated 'Agriculture' include those having Class I, II, and III soils which generally have been in agricultural production and where agricultural uses are most appropriate.

**Policy R-LU 14** For areas designated 'Agriculture-Large Scale,' minimum parcel sizes shall be no less than 40 acres.

**Policy R-LU 150** While the predominant land use in the rural unincorporated areas of South County is agriculture, the County recognizes that there are along Monterey Road, within the areas designated 'Agriculture' and 'Rural Residential,' established, non-agricultural land uses serving the South County community. It is the policy of the County that they continue within the 'Agriculture' and 'Rural Residential' land use designations so that the needs of the South County may be served, provided that their legal status is secured in conformance with the following policies.

**Policy R-LU 151** Legally established land uses fronting Monterey Highway, south of Metcalf Road, in areas designated 'Agriculture' and 'Rural Residential' shall continue as allowable uses by right or by use permit, depending on the regulations governing their original establishment. To protect the area from undesirable strip commercial development, additional service uses will not be extended along Monterey Road.

**Policy R-GD 3** Land uses and development permitted under County jurisdiction shall be consistent with the following major County policies: a. conservation of natural resources; b. avoidance of natural hazards and the prevention of

pollution which could pose a threat to public health, safety, and welfare; c. minimizing demand for public services and costs to the general public of providing and maintaining services; d. preservation of rural character, rural lifestyle opportunities, and scenic resources; e. preservation of agriculture; and f. preventing unwanted or premature development that would preclude efficient conversion to urban uses and densities in areas suitable and intended for future annexation.

***County of Santa Clara Ordinance Code – Agricultural Preserves***

The County of Santa Clara Ordinance Code defines agricultural preserves and provides the criteria for establishing, disestablishing, or altering agricultural preserves (Title C, Division C13, Chapter 1, Article 2). The County agricultural preserves define the boundaries of those areas within the County that contain lands eligible for consideration for contracts pursuant to the Williamson Act. The establishment, disestablishment or alteration of an agricultural preserve is a legislative act that requires approval by resolution of the Board of Supervisors.

Section C13-5 states:

(a) Each agricultural preserve must contain at least 100 contiguous acres of land unless the Board of Supervisors finds that a smaller preserve is necessary due to the unique characteristics of the agricultural enterprises in the area and that such preserve is consistent with the County general plan and zoning ordinance.

(b) The use of any land within an agricultural preserve must be restricted by zoning that is compatible with the agricultural use of the lands within the preserve that are subject to contracts. Such zoning restrictions include appropriate minimum parcel sizes consistent with the Williamson Act and this chapter.

(c) No agricultural preserve may be disestablished or altered to remove land from the agricultural preserve if removal of the land would cause or contribute to the premature or unnecessary conversion of agricultural land to urban uses or to significant encroachment of incompatible land uses into the immediate vicinity of contracted land.

(d) All agricultural preserves must comply with the County general plan and zoning ordinance.

Section C13-6(b) states that a landowner whose property is included in an agricultural preserve and who wishes to have that property excluded from an agricultural preserve may apply to disestablish or alter the boundaries of the agricultural preserve in which the property is located to exclude the property. To initiate this process, the landowner must file an application prepared by the County for this purpose with the Clerk of the Board of Supervisors.

***County of Santa Clara Ordinance Code – Rural Base Districts***

The zoning designation Exclusive Agriculture is considered a rural base district, which are subject to additional regulations regarding the type of land uses and intensity of development permitted in rural areas in a manner that implements the general plan and which protects natural resources and maintains compatibility between uses (Title C, Appendix I, Article 2, Chapter 2.20, Section 2.20.010). The purpose of the Exclusive Agriculture district, also known as the A district, is to preserve and encourage the long-term viability of agriculture and agricultural lands, recognizing the vital contributions agriculture makes to the economy and quality of life within the County. The intent of this district is to reserve those lands most suitable for agricultural production for

agricultural and appropriate related uses. This zoning district will provide stability for ongoing agricultural operations and provide for new uses necessary to support a viable local agriculture industry. This district is also intended to retain in open space uses those lands which may be suitable for future urbanization until such time as they are included within a city's urban service area, and public facilities and services can be economically provided, consistent with community plans and objectives.

Utilities are identified as being an allowable land use for the Exclusive Agriculture rural base district, being permitted with ASA (Section 2.20.020). In addition, the ordinance code states that utility structures and facilities may be exempt from local zoning regulations if they are established by a government agency. There may also be federal or state laws that provide exemptions for certain types of utilities.

***City of San José General Plan***

The City of San José General Plan was adopted on November 1, 2011, and amended on May 12, 2023. The General Plan indicates that sites in the agriculture designation are intended for a variety of agricultural uses, including grazing, dairying, raising of livestock, feedlots, orchards, row crops, nursery stock, flower growing, ancillary residential uses, ancillary commercial uses such as fruit stands, and the processing of agricultural products (City of San José, 2024).

The following relevant agricultural goals and policies from the City of San José General Plan (City of San José, 2024) were reviewed and are provided below for informational purposes.

**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.

**Policy LU-12.3** Protect and preserve the remaining farmlands within San José's sphere of influence that are not planned for urbanization in the timeframe of the Envision General Plan through the following means:

- Limit residential uses in agricultural areas to those which are incidental to agriculture.
- Restrict and discourage subdivision of agricultural lands.
- Encourage contractual protection for agricultural lands, such as Williamson Act contracts, agricultural conservation easements, and transfers of development rights.
- Prohibit land uses within or adjacent to agricultural lands that would compromise the viability of these lands for agricultural uses.
- Strictly maintain the Urban Growth Boundary in accordance with other goals and policies in this Plan.

**Policy LU-12.4** Preserve agricultural lands and prime soils in non-urban areas in order to retain the aquifer recharge capacity of these lands.

**Goal LU-20** Rural Agriculture—Provide and protect sufficient agricultural land to facilitate local food production, to provide broad community access to healthful foods, to add to a distinct community image, and to promote environmental, fiscal, and economic benefits of rural agricultural lands.

**Policy LU-20.1** Protect and preserve the remaining farmlands within San José's sphere of influence that are not planned for urbanization in the timeframe of the Envision General Plan, such as mid- and south Coyote Valley, through the following means.

- Strongly discourage conversion of agricultural lands outside the Urban Growth Boundary to non-agricultural uses.
- Restrict land uses within and adjacent to agricultural lands that would compromise the agricultural viability of these lands. Require new adjacent land uses to mitigate any impacts on the use of agricultural lands.
- Require ancillary non-agricultural land uses on agricultural lands to be ancillary to and compatible with agricultural land uses, agricultural production, and the rural character of the area, and to enhance the economic viability of agricultural operations.

**Policy LU-20.2** Preserve agricultural lands and prime soils in non-urban areas in order to provide local and regional fresh food supplies, reduce dependence on foreign products, conserve energy, and retain the aquifer recharge capacity of these lands.

**Policy EC-7.11** Require sampling for residual agricultural chemicals, based on the history of land use, on sites to be used for any new development or redevelopment to account for worker and community safety during construction. Mitigation to meet appropriate end use such as residential or commercial/industrial shall be provided.

### 5.2.3 IMPACT QUESTIONS

#### 5.2.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to agriculture and forestry resources come from the California Environmental Quality Act (CEQA), Appendix G Environmental Checklist. According to the CEQA Environmental Checklist, in determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. A project may cause a potentially significant impact if it would:

- 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; or

- Conflict with existing zoning for agricultural use, or a Williamson Act contract; or

- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code

section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)); or

- Result in the loss of forest land or conversion of forest land to non-forest use; or
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.

#### 5.2.3.2 Additional CEQA Impact Questions

Pursuant to *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing and Proponent's Environmental Assessments* (CPUC, 2019), there are no additional CEQA Impact Questions required for agriculture and forestry resources.

### 5.2.4 IMPACT ANALYSIS

#### 5.2.4.1 Agriculture and Forestry Resources Impact Analysis

**In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.**

**Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

**Less-Than-Significant Impact.** The Proposed Project would require the permanent conversion of approximately 7.4 acres of Prime Farmland to non-agricultural uses in order to accommodate the proposed Grove terminal site and ancillary facilities. Permanent conversion of agricultural land would occur because the agricultural use of the site would cease due to the construction of the new Grove terminal. The remaining acreage of the proposed Grove terminal parcel is not planned to be developed.

The proposed site for the Grove terminal is unique in comparison to other designated Prime Farmland areas because the approximately 13.6-acre site is not connected to other active agricultural areas and is instead bounded by industrial/commercial and residential uses to the north; Coyote Creek, U.S. Route 101, and Coyote Creek Parkway to the east; residential areas to the south; and Monterey Road to the west. In addition, the City of San José is currently analyzing existing and potential new uses for the properties located along the east side of Monterey Road in Coyote Valley because of this distinct character of the area, including considering the possibility of allowing uses which are more industrial or commercial in nature (City

of San José, 2023b). As part of this study, the City identified property owners who have expressed that traditional/historic agriculture uses have faced significant challenges over the years. Therefore, while the 13.6-acre site is capable of continuing agricultural production, it is not the most suitable or effective land for long-term agricultural production, regardless of the Proposed Project. Therefore, while the Proposed Project would convert designated Prime Farmland to non-agricultural uses, the impact on agricultural production in the Santa Clara Valley is minimal. Less-than-significant impacts would occur under this criterion.

**PG&E Facility Upgrades**

In order to integrate the proposed high-voltage direct current (HVDC) terminals and new Grove to Skyline 320 kV DC transmission line into the existing transmission system, Pacific Gas and Electric Company (PG&E) would be required to perform upgrades at two existing substations: modifications to the Metcalf substation and expansion of the San Jose B substation (refer to **Section 3.3.5**, *Other Potentially Required Facilities*). The PG&E facility upgrades would also include a new water line to the existing Metcalf substation, which would extend approximately 800 feet north-northeast from the Metcalf substation and connect to an existing 16-inch water main near the corner of Metcalf Road and Malech Road, which is served by the Great Oaks Water Company. These upgrades would occur within and adjacent to the existing substation facilities. The existing PG&E substations do not currently support agricultural uses, as they are active substations and completely developed. The proposed water line alignment is located within developed and disturbed areas that do not support agricultural uses. Therefore, the proposed upgrades would not convert existing, usable Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural uses. No impacts would occur.

**Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?**

**No Impact.** There are no Williamson Act contract lands within the Proposed Project site. In addition, the proposed uses of the Proposed Project are consistent with the existing zoning related to agriculture, as utilities are considered exempt uses (see **Section 5.2.1.1**, *Agricultural Resources* for more information). Therefore, the Proposed Project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and no impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. The proposed facility upgrades and water line are not located on Williamson Act contract lands, and the proposed upgrades would not change the existing use of the sites. Therefore, no impacts would occur.

**Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?**

**No Impact.** No areas of forest land, timberland, or timberland zoned Timberland Production are located within the Proposed Project area. The Proposed Project would not conflict with the zoning

or cause the rezoning of forest lands or result in the conversion of timberland. Therefore, no impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. The proposed facility upgrades and new water line are not located within forest land, timberland, or timberland zoned Timberland Production areas. Therefore, no impacts would occur.

**Would the project result in the loss of forest land or conversion of forest land to non-forest use?**

**No Impact.** No areas of forest land are located within the Proposed Project area. The Proposed Project would not result in the loss or conversion of forest land to non-forest use. Therefore, no impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. The existing PG&E substations are fully developed, mostly paved, and currently functioning substations; and the proposed water line would be constructed within an existing road right-of-way. No forest land is located within the proposed facility upgrade locations. Therefore, no impacts would occur.

**Would the project 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?**

**Less-Than-Significant Impact.** The type of vegetation and amount being removed as part of the Proposed Project is included in **Section 5.4**, *Biological Resources*. As discussed above, the Proposed Project would not result in the temporary or permanent loss of forest land. In addition, while the Proposed Project would convert designated Prime Farmland to non-agricultural uses, the impact on agricultural production in the Santa Clara Valley is minimal.

No other changes in the existing environment would result in conversion of farmland or forest land, other than those discussed above for the proposed Grove terminal site. All construction and O&M activities would remain within the Proposed Project boundary. As the Proposed Project is meeting the current electric demand of the region, it would not encourage other development in the area that could result in changes to farmland or forest land. Therefore, no impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. The existing environment within the PG&E substations is comprised of structures and facilities supporting the substation activities, with minimal existing

vegetation and no agricultural or forestry uses. The proposed area for the new water line alignment is located within an existing road right-of-way with minimal existing vegetation and no agricultural or forestry uses. The proposed upgrades would not change the existing uses of the site. Therefore, no impacts would occur.

### 5.2.5 CPUC DRAFT ENVIRONMENTAL MEASURES

There are no CPUC Draft Environmental Measures suggested for agriculture and forestry resources.

### 5.2.6 APPLICANT PROPOSED MEASURES

No Applicant Proposed Measures for agriculture and forestry resources would be implemented for the Proposed Project.

### 5.2.7 PG&E BEST MANAGEMENT PRACTICES

No agriculture or forestry resources Best Management Practices have been included for PG&E's scope of work.

## 5.3 AIR QUALITY

| Where available, the significance criteria by the applicable air quality management district or air pollution control district may be relied upon to the following determinations. Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Conflict with or obstruct implementation of the applicable air quality plan? | | | X | |
| b. | Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? | | | X | |
| c. | Expose sensitive receptors to substantial pollutant concentrations? | | | X | |
| d. | Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? | | | X | |

This section describes the existing air quality within the vicinity of the Proposed Project as well as potential impacts to air quality that could result from construction and operation and maintenance (O&M) of the Proposed Project.

### 5.3.1 ENVIRONMENTAL SETTING

The Proposed Project is located in the City of San José and the County of Santa Clara and encompasses three zonal areas to include two new high-voltage direct current (HVDC) terminals and associated transmission lines between the existing Pacific Gas and Electric Company (PG&E) San Jose B substation and the existing PG&E Metcalf substation, which are separated by approximately 13 miles.

#### Skyline Terminal and San Jose B Substation Zone

The Proposed Project seeks to construct the Skyline terminal immediately south of the existing PG&E San Jose B substation, which would encompass a portion of an approximately 10.6-acre vacant site. The proposed Skyline terminal is located within the City of San José and is zoned for Downtown Primary Commercial uses. The proposed Skyline terminal is located immediately west of State Route (SR)-87, which separates the proposed Skyline terminal from multi-family residential units to the east. The proposed Skyline terminal is located north of an existing rail line, which separates the proposed Skyline terminal from commercial office space further to the south. To the west of the proposed Skyline terminal is the Guadalupe River Park and Trail and beyond exists a commercial retail development. Aerial images showing the proposed Skyline terminal and the existing San Jose B substation zone are provided in **Figures 3-4**, *Project Route Map* and **3-7**, *HVDC Terminal General Arrangements*.

**Grove Terminal and Metcalf Substation Zone**

The Proposed Project seeks to construct the Grove terminal approximately 0.65 mile south of the existing Metcalf substation. The proposed Grove terminal would be constructed on a vacant property used primarily for agricultural uses and would encompass a portion of the approximately 13.6-acre site. The proposed Grove terminal site is located along Monterey Road and consists of four parcels that are within the City of San José or the County of Santa Clara.

Surrounding land uses consist of office and industrial uses to the northwest; open space, Coyote Creek Parkway, and U.S. Route 101 to the northeast; disturbed land from a past orchard and a couple of residential structures to the east and southeast; and agricultural uses to the southwest. Aerial images showing the proposed Grove terminal and the existing Metcalf substation zone are provided in **Figures 3-4** and **3-7**.

**Transmission Line Zone**

The proposed Grove to Skyline 320 kilovolt (kV) direct current (DC) transmission line is predominately located within the City of San José and would connect the new Grove terminal to the new Skyline terminal. The proposed transmission line would be almost exclusively located within existing roadways, including Monterey Road, First Street, Market Street, Little Market Street and Bassett Street. The proposed Metcalf to Grove 500 kV transmission line would predominantly be located within Coyote Ranch Road as well as a short section in Coyote Creek Trail and an developed portion of Coyote Creek Parkway, within the City of San José and County of Santa Clara. The proposed Skyline to San Jose B 115 kV station tie line is located in the City of San José, wholly contained within the adjacent Skyline terminal and the existing substation sites. Aerial images showing the proposed transmission line alignments are provided in **Figures 3-3**, *Project Overview* and **3-4**.

#### 5.3.1.1 Air Quality Plans

The State of California has 35 specific air districts, which are each responsible for ensuring that the criteria pollutants are below the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS). Air basins that exceed either the NAAQS or the CAAQS for any criteria pollutants are designated as "non-attainment areas" for that pollutant. Currently, there are 15 non-attainment areas for the federal ozone standard and two non-attainment areas for particulate matter (PM) 2.5 micron and smaller standard, and many areas are in non-attainment for PM10 micron and smaller standard as well. California, therefore, created the California State Implementation Plan (SIP), which is designed to provide control measures needed to attain ambient air quality standards.

The Proposed Project encompasses various areas located within the County of Santa Clara and the City of San José, which are located within the Bay Area Air Quality Management District (BAAQMD) jurisdictional entity that is responsible for implementing the SIP. The BAAQMD developed an air quality management plan along with ambient air quality standards for ozone ($O_3$), carbon monoxide (CO), particulate matter (PM10), and certain toxic air pollutants (BAAQMD, 2017) and attainment of pollutants. The attainment status of pollutants managed by the BAAQMD are shown in **Table 5.3-1**, *BAAQMD Attainment Status by Pollutant*.

| Table 5.3-1: BAAQMD Attainment Status by Pollutant | | |
|---|---|---|
| **Criteria Pollutant** | **Federal Designation** | **State Designation** |
| Ozone (8-Hour) | Non-attainment | Non-attainment |
| PM10 | Unclassified | Non-attainment |
| PM2.5 | Unclassified/Attainment | Non-attainment |
| Carbon Monoxide | Attainment | Attainment |
| Nitrogen Dioxide | Attainment | Attainment |
| Sulfur Dioxide | Status Not Reported | Attainment |
| Lead | Unclassified/Attainment | Attainment |
| Hydrogen Sulfide | No Federal Standard | Unclassified |
| Sulfates | No Federal Standard | Attainment |
| Visibility | No Federal Standard | Unclassified |
| Source: BAAQMD, 2017 | | |

### 5.3.1.2 Air Quality

#### Naturally Occurring Asbestos

The Proposed Project is located in a region with known encounters of naturally occurring asbestos (NOA) (United States Geological Survey [USGS]; California Geological Survey, 2011). Asbestos is a term used for a group of silicate minerals that occur as asbestiform fibers having high tensile strength, flexibility, and heat and chemical resistance (California Department of Conservation [DOC], 2024). Asbestos is commonly found in ultramafic rock, which is present in the Proposed Project vicinity, and near fault zones. When rock containing asbestos is broken or crushed, asbestos fibers may be released and become airborne, which presents significant risks to human health when inhaled. The USGS, CGS, and DOC have developed a map of ultramafic rock outcrops in California where NOA is likely to be present. Portions of the proposed Grove to Skyline 320 kV DC alignment on Monterey Road would overlap with areas with potential for NOA. As discussed further below, the California Air Resources Board (CARB) regulates asbestos emissions with two Airborne Toxic Control Measures (ATCMs) to minimize the release of asbestos fibers during activities involving the handling of asbestos.

#### Criteria Pollutants

The Proposed Project is located within the San Fransisco Air Basin (SFAB). Criteria pollutants are measured using monitoring equipment in various locations (stations) throughout the SFAB. This data is used to determine attainment status when compared to the NAAQS and CAAQS. The BAAQMD is responsible for monitoring and reporting monitoring data, and California Air Resources Board (CARB) data is updated yearly (CARB, 2020). **Table 5.3-2**, *Three-Year Ambient Air Quality Summary SFAB*, identifies the criteria pollutants monitored by BAAQMD within both the County of Santa Clara and the City of San José.

| Table 5.3-2: Three-Year Ambient Air Quality Summary SFAB | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Pollutant** | **Closest Recorded Ambient Monitoring Site** | **Averaging Time** | **CAAQS** | **NAAQS** | **2020** | **2021** | **2022** |
| $O_3$ (parts per million [ppm]) | SFAB | 1 Hour | 0.09 ppm | No Standard | 0.116 | 0.113 | 0.122 |
| | | 8 Hour | 0.070 ppm | 0.070 ppm | 0.092 | 0.086 | 0.079 |
| PM10 (µg/m3) | | 24 Hour | 50 µg/m3 | 150 µg/m3 | 165.4 | 42.8 | 41.1 |
| | | Annual Arithmetic Mean | 20 µg/m3 | No Standard | 23.3 | 20.1 | 21.3 |
| PM2.5 (µg/m3) | | 24 Hour | No Standard | 35 µg/m3 | 167.7 | 45.0 | 37.3 |
| | | Annual Arithmetic Mean | 12 µg/m3 | 15 µg/m3 | 12.5 | 10.9 | 10.1 |
| Nitrogen Dioxide ($NO_2$) (ppm) | | Annual Arithmetic Mean | 0.030 ppm | 0.053 ppm | 0.013 | 0.012 | 0.013 |
| | | 1 Hour | 0.18 ppm | 0.100 ppm | 0.065 | 0.051 | 0.051 |
| Source: CARB, 2023a | | | | | | | |

### 5.3.1.3 Sensitive Receptor Locations

**Skyline Terminal and San Jose B Substation**

A graphical representation of the proposed Skyline terminal and the existing San Jose B substation sites are shown in **Figure 5.3-1**, *Skyline Terminal and San Jose B Substation Nearby Sensitive Receptor Locations Map.* Receptor locations 1 through 3 represent the closest sensitive receptor locations (residences) to the proposed Skyline terminal and the existing San Jose B substation sites.

**Grove Terminal**

A graphical representation of the proposed Grove terminal site is shown in **Figure 5.3-2**, *Grove Terminal Nearby Sensitive Receptor Locations Map.* For the purposes of CalEEMod modeling, Receptor location 2 was analyzed as a receptor as it appeared to be a single-family residence at the time of modeling. However, based on further site surveys, the structure is not a habitable structure and is utilized for storage. Thus, Receptor location 2 has been excluded from this analysis as it would not be considered a sensitive receptor. Receptor locations 1, 3, and 4 represent the closest sensitive receptor locations (residences) identified near the proposed Grove terminal site. Note there are no sensitive receptors in the immediate vicinity of the existing Metcalf substation.

**Transmission Line Alignment**

Construction of the proposed transmission lines would occur along the alignment shown in **Figures 3-3** and **3-4**. Due to the quick transitory movement for work within the proposed transmission line corridor, equipment would be moving linearly over short durations at any given location. Given this, sensitive receptors located near the fixed construction areas (proposed HVDC terminals and existing substations) would be considered worst-case, and any short-term air quality emissions demonstrated at these locations shown in **Figures 5.3-1** and **5.3-2** could be assumed to represent any potential receptors on the alignment. No long-term air quality impacts, such as health risk, would be anticipated to occur along the proposed transmission line routes because construction activities would only occur in proximity to individual receptors for short periods of time.

**Staging Areas**

Construction equipment along the proposed transmission line corridor would be temporarily stored within staging areas along the alignment. While no significant construction activities would occur at staging areas, storage and use of a crane and rough terrain forklift would be anticipated for temporary storing and movement of materials. Given this, sensitive receptors located near the fixed construction areas (proposed HVDC terminals and existing substations) would be considered worst-case, and any short-term air quality emissions demonstrated at the receptor locations shown in **Figures 5.3-1** and **5.3-2** could be assumed to represent any potential receptors on the alignment. Therefore, no long-term air quality impacts, such as health risk, would be anticipated at the staging areas.

### 5.3.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 5.3.2.1 Air Quality Regulatory Setting

**Federal**

***Federal Clean Air Act***

The Federal Air Quality Standards were developed per the requirements of the Federal Clean Air Act (CAA), which is a federal law that was passed in 1970 and further amended in 1990. This law provides the basis for the national air pollution control effort. An important element of the CAA included the development of NAAQS for major air pollutants.

The CAA established two types of air quality standards, otherwise known as primary and secondary standards. Primary standards set limits for the intention of protecting public health, which includes sensitive populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare to include the protection against decreased visibility, damage to animals, crops, vegetation, and buildings.

The Environmental Protection Agency (EPA) Office of Air Quality Planning and Standards has set NAAQS for principal pollutants, which are called "criteria" pollutants. These pollutants are defined below:

- **Carbon Monoxide (CO)** is a colorless, odorless, and tasteless gas and is produced from the partial combustion of carbon-containing compounds, notably in internal-combustion engines. CO usually forms when there is a reduced availability of oxygen present during the combustion process. Exposure to CO near the levels of the ambient air quality standards can lead to fatigue, headaches, confusion, and dizziness. CO interferes with the blood's ability to carry oxygen.

- **Lead (Pb)** is a potent neurotoxin that accumulates in soft tissues and bone over time. The major sources of lead emissions have historically been motor vehicles (such as cars and trucks) and industrial sources. Because lead is only slowly excreted, exposures to small amounts of lead from a variety of sources can accumulate to harmful levels. Effects from inhalation of lead near the level of the ambient air quality standard include impaired blood formation and nerve conduction. Lead can adversely affect the nervous, reproductive, digestive, immune, and blood-forming systems. Symptoms can include fatigue, anxiety, short-term memory loss, depression, weakness in the extremities, and learning disabilities in children.

- **Nitrogen Dioxide ($NO_2$)** is a reactive, oxidizing gas capable of damaging cells lining the respiratory tract and is one of the nitrogen oxides emitted from high-temperature combustion, such as those occurring in trucks, cars, power plants, home heaters, and gas stoves. In the presence of other air contaminants, $NO_2$ is usually visible as a reddish-brown air layer over urban areas. $NO_2$ along with other traffic-related pollutants is associated with respiratory symptoms, respiratory illness, and respiratory impairment. Studies in animals have reported biochemical, structural, and cellular changes in the lung when exposed to $NO_2$ above the level of the current state air quality standard. Clinical studies of human subjects suggest that $NO_2$ exposure to levels near the current standard may worsen the effect of allergens in allergic asthmatics, especially in children.

- **Particulate Matter (PM10 or PM2.5)** is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary in shape, size, and chemical composition and can be made up of multiple materials, such as metal, soot, soil, and dust. PM10 particles are 10 microns (µm) or less and PM2.5 particles are 2.5 µm or less. These particles can contribute significantly to regional haze and reduction of visibility in California. Exposure to PM levels exceeding current air quality standards increases the risk of allergies, such as asthma and respiratory illness.

- **Ozone ($O_3$)** is a highly oxidative unstable gas capable of damaging the linings of the respiratory tract. This pollutant forms in the atmosphere through reactions between chemicals directly emitted from vehicles, industrial plants, and many other sources. Exposure to ozone above ambient air quality standards can lead to human health effects, such as lung inflammation, tissue damage, and impaired lung functioning. Ozone can also damage materials such as rubber, fabrics, and plastics.

- **Sulfur Dioxide ($SO_2$)** is a gaseous compound of sulfur and oxygen and is formed when sulfur-containing fuel is burned by mobile sources, such as locomotives, ships, and off-road diesel equipment. $SO_2$ is also emitted from several industrial processes, such as petroleum refining and metal processing. Effects from $SO_2$ exposures at levels near the one-hour standard include bronchoconstriction accompanied by symptoms, which may include wheezing, shortness of breath, and chest tightness, especially during exercise or physical activity. Children, the elderly, and people with asthma, cardiovascular disease, or chronic lung disease (such as bronchitis or emphysema) are most susceptible to these symptoms. Continued exposure at elevated levels of $SO_2$ results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality.

**State**

***California Air Resources Board***

CARB sets the laws and regulations for air quality on the state level. CAAQS is similar to the NAAQS and also restricts four additional contaminants. **Table 5.3-3**, *Ambient Air Quality Standards* below identifies both the NAAQS and CAAQS.

The additional contaminants as regulated by the CAAQS are defined below:

- **Visibility Reducing Particles** are particles in the air that obstruct visibility.

- **Sulfates** are salts of Sulfuric Acid. Sulfates occur as microscopic particles (aerosols) resulting from fossil fuel and biomass combustion. They increase the acidity of the atmosphere and form acid rain.

- **Hydrogen Sulfide ($H_2S$)** is a colorless, toxic, and flammable gas with a recognizable smell of rotten eggs or flatulence. $H_2S$ occurs naturally in crude petroleum, natural gas, volcanic gases, and hot springs. Usually, $H_2S$ is formed from bacterial breakdown of organic matter. Exposure to low concentrations of $H_2S$ may cause irritation to the eyes, nose, or throat. It may also cause difficulty in breathing for some asthmatics. Brief exposures to high concentrations of $H_2S$ (greater than 500 parts per million [ppm] can cause a loss of consciousness and possibly death.

  **Vinyl Chloride**, also known as chloroethene, is a toxic, carcinogenic, colorless gas with a sweet odor. It is an industrial chemical mainly used to produce its polymer, polyvinyl chloride (PVC).

**Table 5.3-3: Ambient Air Quality Standards**

| Pollutant | Duration | California Standards[1] | | Federal Standards[2] | | |
|---|---|---|---|---|---|---|
| | | Concentration[3] | Method[4] | Primary[3,5] | Secondary[3,6] | Method[7] |
| Ozone ($O_3$)[8] | 1 Hour | 0.09 ppm (180 µg/ m3) | Ultraviolet Photometry | - | Same as Primary Standard | Ultraviolet Photometry |
| | 8 Hour | 0.070 ppm (137 µg/m3) | | 0.070 ppm (137 µg/m3) | | |
| Respirable Particulate Matter (PM10)[9] | 24 Hour | 50 µg/m3 | Gravimetric or Beta Attenuation | 150 µg/m3 | Same as Primary Standard | Inertial Separation and Gravimetric Analysis |
| | Annual Arithmetic Mean | 20 µg/m3 | | - | | |
| Fine Particulate Matter (PM2.5)[9] | 24 Hour | No Separate State Standard | | 35 µg/m3 | Same as Primary Standard | Inertial Separation and Gravimetric Analysis |
| | Annual Arithmetic Mean | 12 µg/m3 | Gravimetric or Beta Attenuation | 12 µg/m3 | 15 µg/m3 | |
| Carbon Monoxide (CO) | 8 hour | 9.0 ppm (10mg/m3) | Non-Dispersive Infrared Photometry (NDIR) | 9 ppm (10 mg/m3) | - | Non-Dispersive Infrared Photometry |
| | 1 hour | 20 ppm (23 mg/m3) | | 35 ppm (40 mg/m3) | | |
| Nitrogen Dioxide ($NO_2$)[10] | Annual Arithmetic Mean | 0.030 ppm (57 µg/m3) | Gas Phase Chemiluminescence | 0.053 ppm (100 µg/m3)[8] | Same as Primary Standard | Gas Phase Chemiluminescence |
| | 1 Hour | 0.18 ppm (339 µg/m3) | | 0.100 ppm[8] (188/ µg/m3) | - | |
| Sulfur Dioxide ($SO_2$)[11] | Annual Arithmetic Mean | - | Ultraviolet Fluorescence | 0.030 ppm[10] (for Certain Areas) | - | Ultraviolet Flourescence; Spectrophotometry (Pararoosaniline Method)[9] |
| | 24 Hour | 0.04 ppm (105 µg/m3) | | 0.14 ppm[10] (for Certain Areas) (See Footnote 9) | - | |
| | 3 Hour | - | | - | 0.5 ppm (1300 µg/m3) | |
| | 1 Hour | 0.25 ppm (655 µg/m3) | | 75 ppb (196 µg/m3) | - | |
| Lead[12,13] | 30 Day Average | 1.5 µg/m3 | Atomic Absorption | - | | - |
| | Calendar Quarter | - | | 1.5 µg/m3 | Same as Primary Standard | High Volume Sampler and Atomic Absorption |
| | Rolling 3-Month Average | - | | 0.15 µg/m3 | | |
| Visibility Reducing Particles | 8 Hour | See footnote 14 | | | | |
| Sulfates | 24 Hour | 25 µg/m3 | Ion Chromatography | | | |
| Hydrogen Sulfide | 1 Hour | 0.03 ppm (42 µg/m3) | Ultraviolet Fluorescence | | | |
| Vinyl Chloride[12] | 24 Hour | 0.01 ppm (26 µg/m3) | Gas Chromatography | | | |

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m3 is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m3 to 12.0 µg/m3. The existing national 24- hour PM2.5 standards (primary and secondary) were retained at 35 µg/m3, as was the annual secondary standard of 15 µg/m3. The existing 24-hour PM10 standards (primary and secondary) of 150 µg/m3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour $SO_2$ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 $SO_2$ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated non-attainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated non-attainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general Statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the Statewide and Lake Tahoe Air Basin standards, respectively.

CARB, 2016

### *CARB ATCMs for NOA*

CARB and the U.S. EPA have identified asbestos as a toxic air contaminant (TAC) and hazardous air pollutant, respectively. Asbestos is a term used for several types of naturally-occurring fibrous minerals found in many parts of California. Asbestos is commonly found in ultramafic rock, which is present in the Proposed Project vicinity, and near fault zones. When rock containing asbestos is broken or crushed, asbestos fibers may be released and become airborne. Sources of asbestos emissions include unpaved roads or driveways surfaced with ultramafic rock, construction activities in ultramafic rock deposits, or rock quarrying activities where ultramafic rock is present. Asbestos emissions present a significant risk to human health on a Statewide and local level (CARB, 2024).

CARB identified asbestos as a TAC in 1986. Subsequently, CARB has adopted two ATCMs to address the health concerns associated with exposure to asbestos and minimize the release of asbestos fibers during activities involving the handling of asbestos:

- **ATCM for Surfacing Applications (adopted in 1990).** This ATCM is designed to reduce public exposure to elevated levels of asbestos from unpaved surfaces such as unpaved roads, parking lots, driveways, and walkways.

- **ATCM for Construction, Grading, Quarrying, and Surface Mining Operations (adopted in 2001).** This ATCM requires the implementation of best available dust mitigation measures at road construction, maintenance activities, construction, grading, quarrying and surface mining operations in areas where NOA is found or likely to be found.

The U.S. EPA requires specific work practices to control the release of asbestos fibers relating to a renovation and/or demolition activity. In California, the U.S. EPA delegates enforcement authority to CARB for renovation and/or demolition activities that involve the handling of asbestos.

### *Assembly Bill 203*

Assembly Bill (AB) 203 is an amendment to the California Labor Code that addresses worker awareness training relating to Valley fever. Specifically, AB 203 requires construction employers who work in counties with high rates of Valley fever (i.e., endemic counties) to train their employees on awareness and minimizing the risks of Valley fever (State of California, 2019).

## Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, "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 the City of San José and the County of Santa Clara do not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed

Project is not subject to local land use and zoning regulations or discretionary permits. This section includes a summary of local air quality-related policies, plans, or programs for informational purposes. Although LS Power Grid California, LLC ("LS Power") is not subject to local discretionary permitting, ministerial permits would be secured as appropriate.

### *Governing General Plan*

The Proposed Project is located within the County of Santa Clara and the City of San José. The County and City both provide general jurisdictional guidance (General Plan) for land development planning as necessary to meet regulatory requirements into the future. The County of Santa Clara's General Plan was prepared in 1994 and was amended to address health (County of Santa Clara, 1994) aimed at reducing air emissions. The City of San José has a General Plan adopted in 2011 and amended in 2023. This document outlines the growth through 2040 (City of San Jose, 2024). Each plan has policies designed to improve air quality within the region and are outlined below.

### *County of Santa Clara General Plan*

Section G of the Health Element (HE) of the County of Santa Clara General Plan addresses air quality and climate change (County of Santa Clara, 2023). This document includes several air quality-related policies that pertain to this Proposed Project located within the County.

**Policy HE-G.1** Air quality environmental review. Continue to utilize and comply with the Air District's project- and plan-level thresholds of significance for air pollutants and greenhouse gas emissions.

**Policy HE-G.2** Coordination with regional agencies. Coordinate with the Air District to promote and implement stationery and area source emission measures.

**Policy HE-G.3** Fleet upgrades. Promote Air District mobile source measures to reduce emissions by accelerating the replacement of older, dirtier vehicles and equipment, and by expanding the use of zero emission and plug-in vehicles.

**Policy HE-G.4** Off-road sources. Encourage mobile source emission reduction from offroad equipment such as construction, farming, lawn, and garden, and recreational vehicles by retrofitting, retiring, and replacing equipment and by using alternate fuel vehicles.

**Policy HE-G.7** Sensitive receptor uses. Promote measures to protect sensitive receptor uses, such as residential areas, schools, day care centers, recreational playfields and trails, and medical facilities by locating uses away from major roadways and stationary area sources of pollution, where possible, or incorporating feasible, effective mitigation.

### *City of San José General Plan*

The City of San José's General Plan addresses air quality and climate change (City of San José, 2024). The General Plan sets guiding policies for minimizing impacts on resources and ensuring

that the City of San José is able to maintain the infrastructure and services necessary to sustain its economy and quality of life.

**Policy MS-10.1** Assess projected air emissions from new development in conformance with the BAAQMD California Environmental Quality Act (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-10.5** In order to reduce vehicle miles traveled and traffic congestion, require new development within 2,000 feet of an existing or planned transit station to encourage the use of public transit and minimize the dependence on the automobile through the application of site design guidelines and transit incentives.

**Policy MS-10.6** Encourage mixed land use development near transit lines and provide retail and other types of service-oriented uses within walking distance to minimize automobile dependent development.

**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-10.9** Foster educational programs about air pollution problems and solutions.

**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-10.11** Enforce the City's wood-burning appliance ordinance to limit air pollutant emissions from residential and commercial buildings.

**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-10.13** As a part of City of San José Sustainable City efforts, educate the public about air polluting household consumer products and activities that generate air pollution. Increase public awareness about the alternative products and activities that reduce air pollutant emissions.

**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-11.1** Require completion of air quality modeling for sensitive land uses such as new residential developments that are located near sources of pollution such as freeways and industrial uses. Require new residential development projects and projects categorized as sensitive receptors to incorporate effective mitigation into project designs or be located an adequate distance from sources of TACs to avoid significant risks to health and safety.

**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, new projects (such as, but not limited to, industrial, manufacturing, and processing facilities) that are sources of TACs to be located an adequate distance from residential areas and other sensitive receptors.

**Policy MS-11.3** Review projects generating significant heavy duty truck traffic to designate truck routes that minimize exposure of sensitive receptors to TACs and particulate matter.

**Policy MS-11.4** Encourage the installation of appropriate air filtration at existing schools, residences, and other sensitive receptor uses adversely affected by pollution sources.

**Policy MS-11.5** Encourage the use of pollution absorbing trees and vegetation in buffer areas between substantial sources of TACs and sensitive land uses.

**Policy MS-11.6** Develop and adopt a comprehensive Community Risk Reduction Plan that includes baseline inventory of TACs and PM2.5, emissions from all sources, emissions reduction targets, and enforceable emission reduction strategies and performance measures. The Community Risk Reduction Plan will include enforcement and monitoring tools to ensure regular review of progress toward the emission reduction targets, progress reporting to

the public and responsible agencies, and periodic updates of the plan, as appropriate.

**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-11.8** For new projects that generate truck traffic, require signage which reminds drivers that the State truck idling law limits truck idling to five minutes.

**Policy MS-12.1** For new, expanded, or modified facilities that are potential sources of objectionable odors (such as landfills, green waste and resource recovery facilities, wastewater treatment facilities, asphalt batch plants, and food processors), the City requires an analysis of possible odor impacts and the provision of odor minimization and control measures as mitigation.

**Policy MS-12.2** Require new residential development projects and projects categorized as sensitive receptors to be located an adequate distance from facilities that are existing and potential sources of odor. An adequate separation distance will be determined based upon the type, size, and operations of the facility.

**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 ATCMs for Construction, Grading, Quarrying, and Surface Mining Operations.

**Policy MS-13.3** Require subdivision designs and site planning to minimize grading and use landform grading in hillside areas.

**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.

### *Bay Area Air Quality Management District Significance Thresholds*

The BAAQMD has established significance thresholds for Criteria Pollutants for use within the County of Santa Clara including many cities within the BAAQMD boundaries. These thresholds can be used to demonstrate that a project's total emissions would not result in a significant impact as defined by CEQA. These significance thresholds for construction and daily operations are shown in **Table 5.3-4**, *County of Santa Clara BAAQMD Significance Thresholds for Criteria Pollutants* (BAAQMD, 2022).

Non-criteria pollutants such as Hazardous Air Pollutants (HAP) or TACs are also regulated by BAAQMD for operational fixed-source emission generators. These are broken out into carcinogens and non-carcinogens (acute and chronic). A project's fixed-source operations which increases the cancer risk to greater than one per one million exposed would be required to install Best Available Control Technology (T-BACT) equipment. The Proposed Project would not install any stationary emissions source equipment, so a less-than-significant health risk is expected during operations. Diesel Particulate Matter (DPM) is a known carcinogen and can increase health hazards when a person is exposed. DPM would be expected on a short-term basis during construction and is further analyzed below.

In addition, the BAAQMD indicates that odor impacts could occur if the project proposes a new odor source near existing receptors. Projects that expect to generate odors need to disclose this and provide analysis demonstrating that odor impacts would not exist at the property line.

**Table 5.3-4: County of Santa Clara BAAQMD Significance Thresholds for Criteria Pollutants**

| Criteria Air Pollutants and Precursors (Regional) | Construction Related | Operational | |
|---|---|---|---|
| | Average Daily Emissions (lb/day) | Average Daily Emissions (lb/day) | Annual Average Emissions (tons per year [tpy]) |
| Reactive Organic Gases (ROG) | 54 | 54 | 10 |
| $NO_2$ | 54 | 54 | 10 |
| PM10 | 82 (Exhaust) | 82 | 15 |
| PM2.5 | 54 (Exhaust) | 54 | 10 |
| PM10/PM2.5 (Fugitive Dust) | Best Management Practices | None | |
| Local CO | None | 9.0 ppm (8-hour average), 20.0 ppm (1-hour average) | |
| **Health Risks and Hazards** | **Individual Project** | **Cumulative** | |
| Increased Cancer Risk | >10.0 individuals per one million exposed | >100 individuals per one million exposed | |
| Increased Non-Cancer Hazard (Acute or Chronic) | >1.0 | >10.0 | |
| Incremental Annual PM2.5 | >0.3 µg/m3 | >0.8 µg/m3 | |

Source: BAAQMD, 2022

#### 5.3.2.2 Air Permits

The Proposed Project does not propose any stationary emission source equipment and would, therefore, not require any air quality permits.

### 5.3.3 IMPACT QUESTIONS

#### 5.3.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to air quality come from the CEQA, Appendix G Environmental Checklist. Where available, the significance criteria by the applicable air quality management district or air pollution control district may be relied upon to the following determinations. According to the CEQA Environmental Checklist, a project may cause a potentially significant impact if it would:

- Conflict with or obstruct implementation of the applicable air quality; or
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard; or
- Expose sensitive receptors to substantial pollutant concentrations; or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

#### 5.3.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing Proponent's Environmental Assessments* (CPUC, 2019), there are no additional CEQA Impact Questions required for air quality.

### 5.3.4 IMPACT ANALYSIS

#### 5.3.4.1 Air Quality Impact Analysis

**Would the project conflict with or obstruct implementation of the applicable air quality plan?**

**Less-Than-Significant Impact.** The BAAQMD has developed an air quality plan consistent with California's SIP. As part of the plan, projects are required to show that project-related emissions would generate less-than-significant air quality emissions.

Potential air quality impacts related to the Proposed Project construction and operations were calculated using the latest California Emissions Estimator Model (CalEEMod) (Version 2022.1) air quality model, which was developed by South Coast Air Quality Management District (SCAQMD) in 2022. Since the Proposed Project is spread out over a large geographical area, it was analyzed in three parts, which include the proposed Skyline terminal, Grove terminal, and transmission line alignment in general. The CalEEMod input/output model for each specific area

is provided as Attachments 1A, 1B, and 1C in **Appendix 5.3-A**, *Air Quality and GHG Modeling Files*.

Health risks and hazard increases related to DPM were calculated using emission concentrations calculated by Air Quality Dispersion Modeling (AERMOD), which is a dispersion model software prepared by the U.S. EPA. DPM concentrations at the nearest residential locations closest to the proposed Skyline and Grove terminals are provided at each of the locations shown in **Figures 5.3-1** and **5.3-2**. The AERMOD input/output model for each specific area is provided as Attachments 2A and 2B in **Appendix 5.3-A**.

Once the dispersed concentrations of DPM are estimated in the surrounding air, they are used to evaluate estimated risks to people including sensitive residential receptors and also off-site worker receptors. The Office of Environmental Health Hazard Assessment (OEHHA) recommends different methodologies for both types of receptors, which include age sensitivity factors from the third trimester to 70 years old, exposure durations, breathing rates, and averaging time. Worker receptors are assumed to be at least 16 years of age and would be limited to exposure for only the workday.

Chronic non-cancer risks are also known with respect to DPM and are determined by the hazard index. To calculate the hazard index, DPM concentration is divided by its chronic Reference Exposure Levels (REL), which is five µg/m3 (OEHHA, 2015). Since all calculated exposure levels are less than five µg/m3, the hazard index would be less than one, and a less-than-significant non-cancer risk is expected. Cancer risk outputs, as well as AERMOD concentration levels used in the analysis, are provided in Attachments 3A and 3B in **Appendix 5.3-A**.

The Proposed Project plans to start grading and construction in 2026, with work assumed to be scheduled to occur six days per week and be completed in 2028. Material hauling/truck details along with worker trips are provided in **Section 3.0**, *Proposed Project Description* (see **Table 3-6**, *Estimated Average Daily Construction Traffic)* and was manually updated within the CalEEMod software. **Appendix 5.3-A** includes detailed equipment and usage as provided by the Proposed Project engineer. In addition, the CARB regulations require that, starting in 2012, off-road equipment produced needs to meet the basic requirements for Tier 4 compliance (CARB, 2023b). Off-road equipment fleets are managed by CARB and are typically based on total horsepower owned. Owners are limited to what types of equipment they must maintain as their fleet and can include equipment from rental companies. For this reason, it is assumed that the Proposed Project equipment would conservatively be made up of at least 75 percent Tier 4 during the construction years of 2026 through 2028. This assumption is viable and would be reasonably achievable because most equipment operators already maintain fleets consisting of mostly Tier 4 equipment. **Applicant Proposed Measure (APM) AQ-1**, *Construction Fleet Minimum Requirements and Tracking* has been incorporated into the Proposed Project to ensure that the assumed construction fleet specifications are tracked and achieved consistent with the analysis.

**Table 5.3-5**, *Expected Construction Emissions Summary (Pounds per Day) – Skyline Terminal and San Jose B Substation* summarizes the construction emissions in pounds per day at the proposed Skyline terminal and the existing San Jose B substation zone based on the construction activities and equipment identified in **Section 3.0** and **Appendix 5.3-A**. Based on the modeling for the unmitigated case, the Proposed Project would not exceed BAAQMD significance thresholds. It is assumed that the Proposed Project would implement Best Management Practices (BMPs) consistent with BAAQMD Guidelines during construction to reduce fugitive dust generation. This would, at a minimum, include wetting exposed soils, sweeping dirt and debris

from the Proposed Project site, and implementing measures to reduce trucks from bringing dirt onto the City of San José and the County of Santa Clara roadways.

**Table 5.3-5: Expected Construction Emissions Summary (Pounds per Day) – Skyline Terminal and San Jose B Substation**

| | ROG | $NO_x$ | PM10 (Exhaust) | PM2.5 (Exhaust) |
|---|---|---|---|---|
| Average Maximum Daily Emissions | 1.45 | 13.6 | 0.32 | 0.30 |
| BAAQMD Air Quality Thresholds | 54 | 54 | 82 | 54 |
| **Exceeds Thresholds?** | ***NO*** | ***NO*** | ***NO*** | ***NO*** |

**Table 5.3-6**, *Expected Construction Emissions Summary (Pounds per Day) – Grove Terminal and Metcalf Substation* summarizes the construction emissions in pounds per day at the proposed Grove terminal and the existing Metcalf substation zone based on the construction activities and equipment identified in **Section 3.0** and **Appendix 5.3-A**. Based on the modeling for the unmitigated case, the Proposed Project would not exceed BAAQMD significance thresholds. It is assumed that the Proposed Project would implement BMPs consistent with BAAQMD Guidelines during construction to reduce fugitive dust generation. This would, at a minimum, include wetting exposed soils, sweeping dirt and debris from the Proposed Project site, and implementing measures to reduce trucks from bringing dirt onto the City of San José and the County of Santa Clara roadways.

**Table 5.3-6: Expected Construction Emissions Summary (Pounds per Day) – Grove Terminal and Metcalf Substation**

| | ROG | $NO_x$ | PM10 (Exhaust) | PM2.5 (Exhaust) |
|---|---|---|---|---|
| Average Maximum Daily Emissions | 0.86 | 9.48 | 0.18 | 0.17 |
| BAAQMD Air Quality Thresholds | 54 | 54 | 82 | 54 |
| **Exceeds Thresholds?** | ***NO*** | ***NO*** | ***NO*** | ***NO*** |

**Table 5.3-7**, *Expected Construction Emissions Summary (Pounds per Day) – Transmission Lines* summarizes the construction emissions in pounds per day within the proposed transmission line zone based on the construction activities and equipment identified in **Section 3.0** and **Appendix 5.3-A**. Based on the modeling for the unmitigated case, the Proposed Project would not exceed BAAQMD significance thresholds. It is assumed that the Proposed Project would implement BMPs consistent with BAAQMD Guidelines during construction to reduce fugitive dust generation. This would, at a minimum, include wetting exposed soils, sweeping dirt and debris from the Proposed Project site, and implementing measures to reduce trucks from bringing dirt onto the City of San José and the County of Santa Clara roadways.

| Table 5.3-7: Expected Construction Emissions Summary (Pounds per Day) – Transmission Lines | | | | |
|---|---|---|---|---|
| | **ROG** | **$NO_x$** | **PM10 (Exhaust)** | **PM2.5 (Exhaust)** |
| Average Maximum Daily Emissions | 2.87 | 24.3 | 0.62 | 0.59 |
| BAAQMD Air Quality Thresholds | 54 | 54 | 82 | 54 |
| **Exceeds Thresholds?** | ***NO*** | ***NO*** | ***NO*** | ***NO*** |

Regional emissions from all three construction zones could be considered additive even though the construction of the proposed Skyline and Grove terminals are located approximately 13 miles apart with the proposed transmission lines geographically between the two terminals. For purposes of this analysis, however, emissions from all three areas are added and shown in **Table 5.3-8**, *Combined Expected Construction Emissions Summary (Pounds per Day).* Based on the expected emissions output, the cumulative unmitigated emissions would not exceed BAAQMD thresholds.

| Table 5.3-8: Combined Expected Construction Emissions Summary (Pounds per Day) | | | | |
|---|---|---|---|---|
| | **ROG** | **$NO_x$** | **PM10 (Exhaust)** | **PM2.5 (Exhaust)** |
| Skyline Terminal Construction | 1.45 | 13.6 | 0.32 | 0.30 |
| Grove Terminal Construction | 0.86 | 9.48 | 0.18 | 0.17 |
| Transmission Line Construction | 2.87 | 24.3 | 0.62 | 0.59 |
| **Combined Total Emissions** | **5.18** | **47.38** | **1.12** | **1.06** |
| BAAQMD Air Quality Thresholds | 54 | 54 | 82 | 54 |
| **Exceeds Thresholds?** | ***NO*** | ***NO*** | ***NO*** | ***NO*** |

Therefore, the Proposed Project construction would not conflict with any air quality management plans, and construction-related impacts would be less than significant under this criterion.
The Proposed Project would implement **APM AQ-2**, *Dust Control BMPs* during construction activities. **APM AQ-2** would include BMPs consistent with BAAQMD Guidelines during construction to reduce fugitive dust generation as follows:

**BMP-1** All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

**BMP-2** All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

**BMP-3** 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.

**BMP-4** All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).

**BMP-5** All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.

**BMP-6** Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

**BMP-7** All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.

**BMP-8** All trucks and equipment, including their tires, shall be washed or otherwise cleaned off prior to leaving the site.

**BMP-9** 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.

**BMP-10** 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.

**Operations**

Proposed Project operations are expected to begin in 2028. Once operational, the Proposed Project would generate very low air quality emissions from daily operations. Anticipated operations emissions are limited to sources such as worker trips, area sources such as landscaping, and energy usage from on-site HVDC cooling equipment and auxiliary equipment usage (e.g., control room heating, ventilation, and air conditioning [HVAC] units, communications equipment, and facility lighting). The total demand at each proposed terminal location site would be approximately 200 kilowatts (kW) continuous, which would consume 1,752,000 kilowatt hours (kWh) annually or a combined 3,504,000 kWh annually for the entire Proposed Project.

Since the Proposed Project would use only electrical energy, the energy source air quality emissions would be zero. Mobile vehicle visits to the Proposed Project site associated with periodic O&M would also generate air emissions. It is estimated that monthly O&M visits would not be greater than 10,000 vehicle miles per year per site or 20,000 miles annually. These annual emissions were included within the analysis. The expected daily pollutant generation from these sources is estimated in CalEEMod using the assumptions above and shown in Attachments 1A, 1B, and 1C in **Appendix 5.3-A**.

The average daily operational emissions during operations for each area are summarized in **Table 5.3-9**, *Combined Expected Average Daily Emissions During Operations (Pounds per Day)*. Based upon these calculations, the Proposed Project operations would produce less-than-significant air quality impacts during operations.

| Table 5.3-9: Combined Expected Average Daily Emissions During Operations (Pounds per Day) | | | | |
|---|---|---|---|---|
| | **ROG** | **$NO_x$** | **PM10 (Exhaust)** | **PM2.5 (Exhaust)** |
| Skyline Terminal | 0.29 | 0.01 | 0.02 | 0.01 |
| Grove Terminal | 0.29 | 0.01 | 0.02 | 0.01 |
| **Combined Operational Emissions** | **0.58** | **0.02** | **0.04** | **0.02** |
| BAAQMD Air Quality Thresholds | 54 | 54 | 82 | 54 |
| **Exceeds Thresholds?** | ***NO*** | ***NO*** | ***NO*** | ***NO*** |

As shown in **Table 5.3-9**, the Proposed Project would result in less-than-significant emissions of criteria pollutants during the operations phase. Therefore, the Proposed Project operations would not conflict with any air quality management plans, and operations-related impacts would be less than significant under this criterion.

**PG&E Facility Upgrades**

In order to integrate the proposed HVDC terminals and new Grove to Skyline 320 kV DC transmission line into the existing transmission system, PG&E would be required to perform upgrades at two existing substations: modifications to the Metcalf substation and expansion of the San Jose B substation (refer to **Section 3.3.5**, *Other Potentially Required Facilities*). The substation upgrades would occur within and adjacent to the existing substation facilities. The PG&E facility upgrades would also include a new water line to the existing Metcalf substation, which would extend approximately 800 feet north-northeast from the Metcalf substation and connect to an existing 16-inch water main near the corner of Metcalf Road and Malech Road, which is served by the Great Oaks Water Company. By the nature of criteria pollutant emissions and impact analysis, all Proposed Project activities are modeled cumulatively for comparison to daily emissions threshold (refer to **Table 5.3-8** above). Emissions from the existing San Jose B substation expansion construction were modeled with the adjacent Skyline terminal construction (refer to **Table 5.3-5**), and emissions from the existing Metcalf substation modifications were modeled with the Grove terminal construction (refer to **Table 5.3-6**). While LS Power would implement **APMs AQ-1** and **AQ-2**, PG&E would implement specific construction BMPs, which would ensure potential impacts to air quality would be less than significant. **BMP AQ-1**, *Vehicles Idling* would ensure reduction and minimization of emissions from idling vehicles. **BMP AQ-3**, *Fugitive Dust* would minimize fugitive dust emissions from PG&E construction activities. **BMP AQ-4**, *Portable Equipment Registration Program* and **BMP AQ-5**, *Tier 4 Construction Equipment* would combine to reduce emissions of key pollutants such as $NO_x$ and DPM consistent with the analysis contained within this Proponent's Environmental Assessment (PEA). Impacts at each PG&E scope area are less than significant, as are impacts from all Proposed Project construction. As shown above, impacts from all Proposed Project actions, including the PG&E scope items, are less than significant. Therefore, impacts associated with construction of the PG&E facilities upgrades and new water line would be less than significant if considered individually.

Impacts from operation of the PG&E facilities are not anticipated to change from existing conditions, as the operational sources of emissions, such as inspections, repairs, and maintenance, would not change following the substation upgrades and installation of new water line. Impacts would be less than significant.

**Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?**

**Less-Than-Significant Impact.** The Proposed Project was analyzed for construction and operational air quality emissions. Under this analysis, the Proposed Project would generate less-than-significant air quality direct impacts. With respect to an analysis of the Proposed Project's impacts under this criterion, it is important to note that air quality impacts relating to criteria pollutants are inherently cumulative. Emissions from various sources throughout SFAB are additive and cumulatively contribute to SFAB's attainment status with respect to NAAQS and CAAQS.

Because of this, most significance thresholds are developed such that an individual project's significance determination can also be determinative of its cumulative impact. Thus, if a project's individual emissions exceed applicable significance thresholds, such impact would be considered individually significant as well as resulting in a cumulatively considerable contribution to a significant cumulative impact. The BAAQMD thresholds of significance that are used as the basis for determining the Proposed Project's impacts relating to criteria pollutants were developed with respect to the fact that air quality impacts are inherently cumulative.

Therefore, while additional projects and other emissions sources would be active concurrently with the Proposed Project (see **Section 7.0**, *Cumulative and Other CEQA Considerations*), the severity of the Proposed Project's cumulative effect on air quality can be determined by its comparison to the BAAQMD significance thresholds. As described above and summarized in **Tables 5.3-5** through **5.3-9**, the Proposed Project would not exceed any of the BAAQMD thresholds, which would ensure compliance with both the City of San José and County of Santa Clara CEQA requirements.

The Proposed Project would be required to implement BMPs per BAAQMD requirements during construction. BMPs identified above, which would be implemented during construction, would typically reduce emissions below what was captured within the Proposed Project modeling and also below the applicable CEQA thresholds. Therefore, the Proposed Project's contribution to potential significant cumulative criteria pollutant impacts is considered to be less than significant.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast from the Metcalf substation. By the nature of criteria pollutant emissions and impact analysis, all project activities are modeled cumulatively for comparison of CEQA thresholds (refer to **Tables 5.3-5** through **5.3-8** above). As shown above, impacts from all Proposed Project actions, including the PG&E substation upgrades and new water line, are less than significant. Therefore, impacts associated with construction of the PG&E facilities upgrades would be less than significant if considered individually. PG&E construction activities would also comply with PG&E construction **BMPs AQ-1** through **AQ-5**, which would ensure impacts are less than significant.

Air quality impacts from operation of the PG&E facilities are not anticipated to change from existing conditions, as the operational sources of emissions, such as inspections, repairs, and maintenance, would not change following the substation upgrades. Operation of the new water

line is not anticipated to result in emission of criteria pollutants. Impacts would be less than significant.

**Would the project expose sensitive receptors to substantial pollutant concentrations?**

**Less-Than-Significant Impact.** The Proposed Project areas are located near sensitive residential receptors and are identified in **Figures 5.3-1** and **5.3-2**. The BAAQMD thresholds of significance were used as the basis for determining the Proposed Project's impacts relating to air quality pollutants and were developed to identify when pollutant concentrations would expose sensitive receptors to substantial pollutant concentrations. As described above and summarized in **Tables 5.3-5** through **5.3-8**, the Proposed Project would not exceed any of the BAAQMD thresholds of significance, which would ensure compliance with each of the City of San José and County of Santa Clara air quality General Plan policies. Therefore, the Proposed Project's air quality emissions would not expose sensitive receptors to substantial pollutant concentrations, and a less-than-significant air quality impact is expected.

The BAAQMD has a requirement to ensure health risks and health hazards are also less than significant. Based on calculations shown in **Appendix 5.3-A** (Attachments 3A and 3B), the highest DPM concentrations at the proposed Skyline terminal location would be at Receptor location 2 identified in **Figure 5.3-1**. Emission concentrations at this location are 0.013 $\mu g/m^3$. Based on this, the increased cancer risk is 3.72 people per million exposed[1]. Non-cancer risks are less than one (or 0.013 $\mu g/m^3$ / 5 $\mu g/m^3$ <1).

Similarly, the highest DPM concentrations at the proposed Grove terminal would be at Receptor location 3 identified in **Figure 5.3-2**. Emission concentrations at this location are 0.032 $\mu g/m^3$. Based on this, the increased cancer risk is 6.4 people per million exposed. Non-cancer risks are less than one (or 0.022 $\mu g/m^3$ / 5 $\mu g/m^3$ <1).
Cumulative cancer risk thresholds established by BAAQMD are less than 100 people per million exposed. Based on modeling, as distances beyond the Proposed Project site are increased, cancer risks drop substantially (**Appendix 5.3-A**). A cumulative health risk during construction could exist if a nearby large project was occurring simultaneously with the Proposed Project using diesel construction equipment. In addition, equipment would essentially need to be as much as 10 times more intense to generate emissions close to 100 per million exposed. As discussed further in **Section 7.0**, no nearby projects would be expected to meet these diesel equipment conditions. Given this, a less-than-significant cumulative health risk would be expected during construction at both the proposed Skyline and Grove terminals.

DPM from construction could expose off-site workers not affiliated with the Proposed Project. Calculations for health risks for off-site workers are similar though do not include age sensitivity factors between the third trimester up to age 16. In addition, the exposure concentration is for only a typical workday (i.e., eight hours), which would significantly reduce health risks compared to residential uses. Based on a review of the construction sites, the potential for off-site workers not affiliated with the Proposed Project working either adjacent to or closer than identified sensitive residential receptors is not expected. Given this, since the calculated health risks for sensitive residential receptors is less than significant, any potential risks to off-site workers would also be less than significant assuming workers may exist at the nearby residential homes.

[1] Cancer risk refers to the probability of contracting cancer associated with exposure to a substance and is expressed as the chance per million of a cancer case occurring. For example, a risk of one per million would mean that in a population of one million individuals exposed over a 70-year lifetime, one additional cancer case would be expected.

Areas located along the Proposed Project alignment could contain soils with NOA. LS Power would implement **APM AQ-3**, *Naturally Occurring Asbestos Compliance* to ensure that construction activities comply with existing regulations, and significant impacts to Proposed Project personnel and sensitive receptors near construction activities are avoided.

Finally, since the Proposed Project would not expose sensitive residential receptors to either significant cancer or significant chronic non-cancer risks, impacts under this criterion would be less than significant.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend to approximately 800 feet north-northeast of the Metcalf substation. The existing Metcalf substation and new water line are not located near potential sensitive receptors and are not expected to result in exposure of sensitive receptors to substantial pollutant concentrations. The existing San Jose B substation is located adjacent to the proposed Skyline terminal. As shown in **Figure 5.3-1**, sensitive receptors are located east of the combined San Jose B substation and Skyline terminal area. Therefore, impacts from construction emissions to cancer and non-cancer risks were modeled for the combined construction activities occurring at this location. Impacts from the combined construction are less than significant. PG&E would implement **BMP AQ-1**, which would reduce emissions from idling vehicles, and **BMP AQ-4**, which would ensure portable engines are compliant with CARB regulations and PG&E standards. In addition, PG&E would implement **BMP AQ-5**, which would ensure that PG&E's construction fleet would be consistent with the assumptions used for the PEA air quality and health risk assessment analysis. Therefore, impacts from the PG&E San Jose B substation expansion construction would be less than significant.

NOA could potentially be encountered at the existing Metcalf substation. Therefore, PG&E would implement **BMP AQ-2**, *Asbestos*. **BMP AQ-2** would ensure that PG&E construction activities in areas with potential NOA comply with existing PG&E standards as well as existing California regulations. While the existing Metcalf substation and new water line are not located near sensitive receptors, impacts would be less than significant for PG&E construction crews and Proposed Project personnel.

Impacts from operation of the PG&E facilities are not anticipated to change from existing conditions, as the operational sources of emissions, such as inspections, repairs, and maintenance, would not change following the substation upgrades. Impacts would be less than significant.

**Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?**

**Less-Than-Significant Impact.** The Proposed Project may create temporary construction odors from combustion engine equipment but would not be considered significant due to the highly dispersive nature of diesel exhaust and the short-term nature of construction.

The Proposed Project is not anticipated to result in emissions that could cause odors or other adverse effects during O&M. Impacts would be less than significant.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Temporary construction odors from combustion engine equipment would not be considered significant due to the highly dispersive nature of diesel exhaust and the short-term nature of construction. Impacts from other emissions, such as those leading to odors, would be less than significant for construction of the PG&E facility upgrades at the existing San Jose B and Metcalf substations.

Impacts from operation of the PG&E facilities are not anticipated to change from existing conditions, as the operational sources of other emissions, such as inspections, repairs, and maintenance, would not change following the substation upgrades. The new water line would not result in emission of pollutants, including odors. Impacts would be less than significant.

### 5.3.5 CPUC DRAFT ENVIRONMENTAL MEASURES

While the CPUC includes a Draft Environmental Measure for dust control within the PEA Guidelines document (CPUC, 2019), it is not included within this document. Rather, the Proposed Project has included **APM AQ-2**, which incorporates required BMPs identified by BAAQMD. All building plans and grading drawings would specifically have these measures included within the notes. Since fugitive dust emissions, as demonstrated by the construction modeling, do not exceed BAAQMD significance thresholds, mitigation was not specifically called out in **Section 5.3.4**, *Impact Analysis*.

### 5.3.6 APPLICANT PROPOSED MEASURES

The Proposed Project includes the following APMs relating to air quality, as outlined below.

**APM AQ-1: Construction Fleet Minimum Requirements and Tracking**

LS Power shall ensure that at least 75 percent of equipment horsepower hours related to off-road construction equipment include Tier 4 interim or Tier 4 final emissions controls. An initial listing that identifies each off-road unit's certified tier specification to be operated on the Proposed Project shall be submitted to the CPUC for review before the start of construction activities. Construction activities shall not begin until the equipment listing has been submitted to the CPUC.

As LS Power requires new or replacement construction equipment on the Proposed Project, LS Power shall document verification of the certified engine tier before their use on Proposed Project sites. Before the start of construction, LS Power shall develop a diesel-powered equipment-use hours tracking tool and procedure. The tracking tool shall be utilized by LS Power to keep track of the certified engine tier and daily equipment use hours of all off-road diesel-powered equipment. If all diesel-powered equipment is Tier 4 certified, the tracking tool is not required. The tracking tool shall be maintained by LS Power, and tracking updates shall be submitted to the CPUC on a monthly basis to track the Proposed Project's compliance. The updated tracking tool shall be submitted to the CPUC no later than the tenth day of the following month.

**APM AQ-2: Dust Control BMPs**

LS Power shall implement the following measures to control fugitive dust during construction activities:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt tracked out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.
- Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
- All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
- Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
- Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.

**APM AQ-3: Naturally-Occurring Asbestos Compliance**

LS Power shall ensure that construction activities comply with existing regulations pertaining to NOA, including the CARB Airborne Toxic Control Measures (ACTMs) for NOA, when construction activities have the potential to encounter NOA. ACTMs for NOA include dust control measures consistent with **APM AQ-2**.

### 5.3.7 PG&E BEST MANAGEMENT PRACTICES

The following air quality BMPs have been included for PG&E's scope of work:

**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, or an off-road diesel-fueled vehicle with a primary engine ≥25 horsepower, in excess of 5 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: Asbestos**

Because Metcalf Substation is located in an area with known encounters of NOA, PG&E will follow PG&E's Utility Procedure: ENV-1002P-02 for construction and grading activities at Metcalf Substation to ensure compliance with applicable State of California regulations including the Asbestos Airborne Toxic Control Measure (AATCM).

PG&E is responsible for obtaining permits from the air district prior to start of work.

**BMP AQ-3: 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.

**BMP AQ-4: Portable Equipment Registration Program**

PG&E requires that portable engines be registered into the Statewide Portable Equipment Registration Program (PERP) administered by the CARB, if:

- the engine is portable (mounted on a truck, trailer, skids, or wheels);
- the engine is 50 brake horsepower or greater, and;
- the engine does not provide motive force for a vehicle.

Auxiliary engines mounted on vehicles need to be registered if they are 50 brake horsepower or greater. For PG&E-owned units, PG&E Environmental Management Air Program is responsible for maintaining valid PERP registration with support from Transportation Services. For rental units, the rental vendor is responsible for the PERP registration and to provide PG&E with a copy of the current registration, permit, and placard before use.

Standard Requirements:

- If a current placard, registration sticker, and registration paperwork is not on the unit, the crew shall NOT use the piece of equipment and have it replaced with a unit that is compliant.
- For Rental Units: residence time onsite must be logged upon arrival onsite and upon removal. This record shall be retained and made available for review by the project Environmental Field Specialist (EFS).

Additional Requirements:

- If the PERP unit is being used to provide primary or supplemental power to a building during an electrical upgrade there is a 90-day limit on the use of PERP.

- If the PERP unit is being used to provide primary or supplemental power to a building for greater than 12 months and an electrical upgrade is not happening a local air district permit is required.
- If the PERP generator is being used for Power Safety Power Shutoff (PSPS) support in the following air districts a local air district permit will be required:
    - Bay Area Air Quality Management District (AQMD)
    - Placer County AQMD
    - Yolo-Solano AQMD
    - Northern Sonoma AQMD
    - San Joaquin Valley APCD
    - Feather River AQMD
- If the PERP generator is being used for EPSS support in the following air districts a local air district permit may be required:
    - Monterey Bay ARD
    - Feather River AQMD
- If the PERP Unit is being used to replace a failed stationary source generator:
    - a local district notification is required within 72 hours;
    - a Tier 4 Final Engine should be used;
    - and a local district permit may be required in 180 days.
- If the PERP unit is being used for Capacity Shortfall in Feather River AQMD or Yolo-Solano AQMD, a local air district permit is required.

Greenhouse Gas (GHG) Facility Requirements:

If diesel portable engines greater than 50 brake horsepower (bhp) are operated on-site at a GHG facility subject to the Mandatory Reporting Rule for GHGs (MRR) at any time, the AB617 PERP Log must be completed. Refer to the PERP Engine Tracking Requirements at GHG Reporting Facilities 5MM for details.

**BMP AQ-5: Tier 4 Construction Equipment.**

At least 75 percent of construction equipment with a rating between 100 and 750 hp would be required to use engines compliant with EPA Tier 4 non-road engine standards. In the event enough Tier 4 equipment are not available to meet the 75-percent threshold, documentation of the unavailability would be provided and engines utilizing a lower standard would be used.

## 5.4 BIOLOGICAL RESOURCES

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| 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? | | | X | |
| 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? | | | X | |
| c. | Have a substantial adverse effect on state or federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | | | | X |
| 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? | | | X | |
| e. | Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | | | | X |
| 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? | | | X | |

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| g. | Create a substantial collision or electrocution risk for birds or bats? | | | X | |

This section describes the biological resources within the vicinity of the Proposed Project as well as potential impacts that could result from construction and operation and maintenance (O&M) of the Proposed Project.

## 5.4.1 ENVIRONMENTAL SETTING

The Proposed Project is located within the Santa Clara Valley in central Santa Clara County, California. The Proposed Project starts in downtown San José and continues south/southeast through urban development associated with the City of San José. The Proposed Project is located primarily within First Street and Monterey Road until it reaches the existing Pacific Gas and Electric Company (PG&E) Metcalf substation just outside of the City of San José. The Proposed Project is primarily located within heavily populated and developed areas that have very few native habitats. The only native habitats that exist in the Proposed Project area are located along waterways and primarily in the vicinity of the existing Metcalf substation, where a riparian corridor associated with Coyote Creek parallels the right-of-way (ROW) corridor and Monterey Road to the north/northeast, and grasslands associated with the Tulare Hill Ecological Preserve parallel the ROW corridor and Monterey Road to the south/southwest. Photographs of the Survey Area are included in the Biological Resources Technical Report (BRTR) provided as **Appendix 5.4-A**.

### 5.4.1.1 Biological Resources Technical Report

The analysis presented in this section is based in part on the Proposed Project-specific BRTR (**Appendix 5.4-A**), which documents existing conditions, the potential for occurrence of special-status species, and the findings of biological surveys. Most of the information on the regulatory setting, methods, environmental setting, and impact analysis has been summarized from the BRTR. Prior to conducting field surveys, Heritage Environmental Consultants, LLC ("Heritage") conducted a literature review and records search for information on occurrences of special-status species in the vicinity of the Proposed Project.

### 5.4.1.2 Survey Area (Local Setting)

The Proposed Project was given a 1,000-foot buffer which is referred to as the Biological Resources Survey Area ("Survey Area") (approximately 4,089 acres; **Figure 5.4-1**, *Biological Survey Area Map*). The biological survey area includes the area in which potential for occurrence of special-status species was analyzed. The majority of the Survey Area is located within urban, developed, or disturbed areas within the City of San José that are heavily populated. All of the common species that were observed in the Survey Area were typical for urban, riparian, woodland, and grassland habitats. A full list of observed plant and animal species is included in **Appendix 5.4-A**.

#### 5.4.1.3 Vegetation Communities and Land Cover

The approximately 4,089-acre Survey Area supports primarily developed and disturbed, non-vegetated areas or areas that are non-native and associated with development (i.e., parks and cemeteries). There are a few areas of native vegetated habitat on the southeast end of the Survey Area near the existing PG&E Metcalf substation. Vegetation community types are based on field observations and the California Department of Forestry and Fire Protection ("CAL FIRE") Fire and Resource Assessment Program (FRAP), in cooperation with California Department of Fish and Wildlife (CDFW) VegCamp program and extensive use of U.S. Department of Agriculture (USDA) Forest Service Region 5 Remote Sensing Laboratory (RSL) data and descriptions in the California Native Plant Society (CNPS) Manual of California Vegetation Online (MCV) (Heritage, 2024). Natural communities were evaluated using NatureServe's Heritage Methodology, the same system used to assign global and state rarity ranks for plant and animal species in the California Natural Diversity Database (CNDDB). Sensitive natural communities are natural communities with ranks of S1, S2, or S3. The natural communities observed in the Survey Area are ranked S3 and S4. All of the hardwood woodlands associated with riparian corridors and lakes, ponds, and streams would be considered sensitive natural communities.

The Proposed Project and Survey Area are dominated by disturbed/urban areas that are associated with the urban and suburban areas of greater San José, but there are other vegetation communities, primarily on the southeastern end of the Survey Area, including annual grassland, hardwood woodland, hay crops, and orchard. The components of the Proposed Project would be located primarily within disturbed/urban or orchard areas, but small portions would be located in hardwood woodland and annual grassland land cover types (**Figure 5.4-2**, *Vegetation Communities Map*).

The approximate acreage of each of the vegetation communities and land cover types that were mapped within the Survey Area is summarized in **Table 5.4-1**, *Vegetation Communities and Land Cover Types within the Survey Area*. Brief descriptions of each land cover type are provided following the table. Vegetation community and land cover mapping is shown on **Figure 5.4-2**.

**Table 5.4-1: Vegetation Communities and Land Cover Types within the Survey Area**

| Vegetation Community of Land Cover Type Name | Approximate Acreage in Survey Area | Approximate Percent of Total Acreage |
|---|---|---|
| Disturbed/Urban | 3,564 | 88% |
| Orchard | 14 | <1% |
| Hay Crops | 72 | 2% |
| Hardwood Woodland | 161 | 4% |
| Annual Grassland | 174 | 4% |
| Wetland | 1 | <1% |

| Table 5.4-1: Vegetation Communities and Land Cover Types within the Survey Area | | |
|---|---|---|
| **Vegetation Community of Land Cover Type Name** | **Approximate Acreage in Survey Area** | **Approximate Percent of Total Acreage** |
| Open Water | 74 | 2% |
| **Total** | **4,060** | |
| Note: Total percentage may not add up to 100 percent due to rounding. | | |

### Disturbed/Urban

This land cover type dominates the Survey Area (88 percent). This cover type includes all areas associated with significant human disturbance, including all urban areas (buildings, roads, substations, railways, etc.), suburban areas (houses, lawns, parks, etc.), and disturbed areas (disturbed fields, vacant lots, etc.). Some native and nonnative decorative trees, shrubs, and grasses may be present in association with the urban/suburban development, primarily as decorative vegetation. Nonnative and invasive weeds may also be present in association with disturbed areas (such as stinkwort [*Dittrichia graveolens*], horseweed [*Erigeron canadensis*], wild oat [*Avena fatua*], Kentucky bluegrass [*Poa pratensis*], shortpod mustard [*Hirschfeldia incana*], and tumbleweed [*Kali tragus ssp. tragus*]).

### Orchard

Orchard habitats are comprised entirely of orchard trees (mostly citrus trees). These areas have a lower level of disturbance than the row crop fields as they are not harvested as often. There is only one orchard area within the Survey Area—where the proposed Grove terminal site exists at the southeastern end of the Survey Area. This cover type represents less than one percent of the total area within the Survey Area.

### Hay Crops

Hay crop fields in the area are comprised entirely of row or cover crops (mostly hay crops). These areas are frequently harvested and generally have a higher level of disturbance than orchards or vineyards. This cover type only exists in the extreme southeastern portion of the Survey Area on the west side of Monterey Road across from the proposed Grove terminal site and represents two percent of the total area within the Survey Area.

### Hardwood Woodland

This habitat includes primarily hardwood trees and associated shrubs and is primarily associated with streams and riparian areas (four percent). Fremont cottonwood (*Populus fremontii*) is the dominant tree species, with a mixture of narrowleaf willow (*Salix exigua*), red willow (*Salix laevigata*), Coast live oak (*Quercus agrifolia*), northern California black walnut (*Juglans hindsii*), western sycamore (*Platanus racemosa*), and California buckeye (*Aesculus californica*) as associated hardwood trees. Associated shrub species include Pacific poison oak (*Toxicodendron diversilobum*), coyote brush (*Bacharris pilularis*), elderberry (*Sambucus nigra*), Himalayan blackberry (*Rubus armeniacus*), and mulefat (*Bacharris salicifolia*). The ground cover consists of forbs (such as dove weed [*Croton setigerus*], filaree [*Erodium sp*.], and perennial pepperweed

[*Lepidium latifolium*]); and annual native and nonnative grasses (such as wild oat, rat's-tail fescue [*Vulpia myuros*], lop grass [*Bromus hordeaceus*], wall barley [*Hordeum murinum*], tufted hairgrass [*Deschampsia cespitosa*], and cheatgrass [*Bromus tectorum*]). Some wetland plants are also associated with this land cover type and occur along the margins of the lakes, ponds, and streams (such as softstem bulrush [*Schoenoplectus tabernaemontani*], tall flatsedge [*Cyperus eragrostis*], giant reed [*Arundo donax*], and broadleaf cattail [*Typha latifolia*]).

**Annual Grassland**

Annual grassland exists in small areas primarily on the eastern side of the Survey Area associated with the hills to the east and west of the Proposed Project (four percent). These areas are dominated by non-native and native annual grasses such as wild oats, rat's-tail fescue, cheatgrass, soft brome (*Bromus hordeacus*), and purple needlegrass (*Stipa pulchra*)—the dominant grass species—and many clover species (*Trifolium sp*.), filaree species, mustards, common fiddleneck (*Amsinckia menziesii*), and starthistle species (*Centaurea sp*.)—the dominant forb species in this habitat.

**Wetland**

One wetland area exists within the Survey Area on the south end northeast of Malech Road and east of U.S. Route 101. This area included softstem bulrush, tall flatsedge, giant reed, and broadleaf cattail. This cover type represents less than one percent of the total area within the Survey Area.

**Open Water**

Open water habitats are associated with lakes and ponds within the Survey Area (two percent of the Survey Area). These areas include large expanses of open water and represent two percent of the total area within the Survey Area.

**Sensitive Natural Vegetation Communities**

Sensitive natural communities are natural communities with ranks of S1, S2, or S3. The natural communities observed in the Survey Area are ranked S3 and S4. All of the hardwood woodlands associated with riparian corridors and lakes, ponds, and streams would be considered sensitive natural communities.

### 5.4.1.4 Aquatic Features

An aquatic resources delineation survey was conducted on June 26, 27, and 28, and September 21 and 22, 2023 for the Proposed Project and Survey Area. National Wetlands Inventory (NWI) maps were reviewed for the area (Heritage, 2024), and there are several NWI drainages that are mapped within the 1,000-foot buffer Survey Area (**Figure 5.4-3**, *NWI Wetlands Map*). These features were verified in the field within the Survey Area. Guadalupe River, Los Gatos Creek, Fisher Creek, and Coyote Creek and its associated ponds and lakes were mapped using field observations and aerial signatures as well as NWI data (Heritage, 2024; **Figure 5.4-4**, *Aquatic Resources Map*). These creeks and rivers are all perennial in their flow regime.

The streams, ponds, and lakes described above meet the criteria to be considered jurisdictional under both current State and Federal Clean Water Act (CWA) laws and under CDFW's Lake and

Streambed Alteration Program. None of the aquatic resources and jurisdictional areas are anticipated to be impacted by the Proposed Project.

#### 5.4.1.5 Habitat Assessment

Special-status species are plants and wildlife that require special consideration or protection and have been listed as rare, threatened, or endangered by federal, state, or other agencies because of their rarity, vulnerability to habitat loss, population decline, or other factors. Species listed as threatened or endangered are protected under federal or state law. Other species have been designated as special status by state resource agencies or by policy of local agencies to meet conservation objectives.

Special-status plant and wildlife species identified during the literature and database search (five-mile buffer) were analyzed with the following definitions of their potential to occur within the Survey Area:

- **Not Expected; None:** The Survey Area does not support suitable habitat for a particular species, and the known range for a particular species is outside of the Survey Area.
- **Low Potential:** The Survey Area provides limited suitable habitat for a particular species. The known range for a particular species may be outside of the Survey Area.
- **Moderate Potential:** The Survey Area provides suitable habitat for a particular species. The known range for a particular species may include the Survey Area.
- **High Potential:** The Survey Area provides ideal habitat conditions for a particular species or known populations occur in the immediate vicinity.
- **Present:** Species was observed within the Survey Area during biological surveys or other site visits.

**Biological Surveys**

A habitat assessment and jurisdictional waters survey was conducted over the course of six survey days (June 26, 27, and 28, September 21 and 22, 2023, and March 28, 2024). The intention of the surveys was to map all potentially jurisdictional waters within the Survey Area, map vegetation communities, and analyze the potential for occurrence of special-status species. Potential jurisdictional water features were investigated and mapped throughout the Survey Area and were mapped in detail along Coyote Creek in the vicinity of the existing PG&E Metcalf substation. All areas within native habitats were surveyed where access was granted, and the urban and disturbed areas were surveyed from public roads and paths where possible due to safety concerns and access limitations.

**Special-Status Plants**

All special-status plant species found in the Information for Planning and Consulting (IPaC), CNPS, and CNDDB occurrence records within the Survey Area were evaluated for their potential to occur based on the presence of suitable habitat, elevation, and soils (Heritage, 2024). The IPaC report is provided in the BRTR **(Appendix 5.4-A)**; CNDDB records are shown on **Figure 5.4-5**, *CNDDB and Critical Habitat Map* and presented in Table 3 of **Appendix 5.4-A**.

Additionally, all plants that have CNPS records within the United States Geological Survey (USGS) 7.5-minute quadrangles that the Survey Area lies within are included in **Appendix 5.4-A**. However, these plants are not expected to occur within the Survey Area because of its disturbed nature and lack of suitable habitats.

There is no United States Fish and Wildlife Service (USFWS) critical habitat for special-status species plants mapped within five miles of the Proposed Project (Heritage, 2024). Based on the literature review, 40 special-status plant species were evaluated for their potential to occur within the Survey Area; of the 40 special-status plant species, three of these plant species have moderate to high potential to occur in the Survey Area (see **Table 5.4-2**, *Special-Status Species, Habitat, and Potential for Occurrence within the Survey Area*). None of these plants are expected to occur within impact areas, as most of the impact areas are associated with urban and disturbed areas where these plants are not expected to occur.

**Special-Status Wildlife**

All special-status wildlife species, listed in the IPaC and CNDDB occurrence records, and Western Bat Working Group (WBWG) priority bats that were determined to have an overlapping range with the Proposed Project were evaluated for their potential to occur within the Survey Area based on the presence of suitable habitat; see **Table 5.4-2**. The IPaC report is provided in **Appendix 5.4-A,** and CNDDB records are shown on **Figure 5.4-5**. There is USFWS and National Marine Fisheries Service (NMFS)-designated critical habitat for two special-status wildlife species (Bay checkerspot butterfly [*Euphydryas editha bayensis]* and Central California Coast steelhead distinct population segment [DPS] [*Oncorhynchus mykissirideus]*) mapped within the Survey Area (Heritage, 2024). Based on the literature review, 13 mammals, 28 birds, three invertebrates, three amphibians, one fish, and one reptile were evaluated for their potential to occur within the Survey Area (**Appendix 5.4-A**).

Sixteen bird species, one reptile, three amphibians, three invertebrates, one fish, and four mammal species were identified as having moderate or high potential to occur within the Survey Area. Raptors (protected by the Migratory Bird Treatment Act [MBTA] and the California Fish and Game Code [CFGC]) were also identified as having a high potential to occur within the Survey Area. The rest of the species that were analyzed for occurrence in the Survey Area are not expected to occur or are considered to have a low potential to occur. The species that have a moderate or high potential to occur within the Survey Area and have the potential to occur within impact areas are described in more detail following **Table 5.4-2**. These species are those for which additional surveys would likely be required.

| Table 5.4-2: Special-Status Species, Habitat, and Potential for Occurrence within the Survey Area | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status** | **Habitat** | **Potential for Occurrence within the Survey Area** |
| **Plants** | | | | |
| Tiburon paintbrush | *Castilleja affinis var. neglecta* | 1B.2, FE, ST | Occurs in valley and foothill grassland usually on serpentine soils. Occurs at elevations from 195-1,310 feet. This hemiparasitic perennial herb blooms from April through June. | Moderate; suitable grassland habitat exists within the Survey Area primarily within the Tulare Hill Ecological Preserve. No known occurrences within the Survey Area based on CNDDB records. |
| Santa Clara Valley dudleya | *Dudleya abramsii ssp. setchellii* | 1B.1, FE | Occurs in cismontane woodland and valley and foothill grassland usually on rocky or serpentine soils. Occurs at elevations from 195-1,755 feet. This perennial herb blooms from April through October. | Moderate; suitable grassland habitat exists within the Survey Area primarily within the Tulare Hill Ecological Preserve. There are multiple occurrences within the Survey Area in Tulare Hill Ecological Preserve, in the grasslands across U.S. Route 101 from the Preserve, and near Staging Area 4 and Valley Christian School near the center of the Survey Area based on CNDDB records. Most of the records are from 2018 or 2020. |
| Metcalf Canyon jewelflower | *Streptanthus albidus ssp. albidus* | 1B.1, FE | Occurs in valley and foothill grasslands on serpentine soils. Occurs at elevations from 150-2,625 feet. This annual herb blooms from April through July. | Moderate; suitable grassland habitat exists within the Survey Area primarily within the Tulare Hill Ecological Preserve. There are multiple occurrences within the Survey Area in Tulare Hill Ecological Preserve, in the grasslands across U.S. Route 101 from the Preserve, and near Valley Christian School near the center of the Survey Area based on CNDDB records. Most of the records are from 2018 or 2020. |

| Table 5.4-2: Special-Status Species, Habitat, and Potential for Occurrence within the Survey Area | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status** | **Habitat** | **Potential for Occurrence within the Survey Area** |
| **Fish** | | | | |
| Steelhead (Central California Coast DPS) | *Oncorhynchus mykiss irideus* | FT, ST | This anadromous fish is found in Pacific Ocean drainages from Southern California to Alaska. The Central Coast population segment includes all populations below natural and manmade barriers from the Russian River (Sonoma County) south to Aptos Creek (Santa Cruz County). Adults from this population enter the rivers and streams in this area between December and February when flows are highest and move upstream for spawning purposes. Steelhead spawn within coarse gravel in pools or riffles within small streams and tributaries where cool, well oxygenated water is available year-round. Steelhead are known to use the Guadalupe River and portions of Coyote Creek for spawning and migration purposes. | High; steelhead may use the Guadalupe River and Coyote Creek within the Survey Area for migration and spawning purposes. Designated critical habitat occurs within Coyote Creek within the Survey Area. There are known CNDDB occurrences along the Guadalupe River within the Survey Area near the proposed Skyline terminal. |

**Table 5.4-2: Special-Status Species, Habitat, and Potential for Occurrence within the Survey Area**

| Common Name | Scientific Name | Status | Habitat | Potential for Occurrence within the Survey Area |
|---|---|---|---|---|
| **Invertebrates** | | | | |
| Bay checkerspot butterfly | *Euphydryas editha bayensis* | FT | Occurs on shallow, serpentine-derived soils or serpentine-like soils in grassland habitats. These soils support the plants on which the caterpillars (larvae) feed. The primary larval host plant is dwarf plantain (*Plantago erecta*). In many years, the plantain dries up and the larvae transfer to a second host plant, exerted Indian paintbrush or purple owl's clover (*Castilleja exsert ssp. exerta*), which remains edible later in the season (Black and Vaughan, 2005). Since 2009, translocations have occurred at Tulare Hill Ecological Preserve, and the area has been designated as critical habitat. | High; suitable habitats occur within the Tulare Hill Ecological Preserve and the foothills on the east side of the valley within and southwest/northeast of the Survey Area near the existing Metcalf substation. Designated critical habitat occurs in this area as well, and butterflies could migrate across the Survey Area between the two sides of the valley. CNDDB records show occurrences within Tulare Hill Ecological Preserve and in the foothills to the east of U.S. Route 101. |

| Table 5.4-2: Special-Status Species, Habitat, and Potential for Occurrence within the Survey Area | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status** | **Habitat** | **Potential for Occurrence within the Survey Area** |
| Monarch butterfly | *Danaus plexippus* | FC | Occurs in North, Central, and South America; Australia; New Zealand; islands of the Pacific and Caribbean; and elsewhere. Monarchs lay their eggs on their obligate milkweed host plant (primarily *Asclepias* spp.). North America has several dozen native milkweed species with which monarchs co-evolved and upon which they rely to complete their life cycle. Monarchs from Nevada generally migrate to California to overwinter. In the southwestern states, migrating monarchs tend to occur more frequently near water sources. During breeding and migration, monarchs require a diversity of blooming nectar resources and milkweed. | Moderate; flowering plants occur within the Survey Area, and milkweed species could occur. There are no known occurrences within the Survey Area based on CNDDB records. |
| Crotch's bumblebee | *Bombus crotchii* | SC | Distributed from coastal California east towards the Sierra-Cascade crest. Inhabits open grassland and scrub habitats within many ecoregions including adjacent foothills. Generally occupies warmer and more arid regions than other bumblebees and does not usually occupy mountainous regions. Most current observations (2002-2017) occur in southern California. | Moderate; may occur within open grassland habitats in the vicinity of the Survey Area such as in the Tulare Hill Ecological Preserve. There are no known occurrences within the Survey Area based on CNDDB records, but there have been records from 2020 within 2.5 miles of the Survey Area. |

| Table 5.4-2: Special-Status Species, Habitat, and Potential for Occurrence within the Survey Area | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status** | **Habitat** | **Potential for Occurrence within the Survey Area** |
| **Mammals** | | | | |
| Townsend's big-eared bat | *Corynorhinus townsendii* | CSSC, WBWG-H | Occurs in a wide variety of habitats, including coniferous forests, mixed forests, deserts, native prairies, riparian communities, active agricultural areas, and coastal habitat types. Forages near edge habitats along streams and adjacent to and within a variety of wooded habitats. Requires caves or mines for roosting habitat. | Low; no cave or mine roosting habitat is present. No known occurrences within the Survey Area based on CNDDB records. |
| Spotted bat | *Euderma maculatum* | CSSC, WBWG-H | Occurs in a wide variety of habitats from arid, low desert habitats to high elevation coniferous forests. Prominent rock features are a necessary feature for roosting. Forages in close proximity to roost sites. | Low; due to a lack of suitable roosting habitat. Since foraging usually occurs in the immediate vicinity of the roost site, there is a very low potential for foraging individuals to occur. No known occurrences within the Survey Area based on CNDDB records. |
| Silver-haired bat | *Lasionycteris noctivagans* | WBWG-M | Occurs in coastal and montane coniferous forests, valley foothill woodland, pinyon-juniper woodlands, and valley foothill and montane riparian habitats. Prefers old growth forests but can be found in a variety of wooded habitats. Roosts individually or in small groups in hollow trees, snags, buildings, rock crevices, caves, and under bark. | Moderate; potentially suitable foraging and roosting habitat exists within riparian woodland habitats within the Survey Area, though this bat prefers old growth forests. No known occurrences within the Survey Area based on CNDDB records. |

| Table 5.4-2: Special-Status Species, Habitat, and Potential for Occurrence within the Survey Area | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status** | **Habitat** | **Potential for Occurrence within the Survey Area** |
| Western red bat | *Lasiurus blossevillii* | CSSC, WBWG-H | Prefers riparian woodlands but is also found in a variety of other forests. Primarily roosts in trees along forest edges adjacent to streams or open fields but will sometimes use orchards and buildings for day roosts. Forages over open areas near the roosting sites. | Low; there is a small amount of potentially suitable foraging habitat within riparian woodland habitats, and there is a low chance for roosting bats in trees within the Survey Area, but the area is generally too heavily disturbed and populated. No known occurrences within the Survey Area based on CNDDB records. |
| Hoary bat | *Lasiurus cinereus* | WBWG-M | The most widespread bat in the United States. Prefers coniferous and broadleaf trees at the edges of clearings but will also use dense forested areas. Usually roosts in dense foliage of trees but will occasionally use buildings and ledges. Forages in open areas near roosting areas. | Moderate; there is potentially suitable foraging habitat within riparian woodland areas and in parks, and there is a low chance for roosting bats in trees and on buildings in the Survey Area. No known occurrences within the Survey Area based on CNDDB records. |
| Long-eared myotis | *Myotis evotis* | WBWG-M | Occurs in semiarid shrublands, sage, chaparral, and agricultural areas, but prefers coniferous woodlands and forests. Roosts under tree bark, in hollow trees, caves, mines, cliff crevices, sinkholes, rocky outcrops, buildings, and under bridges. Forages amongst and along the edges of forested areas. | Low; lack of coniferous forests and shrublands within the Survey Area. No known occurrences within the Survey Area based on CNDDB records. |

| Table 5.4-2: Special-Status Species, Habitat, and Potential for Occurrence within the Survey Area | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status** | **Habitat** | **Potential for Occurrence within the Survey Area** |
| Little brown myotis | *Myotis lucifugus* | WBWG-M | Widespread and common in mesic, forested areas of temperate North America. Will exploit a wide variety of natural and man-made roost sites in woodland/forested areas where water sources are nearby. Maternity roost sites include tree cavities, caves, and buildings. Most common in mid- to high-elevation forests. Feeds over water and other open areas such as agricultural fields and grasslands. | Low; lack of large woodland/forested habitats in the Survey Area. No known occurrences within the Survey Area based on CNDDB records. |
| Fringed myotis | *Myotis thysanodes* | WBWG-H | Mostly occupies dry habitats where open areas (e.g., grasslands and deserts) are interspersed with mature forests (usually ponderosa pine, pinyon-juniper, or oak), creating complex mosaics with ample edges and abundant snags. In dry environments, exists in close proximity to water sources. Tends to forage along forest edges. Uses caves, mines, large trees and snags, and buildings as roost areas. | Low; lack of suitable mature forests and dry habitats in the vicinity of the Survey Area. No known occurrences within the Survey Area based on CNDDB records. |
| Long-legged myotis | *Myotis volans* | WBWG-H | Primarily occupies coniferous woodlands and forests above 4,000 feet in elevation but will also use chaparral, coastal scrub, riparian, and desert habitats. Roosts in rock crevices, buildings, under tree bark, in snags, mines, and caves. Forages in openings, near trees and cliffs, and over water sources. | Low; lack of coniferous forests. No known occurrences within the Survey Area based on CNDDB records. |

| Table 5.4-2: Special-Status Species, Habitat, and Potential for Occurrence within the Survey Area | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status** | **Habitat** | **Potential for Occurrence within the Survey Area** |
| Western mastiff bat | *Eumops perotis* | CSSC, WBWG-H | Primarily occupies broad, open areas in dry desert washes, floodplains, chaparral, oak woodland, open ponderosa pine forest, grassland, and agricultural areas. Primarily a cliff-roosting species but will sometimes use tall buildings and crevices in large boulders. | Low; lack of cliff and other tall roosting habitat. No known occurrences within the Survey Area based on CNDDB records. |
| San Joaquin kit fox | *Vulpes macrotis mutica* | FE, ST | Inhabits grasslands and scrublands that can have a moderate level of human disturbance, such as active oil fields, wind turbines, and agricultural matrices of row crops, irrigated pasture, orchards, vineyards, and grazed annual grassland. Inhabits grazed, non-irrigated grasslands in agricultural areas but also lives next to and forages in tilled or fallow fields, irrigated row crops, orchards, and vineyards. Prefers loose-textured soils for digging but can be found on virtually every soil type. | Moderate; suitable habitats occur within the Tulare Hill Ecological Preserve and the foothills on the east side of the valley within and southwest/northeast of the Survey Area near the existing Metcalf substation. No CNDDB occurrences have been recorded within the Survey Area. |
| American badger | *Taxidea taxus* | CSSC | Prefers open areas in relatively dry grasslands, open forests, and creosote bush scrub, as well as agricultural land. Prefers areas with sandy/loamy, friable soils where burrowing is easier. | Moderate; some open woodland and grassland habitats exist within the Survey Area. No known occurrences within the Survey Area based on CNDDB records, but there is one known occurrence immediately north of the Survey Area near the U.S. Route 101 and State Route 85 interchange from 2014. |

| Table 5.4-2: Special-Status Species, Habitat, and Potential for Occurrence within the Survey Area | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status** | **Habitat** | **Potential for Occurrence within the Survey Area** |
| Mountain lion | *Puma concolor* | SPM | Inhabit diverse habitat types in California where they can be found in almost all habitat types except cities, xeric regions of the Mojave and Colorado deserts, and croplands in the Central Valley that do not support mule deer populations (Heritage, 2024). They can generally be found wherever native or introduced ungulates, such as mule deer, elk, bighorn sheep, or feral hogs, are present. They are most abundant in riparian or other brushy stages of most habitat types. | Low; southeastern end of the Survey Area only. Mountain lions are known to occupy the Santa Cruz Mountains and Diablo Range to the east and west of the Coyote Valley (Heritage, 2024) and have a low potential to move through the valley and the Survey Area between these mountainous areas. This species is not tracked by the CNDDB. |
| **Birds** | | | | |
| Swainson's hawk | *Buteo swainsonii* | ST, BCC | Overwinters in South America. Habitat in the breeding range consists of open stands of grass dominated vegetation, sparse shrublands, open woodlands, and agricultural lands—primarily those dominated by row, grain, and hay crops. Nests in scattered trees within these landscapes, such as in riparian trees near grasslands or agricultural areas. | Moderate; southeastern end of the Survey Area only. Swainson's hawks usually occupy less forested and less densely populated areas, but the southeastern end of the Survey Area contains some open areas and agricultural lands that could be used for foraging and suitable nesting trees exist. No known occurrences within the Survey Area based on CNDDB records, but two occurrences were mapped by CNDDB from 2021 in open agricultural fields approximately 1,500 feet east of the southeast end of the Survey Area. |

| Table 5.4-2: Special-Status Species, Habitat, and Potential for Occurrence within the Survey Area | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status** | **Habitat** | **Potential for Occurrence within the Survey Area** |
| Burrowing owl | *Athene cunicularia* | BCC, CSSC | Open habitats with low or sparse vegetation, such as prairie pastures, desert or desert scrub, agricultural, and disturbed areas. Especially alongside canals and berms associated with agriculture. Forages over low vegetation and typically will not forage within trees or tall shrubs. | Moderate; only within the Tulare Hill Ecological Preserve; the rest of the Survey Area lacks open areas with sparse vegetation. There are CNDDB occurrences within the Tulare Hill Ecological Preserve within the Survey Area. |
| Tricolored blackbird | *Agelaius tricolor* | BCC, ST | Typically nests in large and dense marshes but in recent decades use of certain agricultural crops and upland shrubs and thistles has increased. Annual grasslands with invasive shrubs and weeds are also used. Forages over water, certain agricultural fields, alkali scrub, coast live oak, and other land cover types that support insect prey. Orchards, vineyards, and cultivated row crops provide little to no breeding season foraging opportunities. | High; suitable marshes occur along Coyote Creek primarily on the far southeast end of the Survey Area. There are CNDDB occurrences along Coyote Creek at Coyote Ranch Park. |
| California clapper rail (Ridgway's rail) | *Rallus longirostris obsoletus* | FE | Occurs almost exclusively in tidal and brackish marshes with unrestricted daily tidal flows, adequate invertebrate prey food supply, well-developed tidal channel networks, and suitable nesting and escape cover to provide habitat during extreme high tides. Their current distribution is restricted to the San Francisco Bay Estuary. | Low; no suitable tidal and brackish marshes exist within the Survey Area. No known occurrences within the Survey Area based on CNDDB records. |

**Table 5.4-2: Special-Status Species, Habitat, and Potential for Occurrence within the Survey Area**

| Common Name | Scientific Name | Status | Habitat | Potential for Occurrence within the Survey Area |
|---|---|---|---|---|
| California least tern | *Sterna antillarum browni* | FE, SE | This subspecies of the least tern (*Sterna antillarum*) traditionally nested on sandy beaches close to estuaries and coastal embayments relatively free from human disturbance. Foraging habitat includes nearshore waters, estuarine channels, narrow bays, and other shallow water marine habitat. | Low; no suitable coastal habitats exist within the Survey Area; could only occur during migration. No known occurrences within the Survey Area based on CNDDB records. |
| Marbled murrelet | *Brachyramphus marmoratus* | FT, ST | Breeds in coastal forests and sea-facing talus slopes or cliffs on islands or the mainland. Most nest in trees but sometimes on the ground. Primarily uses marine habitats during the non-breeding period. | Low; no suitable coastal habitats exist within the Survey Area. No known occurrences within the Survey Area based on CNDDB records. |
| California condor | *Gymnogyps californianus* | FE, SE | Nesting habitat is typically in cliffs in mountainous areas but occasionally will use cave-like cavities in large trees, such as coast redwood (*Sequoia sempervirens*) and giant sequoia (*Sequoiadendron giganteum*). Forages in relatively open grassland and woodland regions and along coastlines. May range hundreds of miles to forage. | Low; foraging purposes only. This is unlikely due to the disturbance levels in the area and the lack of ideal foraging habitat, but potential foraging habitat exists within five miles of the Proposed Project in the foothills to the east. No known occurrences within five miles of the Proposed Project based on CNDDB records. |

| Table 5.4-2: Special-Status Species, Habitat, and Potential for Occurrence within the Survey Area | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status** | **Habitat** | **Potential for Occurrence within the Survey Area** |
| Golden eagle | *Aquila chrysaetos* | BGEPA, BCC, CFP | Nest in high densities in open and semi-open habitat but also may nest at lower densities in coniferous habitat when open space is available (e.g., fire breaks, clear-cuts, burned areas, pastureland, etc.). Can be found from the tundra, through grasslands, woodland-brushlands, and forested habitat, south to arid deserts. Usually associated with areas of high topographic relief, such as rolling hills and mountains. Uses cliffs, rock outcroppings, and tall, prominent trees for nesting. Will occasionally nest on tall transmission towers. | Low; very few suitable open habitats exist for foraging, and there is no potential for nesting in the area due to a lack of cliffs and tall, prominent trees. No known occurrences within the Survey Area based on CNDDB records. |
| Allen's hummingbird | *Selasphorus sasin* | BCC | Breeds along the Pacific coast and winters in central Mexico, migrating through California and northern Mexico. Breeds only in the moist, narrow coastal belt affected by summer fogs. Habitat in breeding range includes coastal scrub and riparian shrubland. | Moderate; breeding only. Suitable breeding habitat exists within riparian woodland areas. This species is not tracked by CNDDB. |

| Table 5.4-2: Special-Status Species, Habitat, and Potential for Occurrence within the Survey Area | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status** | **Habitat** | **Potential for Occurrence within the Survey Area** |
| Bald eagle | *Haliaeetus leucocephalus* | BGEPA, BCC, SE | Typically breeds in forested areas adjacent to large open bodies of water or rivers. Breeding habitat is typically mature forest patches with open areas and edges where they will nest in large trees on the edges of the forest. Typically nests away from areas of human development. | Moderate; foraging habitat is present on the southeastern end of the Survey Area in the vicinity of Coyote Creek and associated lakes and ponds. There is a low potential for breeding in the area due to the high amount of human development. No known occurrences within the Survey Area based on CNDDB records, but one individual was observed flying over Coyote Creek near the existing Metcalf substation during surveys in June 2023. |
| Belding's savannah sparrow | *Passerculus sandwichensis beldingi* | BCC, SE | This rare subspecies of the savannah sparrow (*Passerculus sandwichensis*) occupies coastal salt marshes along the California coast. Nests in pickleweed (*Salicornia virginica*) saltmarsh vegetation. | Low; no suitable saltmarsh habitat occurs within the Survey Area. No known occurrences within the Survey Area based on CNDDB records. |
| Black skimmer | *Rynchops niger* | BCC, CSSC | Occupies mainland coast or barrier islands on sandy beaches, sandbars, shell banks, dredge islands and mudflats, tidal pools, inlets and creeks, saltmarsh wrack and creeks, ponds, lagoons, and estuaries. Almost exclusively coastal, except on large inland lakes. | Low; no suitable coastal habitats exist in the Survey Area, could only occur during migration. This species is not tracked by CNDDB. |

| Table 5.4-2: Special-Status Species, Habitat, and Potential for Occurrence within the Survey Area | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status** | **Habitat** | **Potential for Occurrence within the Survey Area** |
| Bullock's oriole | *Icterus bullockii* | BCC | Breeds in the U.S. and overwinters in Mexico and Central America. Breeds in riparian and oak woodlands, especially where trees are large and well-spaced or in isolated clumps. Sycamores (*Platanus*), cottonwoods (*Populus*), willows (*Salix*), and deciduous oaks seem to be especially favored for nesting but live oaks (*Q. agrifolia*), orchard trees, and occasionally conifers are used. | Moderate; breeding season only. Suitable habitats occur in the vicinity of Metcalf the existing substation on the southeast end of the Survey Area. This species is not tracked by CNDDB. |
| California gull | *Larus californicus* | BCC, SWL | Primarily breeds in inland areas in the U.S. and Canada and overwinters along the Pacific coast. Nearly every habitat within the Pacific coast region is used, including beaches and rocky coasts, mudflats, coastal estuaries, and deltas of rivers and streams. | Moderate; foraging and flyover only, no breeding habitat is present. No known occurrences within the Survey Area based on CNDDB records. |
| California thrasher | *Toxostoma redivivum* | BCC | Occurs from sea level to upper elevations of montane chaparral and lower elevation limits of coniferous and pine-oak woodlands (approximately 5,000 feet). Relies on dense cover and shrub habitats for breeding. | Moderate; potentially suitable shrub and woodland habitats exist in the southeastern end of the Survey Area. This species is not tracked by CNDDB, but one individual was heard vocalizing in the vicinity of Coyote Creek near the existing Metcalf substation during surveys in June 2023. |

**Table 5.4-2: Special-Status Species, Habitat, and Potential for Occurrence within the Survey Area**

| Common Name | Scientific Name | Status | Habitat | Potential for Occurrence within the Survey Area |
|---|---|---|---|---|
| Clark's grebe | *Aechmophorus clarkii* | BCC | Breeds on large lakes and marshes with extensive areas of open water bordered by emergent vegetation throughout western North America. Overwinters primarily in salt or brackish bays, estuaries, or sheltered coasts, less frequently on freshwater lakes, and occasionally on rivers. | Moderate; potentially suitable breeding habitat exists on ponds and lakes in the southeastern portion of the Survey Area near Coyote Creek. This species is not tracked by CNDDB. |
| Common yellowthroat | *Geothlypis thrichas sinuosa* | BCC, CSSC | Occupies thick vegetation in a wide range, from wetlands to prairie to pine forests. More prevalent in wet areas with thick vegetation. | Moderate; potentially suitable thick, wet areas exist within the Survey Area in the vicinity of Coyote Creek near the existing Metcalf substation. No known occurrences within the Survey Area based on CNDDB records. |
| Lawrence's goldfinch | *Carduelis (Spinus) lawrencei* | BCC | Typically occupies arid and open woodlands within chaparral or other brushy areas with tall annual fields and a water source nearby. Oaks are the predominant tree in which this species nests. | Moderate; potentially suitable habitats exist within the Survey Area in the vicinity of Coyote Creek near the existing Metcalf substation. This species is not tracked by CNDDB. |
| Marbled godwit | *Limosa fedoa* | BCC | Breeds on short grass prairies and wetlands of the northern U.S. and Canada. Overwinters along the coast in coastal mudflats adjoining savannahs or meadows, estuaries, sandy beaches, and sandflats. | Low; no suitable coastal habitats exist in the Survey Area, could only occur during migration. This species is not tracked by CNDDB. |

**Table 5.4-2: Special-Status Species, Habitat, and Potential for Occurrence within the Survey Area**

| Common Name | Scientific Name | Status | Habitat | Potential for Occurrence within the Survey Area |
|---|---|---|---|---|
| Nuttall's woodpecker | *Picoides (Dryobates) nuttallii* | BCC | Occurs mostly in oak and riparian deciduous woodland. Nest cavities are built in soft wood, often in dead trunks or limbs of willow, cottonwood, oak, and sycamore. | High; based on the presence of suitable riparian woodland habitat. This species is not tracked by CNDDB (CDFW, 2023b), but there was one observation in the vicinity of Coyote Creek near the existing Metcalf substation during surveys in June 2023. |
| Oak titmouse | *Baeolophus inornatus* | BCC | Occurs primarily in warm, dry oak or oak-pine woodlands. Composition of the oak woodlands varies, but woodland is generally open. Nests primarily in natural cavities and woodpecker-excavated cavities in oak trees. | Low; based on the lack of suitable dry oak woodland habitat. This species is not tracked by CNDDB. |
| Olive-sided flycatcher | *Contopus cooperi* | BCC, CSSC | Breeds primarily in montane and northern coniferous forests. Can occur at any elevation from sea level to timberline, but typically occupies mid- to high-elevation forest. Primarily associated with openings and edge habitats. | Low; based on lack of suitable montane and coniferous forests. No known occurrences within the Survey Area based on CNDDB records. |
| Short-billed dowitcher | *Limnodromus griseus* | BCC | Breeds in bogs and woodlands in Canada. Overwinters along the coasts in coastal mudflats and brackish lagoons. | Low; no suitable coastal habitats exist in the Survey Area, could only occur during migration. This species is not tracked by CNDDB. |

| Table 5.4-2: Special-Status Species, Habitat, and Potential for Occurrence within the Survey Area | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status** | **Habitat** | **Potential for Occurrence within the Survey Area** |
| Western grebe | *Aechmophorus occidentalis* | BCC | Breeds on freshwater lakes and marshes with extensive open water bordered by emergent vegetation. Overwinters along the coast primarily in salt or brackish bays, estuaries, or sheltered coasts, less frequently on freshwater lakes and occasionally on rivers (LaPorte et al., 2020). | Moderate; potentially suitable breeding habitat exists on ponds and lakes in the southeastern portion of the Survey Area near Coyote Creek. This species is not tracked by CNDDB, but an individual was observed along Coyote Creek during surveys in June 2023. |
| Willet | *Tringa semipalmata* | BCC | Breeds on prairies and wetlands in northern U.S. and Canada. Overwinters on coastal California mudflats, marshes, sandy beaches, and rocky coasts. | Low; no suitable coastal habitats exist in the Survey Area, could only occur during migration. This species is not tracked by CNDDB. |
| Wrentit | *Chamaea fasciata* | BCC | Occupies cismontane scrub from sea level to 7,000 feet in elevation. Occurs in coastal sage scrub, northern coastal scrub, coastal hard, and montane chaparral. Breeds in dense shrub understory, including mature riparian valley oak, Douglas fir and redwood forests, early-successional forests, riparian (willow) scrub, coyote bush (*Baccharis sp.*) thickets, and suburban parks and gardens. | Moderate; potentially suitable habitats exist in riparian woodland and shrubland on the southeastern end of the Survey Area in the vicinity of the existing Metcalf substation. This species is not tracked by CNDDB. |
| Yellow-billed magpie | *Pica nuttalli* | BCC | Primarily restricted to oak savanna habitat containing large trees scattered across broad expanses of open ground. Some urban populations nest in native and non-native trees mainly close to rivers and streams and forage in lawns and parks. | High; potentially suitable habitats exist within the Survey Area, primarily on the southeastern end near Coyote Creek, but could also occur in the City limits of San José in large grassy areas. This species is not tracked by CNDDB. |

| Table 5.4-2: Special-Status Species, Habitat, and Potential for Occurrence within the Survey Area | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status** | **Habitat** | **Potential for Occurrence within the Survey Area** |
| Raptors | | MBTA, CFGC | Various. | High; raptors could forage within any of the habitats within the Survey Area and could perch or nest in trees and on transmission line towers. Turkey vultures, red-tailed hawks, a red-shouldered hawk, and a bald eagle were observed during surveys in June and September 2023. |
| **Reptiles** | | | | |
| Western pond turtle | *Emys marmorata* | CSSC | Found in ponds, lakes, streams, creeks, marshes, and irrigation ditches with abundant vegetation and either rocky or muddy bottoms. Found in woodland, forest, and grassland habitats along permanent or nearly permanent water sources. In streams, it prefers pools to shallower areas. Logs, rocks, and exposed banks are required for basking. Nests are typically located along stream or pond margins in areas with full sunlight, but sometimes nests can be as far as 300 feet from the water source. Sometimes terrestrial burrow habitats are used for wintering. | High; suitable open water habitats exist along Coyote Creek and associated ponds and lakes and along Guadalupe River and Los Gatos Creek. There are several known CNDDB occurrences in these areas, and an individual western pond turtle was observed in Coyote Creek during surveys in June 2023. |
| **Amphibians** | | | | |

| Table 5.4-2: Special-Status Species, Habitat, and Potential for Occurrence within the Survey Area | | | | |
|---|---|---|---|---|
| **Common Name** | **Scientific Name** | **Status** | **Habitat** | **Potential for Occurrence within the Survey Area** |
| California red-legged frog | *Rana draytonii* | FT, ST | Requires a variety of habitat elements with aquatic breeding areas embedded within a matrix of riparian and upland dispersal habitats. Breeding sites are in permanent water habitats, including pools and backwaters within streams and creeks, ponds, marshes, springs, sag ponds, dune ponds, lagoons, and stock ponds. Typically, breeding adults are associated with deep, slow-moving water with dense shrubby riparian and emergent vegetation. Upland habitats include downed woody vegetation, leaf litter, and small mammal burrows; habitats that provide protection from predators and prevent desiccation. | Moderate; suitable breeding habitats and upland dispersal habitats exist within the Survey Area in the vicinity of Coyote Creek and associated lakes and ponds. There are no known occurrences within the Survey Area based on CNDDB records, but several occurrences have been recorded approximately 0.5 mile to the southeast of the proposed Grove terminal site. |
| Foothill yellow-legged frog (Central Coast DPS) | *Rana boylii* | FT, SE | Frequents rocky streams and rivers with rocky substrate and open, sunny banks. Usually occurs in forests, chaparral, and woodland habitats. Can be found in isolated pools, vegetated backwaters, and deep, shaded, spring-fed pools. Tadpoles require at least three to four months of water to complete metamorphosis, so this frog occupies primarily perennial or permanent streams. In intermittent streams large groups of adults can be found in persistent pools. Tends to occur within foothills and mountain streams with rocky or cobbly bottoms. | Moderate; suitable perennial stream habitats exist within the Survey Area along Coyote Creek, but this portion of the creek is not very rocky. There are no known occurrences within the Survey Area based on CNDDB records. |

**Table 5.4-2: Special-Status Species, Habitat, and Potential for Occurrence within the Survey Area**

| Common Name | Scientific Name | Status | Habitat | Potential for Occurrence within the Survey Area |
|---|---|---|---|---|
| California tiger salamander (Central California DPS) | *Hydromantes shastae* | FT, ST | Primarily inhabits annual grasslands and open woodlands. Requires upland habitat that is occupied by small burrowing mammals, such as California ground squirrel (*Otospermophilus beecheyi*) and Botta's pocket gopher (*Thommomys bottae*) that create underground systems utilized by the salamanders throughout the year. Breeds in vernal pools and ponds and will sometimes use other livestock and decorative ponds. | Moderate; potentially suitable ponds occur near Coyote Creek, and upland dispersal habitats exist in the vicinity. No known occurrences within the Survey Area based on CNDDB records. |

Sources: Heritage, 2024.

- **FE** = Federally Endangered
- **FT** = Federally Threatened
- **SE** = State-Endangered
- **ST** = State-Threatened
- **SC** = State Candidate Species
- **SWL** = State Watch List Species
- **CSSC** = California Species of Special Concern
- **CFP** = California Fully Protected Species
- **CFGC** = California Fish and Game Code Protected Species
- **CWL** = California Watch List Species
- **BCC** = USFWS Bird of Conservation Concern
- **BGEPA** = Bald and Golden Eagle Protection Act Protected Species
- **MBTA** = Migratory Bird Treatment Act Protected Species
- **Western Bat Working Group-H (WBWG-H)** = The High (H) designation represents those species considered the highest priority for funding, planning, and conservation actions. Information about status and threats to most species could result in effective conservation actions being implemented should a commitment to management exist. These species are imperiled or are at high risk of imperilment.
- **WBWG-M** = The Medium (M) designation indicates a level of concern that should warrant closer evaluation, more research, and conservation actions of both the species and possible threats. A lack of meaningful information is a major obstacle in adequately assessing these species' status and should be considered a threat.
- **CNPS:**
  - **1B** = Plants rare, threatened, or endangered in California or elsewhere
  - **2B** = Plants rare, threatened, or endangered in California but more common elsewhere
  - **3** = Review List: Plants about which more information is needed
  - **4** = Watch List: Plants of limited distribution
  - **0.1** = Plants seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)
  - **0.2** = Plants moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)
  - **0.3** = Plants not very threatened in California (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

### *Bay Checkerspot Butterfly*

The bay checkerspot butterfly (*Euphydryas editha bayensis*) is a Federally threatened butterfly species that is currently only found in the Counties of San Mateo and Santa Clara. They occur within annual grasslands on serpentine soils which harbor habitat for the host plants for this butterfly. The primary larval food plant is dwarf plantain. Other larval food plants may be used if the dwarf plantain is dried up, such as purple owl's clover (*Castilleja densiflora*) and exserted paintbrush. Nectar plants for adults include California goldfields (*Lasthenia califonica*), desert parsley (*Lonatium dissectum*), and tidy-tips (*Layia platyglossa*). These butterflies are known to occur within the Tulare Hill Ecological Preserve and the hillsides on the east side of the Santa Clara Valley which have been designated as critical habitat for the species (Heritage, 2024).

Within the Proposed Project impact areas, there is very little suitable habitat for the bay checkerspot butterfly due to the lack of annual grasslands, but there are numerous flowering species that could occur in the vicinity of these areas, and butterflies could fly through the area in route to other suitable habitat areas across the valley. Species-specific surveys have not been conducted for the bay checkerspot butterfly. USFWS-designated critical habitat for the bay checkerspot butterfly is mapped onto Monterey Road from Tulare Hill Ecological Preserve (**Figure 5.4-5**). Due to the lack of suitable habitat and the level of development along Monterey Road, this inclusion of critical habitat could be due to a mapping error, but mapped designated critical habitat could be impacted by the Proposed Project.

### *Monarch Butterfly*

The monarch butterfly (*Danaus plexippus*) (Federal-candidate species) is a butterfly in the order Lepidoptera that occurs in North, Central, and South America; Australia; New Zealand; islands of the Pacific and Caribbean; and elsewhere. During the breeding season, monarchs lay their eggs on their obligate milkweed host plant (primarily *Asclepias* spp.), and larvae emerge after two to five days. Larvae develop over a period of nine to 18 days, feeding on milkweed and sequestering toxic cardenolides as a defense against predators. The larva then pupates into chrysalis before emerging six to 14 days later as an adult monarch butterfly (Heritage, 2024).

North America has several dozen native milkweed species with which monarchs co-evolved and upon which they rely to complete their life cycle. Monarchs begin migrating in the fall in western North America to overwintering groves along the California coast into northern Baja California and down to central Mexico. During breeding and migration, monarch butterflies require a diversity of blooming nectar resources and milkweed embedded within this diverse flowering habitat. Monarchs require very specific microclimatic conditions at overwintering sites, including dappled sunlight, high humidity, fresh water, and an absence of freezing temperatures or high winds. The trees most commonly used for roosting include the nonnative blue gum eucalyptus (*Eucalyptus globulus*), the native Monterey pine (*Pinus radiata*), and Monterey cypress (*Cupressus macrocarpa*), but clusters can be found on other tree species as well, such as western sycamore (*Platanus racemosa*) and coast live oak (*Quercus agrifolia*) (Heritage, 2024).

Within the Proposed Project impact areas, there is a small amount of potentially suitable habitat for foraging monarchs, and overwintering monarchs could potentially use coast live oak, western sycamore, or other tree species in the vicinity of the impact areas. Milkweed species and other flowering plants could be present within the impact areas and in the immediate vicinity that could be used by monarchs. Species-specific surveys have not been conducted for monarch butterflies.

### *Crotch's Bumblebee*

Crotch's bumblebee (*Bombus crotchii*) is a State-candidate species bumblebee that inhabits open grassland and scrub habitats and requires a hotter and drier environment than other bumblebee species. This bumblebee primarily nests underground in colonies. Crotch's bumblebee, like most bumblebees, are generalist foragers and have been reported visiting a wide variety of flowering plants. It is a short-tongued species and, thus, is best suited to forage at open flowers with short corollas. Plants in the genera *Asclepias, Chaenactis, Lupinus, Medicago, Phacelia,* and *Salvia* are example food plants (Heritage, 2024).

Within the Proposed Project impact areas, there is a small amount of suitable habitat for Crotch's bumblebee, and, in the Survey Area and vicinity, there is a moderate amount of habitat that could be suitable. There have been two CNDDB occurrences within five miles of the Survey Area from 2019 and 2020; one in grassland habitat in Saint Teresa County Park approximately three miles southwest of the existing Metcalf substation, and one in a private residence yard near Santa Teresa High School approximately 1.5 miles southwest of the Proposed Project line (Heritage, 2024). Potentially suitable flowering plant species occur within the Survey Area and could be impacted by Proposed Project construction. Species-specific surveys have not been conducted for Crotch's bumblebee.

### *Steelhead*

The Central California Coast steelhead DPS (*Oncorhynchus mykiss irideus*) is a Federal- and State-threatened anadromous coastal rainbow trout fish species. The Central California Coast population includes all populations below natural and manmade barriers from the Russian River (Sonoma County) south to Aptos Creek (Santa Cruz County). These fish are born in freshwater streams and generally migrate to the ocean where most of their growth occurs, then they return to freshwater to spawn. They may return to their spawning grounds several times over the course of their lives. Some steelhead will stay in creeks and streams for longer periods of their life. Steelhead in the Central California Coast region run up streams and rivers in the region between December and February, when flows are generally the highest. Steelhead are known to occur along Coyote Creek and the Guadalupe River and will spawn in these streams between February and April (Heritage, 2024). NMFS designated critical habitat for the Central California Coast steelhead DPS occurs along Coyote Creek and the Guadalupe River within the Survey Area (**Figure 5.4-5**).

Within the Proposed Project impact areas, there is potential habitat for steelhead in Coyote Creek at the location where the proposed Metcalf to Grove 500 kilovolt (kV) transmission line crosses Coyote Creek. This location is proposed to include horizontal directional drilling (HDD) under Coyote Creek and is not anticipated to impact the waterway itself or any habitat for steelhead. This area is mapped as designated critical habitat for steelhead. The habitat along the Guadalupe River and Los Gatos Creek where steelhead may also occur is not expected to be impacted by the Proposed Project.

### *San Joaquin Kit Fox*

The San Joaquin kit fox (SJKF) (*Vulpes macrotis mutica*) is a Federally endangered and State-threatened subspecies of the kit fox that inhabits grasslands and scrublands. They occupy many areas that have been modified by human development, such as oil fields, row crop fields, orchards, and grazed annual grasslands. Oak woodland, alkali sink scrubland, and vernal pool

and alkali meadow communities also provide suitable habitat. SJKF are primarily nocturnal and use dens for housing and protection. Dens are usually dug in the soil but will sometimes be in man-made structures, such as pipes, culverts, and banks in roadbeds (Heritage, 2024).

Within the Proposed Project impact areas, there is very little suitable habitat for the SJKF due to a majority of the impacts occurring within urban and disturbed habitats. There is some potentially suitable habitat within the orchard that is proposed for the Grove terminal, and SJKF individuals could move across the Proposed Project area while moving from one side of the valley to the other. No burrows were observed during field surveys, but protocol den surveys have not been conducted.

### *American Badger*

The American badger (*Taxidea taxus*) is a California species of special concern that may be found in nearly any habitat in California, but they prefer open areas in relatively dry grasslands, open forests, and creosote bush scrub, as well as occasionally agricultural land. Badgers are burrowing species that prefer areas with sandy/loamy, friable soils where burrowing is easier or where burrows already exist for occupation (Heritage, 2024). Badgers are carnivores, feeding primarily on rodents but are also opportunistic feeders, sometimes eating reptiles, insects, and carrion.

There are several known occurrences of American badger in the vicinity of the Survey Area, primarily to the southeast of the Proposed Project, based on CNDDB records (Heritage, 2024). There is a moderate potential that this species could occur in any of the natural habitat types within the Survey Area. Loamy soils exist in the southeast portion of the Survey Area that could be suitable for burrowing. No badgers or suitable burrows were observed during field surveys, but badger-specific surveys have not been conducted.

### *Swainson's Hawk*

The Swainson's hawk (*Buteo swainsoni*) is a State-threatened raptor that inhabits large open areas of grass-dominated vegetation, agricultural crops, and/or sparse shrubland with an abundant and available prey base. Suitable nesting habitat includes trees within mature riparian forest or corridors, lone oak trees and oak groves, and mature roadside trees. Trees on the periphery of riparian habitat are preferred (Heritage, 2024). Swainson's hawks typically migrate south to South America for the winter period and breed in the western United States.

Within the Proposed Project impact areas, there are potentially suitable Swainson's hawk nesting trees primarily in association with the Coyote Creek riparian corridor in the vicinity of the existing Metcalf substation, and there are small amounts of foraging habitat in the vicinity. There are two CNDDB occurrences east of the Survey Area near the Bailey Avenue and Monterey Road intersection from 2021 (Heritage, 2024). No protocol surveys have been conducted for Swainson's hawks.

### *Tricolored Blackbird*

The tricolored blackbird (*Agelaius tricolor*) is a State-threatened bird species that occupies dense, marsh vegetation. The geographic range of the tricolored blackbird is restricted to California's Central Valley and surrounding foothills and coastal and inland localities in southern and central California. Emergent vegetation is used for nesting, and it must occur in large, contiguous blocks, since small, isolated patches and more narrow strips are generally avoided. Foraging occurs in

the vicinity of nesting areas in annual grassland fields, agricultural areas, in oak woodlands, and pasture areas. They feed on grains, seeds, and invertebrates (Heritage, 2024).

Within the Proposed Project impact areas, there is a small amount of potentially suitable habitat along Coyote Creek in the vicinity of the proposed Metcalf to Grove 500 kV transmission line and associated limits of construction. Nesting habitat could be present in the ponds and lakes associated with Coyote Creek, and individuals could forage in this area. No protocol surveys have been conducted for tricolored blackbirds.

***Bald Eagle***

Bald eagles (*Haliaeetus leucocephalus*) are protected by the Bald and Golden Eagle Protection Act (BGEPA) and are a State-endangered eagle species. These large raptors typically breed in forested areas adjacent to large bodies of water that are used for foraging. They generally breed and occupy areas that are far from human development and disturbance. Nest sites are typically in large, prominent trees with good views of the surroundings and with platforms for take-off. The trees must have limbs large enough to support their large-sized nests. Bald eagles are opportunistic feeders that will consume aquatic mammals, birds, crustaceans, reptiles, amphibians, and carrion, but prefer fish which are taken near the surface of bodies of water (Heritage, 2024).

Within the Proposed Project impact areas, there is a very small amount of suitable habitat, but bald eagles could nest in the vicinity of Coyote Creek and may forage in the creek itself or in the ponds and lakes that are in the area. One bald eagle individual was observed flying over Coyote Creek near the existing Metcalf substation, but no nests were observed during surveys. No bald eagle species-specific or other raptor surveys have been conducted for the Proposed Project.

***Raptors***

Per CFGC 3503.5, all raptors are protected under state law. Several Federal- or State-threatened, USFWS B CC, CDFW Fully Protected, or Species of Special Concern raptor species have a high potential to occur within the Survey Area at different times throughout the year (Heritage, 2024). Examples include Cooper's hawk (*Accipiter cooperii*), merlin (*Falco columbarius*), Swainson's hawk, and sharp-shinned hawk (*Accipiter striatus*). Examples of non-listed raptor species that are known to occur or have a high potential to occur within the Survey Area include: red-shouldered hawk (*Buteo lineatus*), red-tailed hawk (*Buteo jamaicensis*), barn owl (*Tyto alba*), great-horned owl (*Bubo virginianus*), turkey vulture (*Cathartes aura*), and American kestrel (*Falco sparverius*). These raptor species with the highest potential to occur in the Survey Area use and inhabit hardwood and riparian woodland habitats and use urban and suburban habitats as well. Habitat use varies based on raptor species and time of year, but foraging and nesting individuals have the potential to occur within the Survey Area. Raptor nest surveys have not been conducted for the Proposed Project.

***California Red-legged Frog***

The California red-legged frog (CRLF) (*Rana draytonii*) is a Federally and State-threatened frog species that is endemic to California and Baja California, Mexico. Breeding sites for CRLF are in a variety of aquatic habitats; larvae, tadpoles, and metamorphs have been collected from streams, deep pools, backwaters within streams and creeks, ponds, marshes, sag ponds, dune ponds, and lagoons. Breeding adults are often associated with deep, still, slow moving water and dense,

shrubby riparian or emergent vegetation. CRLF typically cannot breed in ponds and creeks with bullfrogs (*Lithobates catesbeianus*) and fish species which are predators of larvae and tadpoles. During periods of wet weather, some adults may make overland excursions through upland habitats up to two miles from breeding locations (Heritage, 2024). They may use almost any habitat type during upland dispersal periods and may use small mammal burrows and leaf litter for cover.

One study has been conducted within and in the vicinity of the Survey Area looking at the linkage between the east and west sides of the Coyote Valley for CRLF. This study found that Coyote Creek may be expected to provide dispersal and foraging and potential breeding habitat for CRLF, although surveys in 2019 from Metcalf Road upstream to Anderson Dam had negative results, potentially because of fish and bullfrog occurrences. Additionally, Coyote Ranch Pond was listed as a potential breeding site, but no CRLF were observed during surveys in 2019. Multiple streams and canals within Coyote Valley provide potential movement corridors for CRLF within the vicinity of the Survey Area (Heritage, 2024).

Within the Proposed Project impact areas, CRLF have the potential to occur within Coyote Creek in the vicinity of the proposed Metcalf to Grove 500 kV transmission line and associated limits of construction. CRLF have the potential to be encountered within any habitats in the vicinity of Coyote Creek as well during upland dispersal periods, such as within the orchard property at the proposed Grove terminal. Known populations of CRLF occur on the east side of the valley and east of U.S. Route 101 (Heritage, 2024). No species-specific surveys have been conducted for CRLF.

***California Tiger Salamander***

The Central California DPS of the California tiger salamander (CTS) (*Ambystoma californiense*) is a Federal- and State-threatened species. The CTS has an obligate biphasic life cycle during which it utilizes both aquatic and terrestrial habitats. The salamander larvae develop in the vernal pools and ponds in which they are born, and once the metamorph leaves its natal pond and enters a burrow, it will then spend a majority of its life underground. Adults engage in mass migrations during a few rainy nights per year, typically from November through April. During these rain events, adults leave their burrows and return to breeding ponds to mate, then return to the burrows. Females lay their eggs in water, attaching them to twigs and leaves or other debris. The larval stage lasts approximately three to six months, with metamorphosis beginning in late spring or early summer. Metamorphs then leave their ponds and seek out underground burrows. Upland dispersal may occur within 1.3 miles of breeding ponds (Heritage, 2024).

One study has been conducted within and in the vicinity of the Survey Area looking at the linkage between the east and west sides of the Coyote Valley for CTS (Heritage, 2024). This study found that CTS do not breed in Coyote Creek, and they would not use Coyote Creek as aquatic foraging or preferential dispersal habitat. Coyote Creek may be considered a substantial impediment to CTS movement due to high winter flows when CTS are dispersing, dense riparian vegetation, absence of typical rodent burrow refugia, steep banks that are difficult to climb, and a concentration of predators such as fish, bullfrogs, raccoons, skunks, herons, etc. (Heritage, 2024).

Within the Proposed Project impact areas, there is very little potential habitat for CTS due to a lack of suitable ponds, but dispersing CTS have a small potential to use the orchard property at the proposed Grove terminal if suitable mammal burrows exist. This is unlikely due to the level of disturbance associated with the orchard. In the vicinity of the Proposed Project, there are several

areas that could potentially be used for breeding, including the ponds associated with Coyote Creek, and dispersing individuals could be found within the Survey Area and impact areas. CTS occurrences have been recorded in the vicinity of the Survey Area on the east and west sides of the valley (Heritage, 2024).

***Western Pond Turtle***

The western pond turtle (WPT) (*Actinemys marmorata*) is a California Species of Special Concern. This aquatic turtle lives in streams, ponds, lakes, and permanent and ephemeral wetlands. WPT spend most of their lives in the water, but they also require terrestrial habitats for nesting. Nesting occurs from late May through the middle of July. Females will find a suitable site, usually with dry soil, sparse vegetation, and a southern exposure. The female will dig a hole for a nest, deposit eggs, and cover the eggs with vegetation and wet soil. WPT are omnivorous and will eat a variety of insects, tadpoles, frog eggs, snails, beetles, fish, algae, lily pods, tule, and cattail roots (Heritage, 2024).

One study has been conducted within and in the vicinity of the Survey Area looking at the linkage between the east and west sides of the Coyote Valley for WPT (Heritage, 2024). This study found that WPTs occur along Coyote Creek and its associated ponds from the Ogier Ponds downstream to Metcalf Ponds north of Metcalf Road. Coyote Creek itself is used as a migration and dispersal corridor for WPT (Heritage, 2024).

Within the Proposed Project impact areas, suitable habitat exists along Coyote Creek in the vicinity of the proposed Metcalf to Grove 500 kV transmission line and associated limits of construction, and WPT individuals could use areas in the immediate vicinity of Coyote Creek for breeding purposes.

***Foothill Yellow-legged Frog***

The Central Coast DPS of the foothill yellow-legged frog (FYLF) (*Rana boylii*) is a Federally threatened and State-endangered frog species. The FYLF lives in foothill and mountain streams in a wide variety of vegetation types, including valley-foothill hardwood, conifer, and riparian woodlands, mixed chaparral, and wet meadows. The FYLF is closely associated with streams and is rarely observed far from the water's edge. Breeding stream habitat is typically shallow, rocky, and at least partially exposed to direct sunlight. Breeding occurs from March through May as stream flows are decreasing near the end of the wet season. Eggs are laid in shallow pools, protected edgewater areas, and are usually associated with cobble (Heritage, 2024).

Within the Proposed Project impact area, there is very little potential for FYLF to occur due to the lack of rocky and cobbly stream in this portion of Coyote Creek; they are expected to occur further upstream in the Coyote Creek watershed.

#### 5.4.1.6 Critical Habitat

The USFWS and NMFS designate critical habitat for endangered and threatened species under the Endangered Species Act (ESA). Critical habitat is designated for the survival and recovery of Federally listed endangered or threatened species. Protected habitat includes areas for foraging, breeding, roosting, shelter, and movement or migration. As discussed previously, there is USFWS-designated critical habitat for the bay checkerspot butterfly located on the east and west side of the Survey Area near the existing Metcalf substation and extending into the Proposed

Project impact area along Monterey Road, and there is NMFS-designated critical habitat for the Central California Coast DPS of steelhead along Coyote Creek and the Guadalupe River (Heritage, 2024; **Figure 5.4-5**). Additionally, there is designated critical habitat for the California tiger salamander approximately two miles to the east and west of the Survey Area in the foothills of the Santa Clara Valley and designated critical habitat for the California red-legged frog on the east side of the valley (Heritage, 2024).

#### 5.4.1.7 Native Wildlife Corridors and Nursery Sites

Wildlife migration corridors are areas that connect suitable wildlife habitats in a region that would otherwise be fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features (e.g., canyon drainages, ridgelines, or areas with vegetation cover) provide corridors for wildlife travel. Wildlife corridors are important because they provide access to mates, food, and water; allow the dispersal of individuals away from high-population or high-density areas; and facilitate genetic diversity. Impacts to wildlife corridors, such as human disturbance and development, can cause harm to migrating species, cause species to exceed population thresholds in fragmented patches, or prevent healthy gene flow between populations.

Wildlife species migrate through both upland areas and drainage areas, depending on the species. Species that need protective cover from predators (e.g., mammals, reptiles, and smaller avian species) tend to migrate along natural drainages and riparian corridors that have high vegetative cover. These areas also serve as important sources of food resources (e.g., insects and seeds) for these species.

The California Essential Habitat Connectivity Project (CEHC) maintains a Statewide Essential Habitat Connectivity Map, which broadly depicts large, relatively natural habitat blocks that support native biodiversity (Natural Landscape Blocks) and areas essential for ecological connectivity between them (Essential Connectivity Areas) (Spencer et al., 2010). Within the City of San José area, there are no Essential Connectivity Areas, but on the east side of the Survey Area and Proposed Project region there is a large area of Essential Connectivity Areas from approximately Bernal Road along Monterey Road to the eastern end of the Survey Area (Spencer et al., 2010; CDFW, 2023d). This area acts as a linkage across the Santa Clara Valley floor between the Diablo Range to the east and the Santa Cruz Mountains to the west. The highways in the vicinity of this linkage area may act as wildlife movement barriers, but there are multiple culverts and bridges under these highways that could be used by wildlife. Additionally, Coyote Creek is mapped as a potential riparian connection (Spencer et al., 2010; CDFW, 2023d). This area could act as a local migration corridor for various terrestrial species as well as a watercourse for aquatic species.

The Santa Clara Valley Open Space Authority and Conservation Biology Institute published a report in 2017 regarding landscape linkages within the Coyote Valley (Santa Clara Valley Open Space Authority and Conservation Biology Institute, 2017). This report focuses on the importance of the Coyote Valley as a landscape linkage for plants and wildlife between the Santa Cruz Mountains and the Diablo Range. This area is defined as one of the most important wildlife connectivity areas in California. Several studies were researched in preparation of the 2017 report, and they showed that there are movement pathways for mammals, amphibians, and reptiles from the Diablo Range to the east to the Santa Cruz foothills to the west, and vice versa (Diamond and Snyder, 2016; Philips et al., 2012; H.T. Harvey and Associates, 2020). One of the main linkages is Fisher Creek and its associated riparian corridor, which links the Santa Cruz foothills across the valley floor, under Monterey Road through the Monterey Road Fisher Creek

culvert into the Coyote Creek Parkway, along Coyote Creek, and then under U.S. Route 101 to the Diablo Range (Santa Clara Valley Open Space Authority and Conservation Biology Institute, 2017). Numerous other culverts and underpasses were found to be used occasionally, but there are opportunities for enhancement of these areas and creation of new culverts/underpasses to allow for more safe movement. These studies identified Monterey Road as a large barrier to wildlife movement due to a lack of safe pathways under the road; the Fisher Creek underpass acts as the only movement pathway (Santa Clara Valley Open Space Authority and Conservation Biology Institute, 2017).

The Proposed Project lies within the Pacific Flyway—an important north-south migration corridor that runs along the Pacific coast of the Americas from Alaska to Patagonia, including all of North America lying west of the Rocky Mountains. The Pacific Flyway links breeding grounds to the north with wintering areas to the south and is used by many different species of birds during migration. Many birds (especially waterfowl) use locations in California's Sacramento Valley as a stopover point or wintering area. The southeastern end of the Survey Area contains significant water resources that could be used by migrating waterfowl and contains potential foraging areas during migration for a variety of bird species.

The southeastern end of the Proposed Project area and Survey Area may provide potential wildlife nursery sites within hardwood woodland and annual grassland habitat types.

#### 5.4.1.8 Biological Resource Management Areas

The Proposed Project and Survey Area do not occur within any biological resource management areas, and there are no adopted plans applicable to the Proposed Project.

### 5.4.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 5.4.2.1 Biological Resources Regulatory Setting

**Federal**

***Federal Endangered Species Act of 1973***

The ESA of 1973 (16 United States Code [U.S.C.] 1531–1544), as amended, protects Federally listed threatened and endangered species from unlawful take. "Take" under the ESA includes activities such as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." The USFWS regulations define harm to include some type of "significant habitat modification or degradation."

***Migratory Bird Treaty Act***

The Migratory Bird Treaty Act of 1918 (16 U.S.C. 703 et seq.) makes it unlawful to pursue, hunt, take, capture, or kill; attempt to take, capture, or kill; possess; offer to or sell, barter, purchase, deliver, or cause to be shipped, exported, imported, transported, carried, or received any native migratory bird, part, nest, egg, or product. Nearly all North American bird species are classified as "migratory birds" and are subject to protection under this act, including all bird species that are discussed in this document.

### *Bald and Golden Eagle Protection Act*

The BGEPA (16 U.S.C. 668-668c), enacted in 1940 and as amended, prohibits anyone, without a permit issued by the USFWS, from "taking" bald and golden eagles, including their parts, nests, or eggs. The BGEPA defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb." For the purposes of these guidelines, "disturb" means: "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available:

- injury to an eagle; or
- a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior; or
- nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

### *Clean Water Act*

The CWA (33 U.S.C. 1251 et seq.), as amended, provides a structure for regulating the discharge of pollutants into the "waters of the United States". Through this Act, the Environmental Protection Agency (EPA) is given the authority to implement pollution control programs. These include setting wastewater standards for industry and water quality standards for contaminants in surface waters. The discharge of any pollutant from a point source into navigable waters is illegal unless permitted under the Act's provisions.

Section 404 of the CWA regulates the discharge of dredged, excavated, or fill material in wetlands, streams, rivers, and other "waters of the United States". The U.S. Army Corps of Engineers (USACE) is the Federal agency authorized to issue Section 404 permits for certain activities conducted in wetlands or other "waters of the United States" Section 401 of the CWA grants each state the right to ensure that the state's interests are protected in relation to any Federally permitted activity resulting in any discharge into navigable waters within the state. In California, the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs) are responsible for implementing Section 401 of the CWA. For a proposed project that requires a USACE CWA Section 404 permit, the RWQCB must certify that such discharge complies with state water quality standards through a Water Quality Certification determination under Section 401 of the CWA.

The EPA and USACE have jurisdiction over wetlands and other "waters of the United States" that are subject to Section 404 of the CWA or Section 10 of the Rivers and Harbors Act.

## State

### *California Endangered Species Act*

The CDFW administers the California Endangered Species Act (CESA) of 1984, which prohibits the "taking" of listed species except as otherwise provided in state law. Section 86 of the CFGC defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Under certain circumstances, the CESA applies these take prohibitions to species petitioned for listing (state candidates). Pursuant to the requirements of the CESA, state lead agencies (as defined under CEQA Public Resources Code Section 21067) are required to consult with the CDFW to ensure that any action or project is not likely to jeopardize the continued

existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat. Additionally, the CDFW encourages informal consultation on any proposed project that may impact a candidate species. The CESA requires the CDFW to maintain a list of threatened and endangered species. The CDFW also maintains a list of candidates for listing under the CESA and of species of special concern (or watch list species).

***State Fully Protected Species***

CFGC Sections 3511, 4700, 5050, and 5515 designate 37 species of wildlife as Fully Protected in California. The classification of Fully Protected was the State's initial effort in the 1960s to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, mammals, amphibians and reptiles, birds, and mammals. Most Fully Protected species have also been listed as threatened or endangered species under ESA or CESA. Fully Protected species may not be taken or possessed at any time, and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

***California Fish and Game Code Section 1602***

Under Section 1602 of the CFGC, CDFW regulates activities that would divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. CDFW has jurisdiction over riparian habitats associated with watercourses. Jurisdictional waters are delineated by the outer edge of riparian vegetation or at the top of the bank of streams or lakes, whichever is wider. Section 1602 of the CFGC requires any person who proposes a project that would substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake or use materials from a streambed to notify the CDFW before beginning the project. If the CDFW determines that the project may adversely affect existing fish and wildlife resources, a Lake or Streambed Alteration Agreement (LSAA) is required.

***Native Plant Protection Act***

The Native Plant Protection Act (NPPA) (CFGC Section 1900-1913) prohibits the taking, possessing, or sale within the State of any plant listed by CDFW as rare, threatened, or endangered. An exception to this prohibition allows landowners, under specified circumstances, to take listed plant species, provided that the owners first notify CDFW at least ten days prior to the initiation of activities that would destroy them. The NPPA exempts from "take" prohibition "the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right of way."

***Porter-Cologne Water Quality Control Act***

The Porter-Cologne Act grants the SWRCB and the RWQCBs power to protect water quality and is the primary vehicle for implementation of California's responsibilities under the Federal CWA. Any person proposing to discharge waste to "waters of the State" within any region must file a report of waste discharge with the appropriate regional board.

### *California Migratory Bird Protection Act*

Assembly Bill (AB) 454 is an act to amend, repeal, and add Section 3513 of the CFGC, relating to migratory birds. This act was approved by the Governor on September 27, 2019. This AB amends Section 3513 to read: "It is unlawful to take or possess any migratory nongame bird as designated in the Federal Migratory Bird Treaty Act (16 U.S.C. Sec. 703 et seq.) before January 1, 2017, any additional migratory nongame bird that may be designated in that federal act after that date, or any part of a migratory nongame bird described in this section, except as provided by rules and regulations adopted by the United States Secretary of the Interior under that federal act before January 1, 2017, or subsequent rules or regulations adopted pursuant to that federal act, unless those rules or regulations are inconsistent with this code."

## Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, "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 the City of San José and the County of Santa Clara do not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section includes a summary of local biological resources-related policies, plans, or programs for informational purposes. Although LS Power Grid California, LLC ("LS Power") is not subject to local discretionary permitting, ministerial permits would be secured as appropriate.

### *County of Santa Clara General Plan*

The following goals and policies from the County of Santa Clara General Plan (County of Santa Clara, 1994) are relevant to biological resources and have been provided for informational purposes.

*Parks & Recreation – Trails & Pathways*

**Policy C-PR 30.1** Levels-of-use and types-of-use on trails shall be controlled to avoid unsafe use conditions or severe environmental degradation.

**Policy C-PR 31** Use of motorized vehicles on trails shall be prohibited, except for wheelchairs, maintenance, and emergency vehicles.

**Policy C-PR 33.5** Public improvement projects, such as road widenings, bridge construction, and flood control projects, that may impact existing or proposed trails should be designed to facilitate provision of shared use.

*Resource Conservation – Water Supply Resources*

**Policy C-RC 7** Countywide land use and growth management planning should be coordinated with overall water supply planning by the Santa Clara Valley Water District (SCVWD or "Valley Water") in order to maximize dependability of long term water supply resources.

*Resource Conservation – Habitat & Biodiversity*

**Policy C-RC 27** Habitat types and biodiversity within Santa Clara County and the region should be maintained and enhanced for their ecological, functional, aesthetic, and recreational importance.

**Policy C-RC 28** The general approach to preserving and enhancing habitat and biodiversity countywide should include the following strategies: Improve current knowledge and awareness of habitats and natural areas; protect the biological integrity of critical habitat areas; encourage habitat restoration; evaluate the effectiveness of environmental mitigations.

**Policy C-RC 30** Habitat and other resource areas not suitable or intended for urbanization should be excluded from urbanization, and non-urban development which occurs within resource conservation areas should minimize impacts upon habitat and biodiversity.

**Policy C-RC 31** Areas of habitat richest in biodiversity and necessary for preserving threatened or endangered species should be formally designated to receive greatest priority for preservation, including baylands and riparian areas, serpentine areas, and other habitat types of major significance.

**Policy C-RC 32** Land uses permitted in resource conservation areas should not be allowed to degrade the integrity of natural habitat.

**Policy C-RC 33** Linkages and corridors between habitat areas should be provided to allow for migration and otherwise compensate for the effects of habitat fragmentation.

**Policy C-RC 34** Restoration of habitats should be encouraged and utilized where feasible, especially in cases where habitat preservation and flood control, water quality, or other objectives can be successfully combined.

**Policy C-RC 35** The status of various threatened and endangered species and the effectiveness of strategies and programs to preserve biodiversity should be monitored and evaluated on an ongoing basis.

**Policy C-RC 36** Specific project mitigations for the purpose of preserving habitat should be monitored for a period of time to assure the likelihood of their effectiveness.

### *City of San José General Plan*

The following goals and policies from the City of San José General Plan (City of San José, 2023) are relevant to biological resources and have been provided for informational purposes.

**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 non-native/invasive plants along riparian corridors and adjacent areas.

**Goal ER-4** **Special-Status Plants and Animals.** Preserve, manage, and restore habitat suitable for special-status species, including threatened and endangered species.

**Policy ER-4.1** Preserve and restore, to the greatest extent feasible, habitat areas that support special-status species. Avoid development in such habitats unless no feasible alternatives exist and mitigation is provided of equivalent value.

**Policy ER-4.3** Prohibit planting of invasive non-native plant species in natural habitats that support special-status species.

**Policy ER-4.4** Require that development projects incorporate mitigation measures to avoid and minimize impacts to individuals of special-status species.

**Goal ER-5** **Migratory Birds.** Protect migratory birds from injury or mortality.

**Policy ER-5.1** Avoid implementing activities that result in the loss of active native birds' nests, including both direct loss and indirect loss through abandonment, of native birds. Avoidance of activities that could result in impacts to nests during the breeding season or maintenance of buffers between such activities and active nests would avoid such impacts.

**Policy ER-5.2** Require that development projects incorporate measures to avoid impacts to nesting migratory birds.

**Goal ER-6** **Urban Natural Interface.** Minimize adverse effects of urbanization on natural lands adjacent to the City's developed areas.

**Policy ER-6.3** Employ low-glare lighting in areas developed adjacent to natural areas, including riparian woodlands. Any high-intensity lighting used near natural areas will be placed as close to the ground as possible and directed downward or away from natural areas.

**Policy ER-6.7** Include barriers to animal movement within new development and, when possible, within existing development, to prevent movement of animals (e.g., pets and wildlife) between developed areas and natural habitat areas where such barriers will help to protect sensitive species.

**Policy ER-6.8** Design and construct development to avoid changes in drainage patterns across adjacent natural areas and for adjacent native trees, such as oaks.

**Goal ER-7** **Wildlife Movement.** Minimize adverse effects of future development on wildlife movement and remove or reduce existing impediments to wildlife movement.

**Policy ER-7.3** Where new road crossings of streams are constructed, or existing culverts are replaced or improved, design them to allow movement of aquatic species present in any watercourse crossed by the road. Use clear-span bridges in place of culverts where feasible.

***Santa Clara Valley Landscape Linkage***

The Santa Clara Valley Open Space Authority and the Conservation Biology Institute generated the Coyote Valley Landscape Linkage report (2017), which puts forth goals and principles to promote and maintain habitat linkages across Coyote Valley. The goals include:

- Permanently protect habitat connectivity for terrestrial and aquatic species.
- Provide live-in and dispersal habitat for a full community of species, including special-status species, which can also facilitate daily and seasonal migrations, as well as long-term range shifts as species adapt to a changing climate.
- Accommodate the range of taxa and guilds between mountain ranges, even those that are not currently in the area but might be in the future as species shift distribution in response to climate change.
- Protect, expand, and connect habitat patches in a way that minimizes edge effects.
- Prevent linkage fragmentation from future incompatible land uses (e.g., urban development, transportation projects, etc.).
- Use landscape resilience planning principles for sustainability in an urban ecosystem in the face of a changing and uncertain future:
    - Incorporate as much terrestrial and aquatic landform diversity, complexity, and connectivity as possible.
    - Provide redundancy of elements (both habitat types and safe crossings).
    - Consider historical ecology to understand the driving factors of setting.
    - Provide space for dynamic natural processes (e.g., flooding) to operate.
    - Develop the project at the scale at which landscape processes can operate meaningfully.
- Integrate wildland conservation with other land uses where possible to promote multiple social and community benefits (e.g., agriculture, recreation, stormwater management).

There are numerous design principles that are proposed to achieve these goals. These design principles include:

- Maintain a wide wildland area;
- Protect nature's stage – areas with the least fragmentation, existing protected lands, and the most landform diversity and topographic and hydrological complexity;
- Restore freshwater wetlands and a more natural hydrologic regime;
- Restore a mosaic of natural communities along the valley floor, especially rare habitat that complements wetlands, such as Valley oak woodlands and savanna;
- Improve permeability throughout the linkage by maintaining as much open space as possible and constraining further urban development;
- Use low-intensity agriculture to complement the linkage and provide additional habitat complexity and diversity;

- Increase the number of engineered strategic connections across the more significant barriers;
- Use multi-benefit landscape planning to ensure actions maximize public benefits while protecting unique values.

#### 5.4.2.2 Habitat Conservation Plan

The Proposed Project lies within the PG&E San Francisco Bay Operations and Maintenance Habitat Conservation Plan ("Bay Area O&M HCP") (PG&E, 2017) and the Santa Clara Valley HCP (County of Santa Clara et al., 2012).

***PG&E's San Francisco Bay Operations and Maintenance Habitat Conservation Plan***

PG&E's Bay Area O&M HCP for their San Francisco Bay Area activities covers 18 wildlife and 13 plant species, and the purpose is to enable PG&E to continue to conduct current and future O&M activities within the nine counties of the San Francisco Bay Area while avoiding, minimizing, and mitigating for temporary and permanent impacts on threatened- and endangered-species habitat that could result from PG&E's ongoing O&M activities (PG&E, 2017). LS Power is not a stakeholder of PG&E's Bay Area O&M HCP. Furthermore, the Bay Area O&M HCP does not cover the type of activities that are associated with the Proposed Project.

***Santa Clara Valley Habitat Conservation Plan***

The Cities of Gilroy, Morgan Hill, and San José, the County of Santa Clara, the Santa Clara Valley Transportation Authority, and the SCVWD, in association with the USFWS and the CDFW, conducted a collaborative process to prepare and implement a habitat conservation plan known as the Santa Clara Valley HCP. The Santa Clara Valley HCP is intended to promote the recovery of endangered species and enhance ecological diversity and function, while accommodating planned growth on approximately 500,000 acres, or two-thirds of southern Santa Clara County. The Santa Clara Valley Habitat Agency implements the plan. The Santa Clara HCP is a long-range plan to protect and enhance ecological diversity and function within a large section of the County of Santa Clara, while allowing for currently planned development and growth. This HCP provides a framework for the protection of natural resources, while streamlining and improving the environmental permitting process for both private and public development, including activities such as road, water, and other infrastructure construction and maintenance work. The Santa Clara Valley HCP is intended to provide environmental benefit by resulting in the creation of a number of new habitats reserves larger in scale and more ecologically valuable than the fragmented, piecemeal habitats yielded by mitigating projects on an individual basis.

The Proposed Project is located within the permit area for the Santa Clara Valley HCP. The Santa Clara Valley HCP covers public and private utility activities within the planning limits of urban growth (as defined by the HCP) such as those that are associated with the Proposed Project. A majority of the Proposed Project occurs 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 and reduces the number and scope of required biological studies. The Santa Clara Valley HCP covers public and private utility activities, but coverage of the Proposed Project has not been confirmed. LS Power would confirm whether or not the

Proposed Project is covered by the Santa Clara Valley HCP, as the Proposed Project could potentially opt into and be covered by this HCP.

## 5.4.3 IMPACT QUESTIONS

### 5.4.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to biological resources come from the CEQA, Appendix G, Environmental Checklist. According to the CEQA Checklist, a project may cause a potentially significant impact if it 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; or
- 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; or
- Have a substantial adverse effect on state or federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means; or
- 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; or
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

### 5.4.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing Proponent's Environmental Assessments* (CPUC, 2019), the following additional CEQA impact question is required for biological resources. Would the project:

- Create a substantial collision or electrocution risk for birds or bats?

## 5.4.4 IMPACT ANALYSIS

### 5.4.4.1 Biological Resources Impact Analysis

**Would the project 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 Impact.** The Proposed Project would result in approximately 19 acres of permanent disturbance (10.8 acres of disturbed/developed land, 7.4 acres of orchards, less than 0.1 acre of hardwood woodland, and 0.8 acre of annual grassland) and approximately 251 acres of temporary disturbance (235.8 acres of disturbed/developed land, 6.2 acres of orchards, 3.5 acres of hardwood woodland, and 5.5 acres of annual grassland) as shown in **Table 5.4-3**, *Impacts by Vegetation Community* and **Figure 5.4-6**, *Biological Impact Area Map*.

**Table 5.4-3: Impacts by Vegetation Community**

| Vegetation Community of Land Cover Type Name | Total Acreage within Survey Area | Temporary Impact Acreage | Permanent Impact Acreage |
|---|---|---|---|
| Disturbed/Urban | 3,564.0 | 235.8 | 10.8 |
| Orchard | 14.0 | 6.2 | 7.4 |
| Hay Crops | 72.0 | 0.0 | 0.0 |
| Hardwood Woodland | 161.0 | 3.5 | <0.1 |
| Annual Grassland | 174.0 | 5.5 | 0.8 |
| Wetland | 1.0 | 0.0 | 0.0 |
| Open Water | 74.0 | 0.0 | 0.0 |
| **Total** | **4,060.0** | **251.0** | **19.0** |

Note: Totals in this table may not sum accurately due to rounding.

As described in **Applicant Proposed Measure (APM) BIO-1**, *Restoration of Disturbed Areas*, LS Power would restore all sensitive areas that are temporarily disturbed by the Proposed Project activities to approximate preconstruction conditions. Restoration could include recontouring, reseeding, and planting replacement vegetation, as appropriate. Temporarily disturbed areas would be revegetated with appropriate weed-free native seed mixes or species that are characteristic of the plant community that was disturbed. All areas would be carefully assessed to be sure all residual construction debris and waste is removed and transported off-site to an approved disposal facility. LS Power would conduct a final inspection to ensure that cleanup activities are successfully completed as required. Areas that are disturbed by grading, auguring, or equipment movement would be restored to their original contours and drainage patterns. Work areas would be recompacted, and salvaged topsoil materials would be respread following recontouring to aid in restoration of temporarily disturbed areas. Additionally, the Proposed Project would be required to develop and implement a Stormwater Pollution Prevention Plan (SWPPP) that would outline an approach for the use of erosion control measures, such as stormwater Best Management Practices (BMPs) and groundwater BMPs.

### Special-Status Plant Species

Direct impacts to special-status plant species and sensitive vegetation communities could include destruction of individual plants, and indirect impacts could include loss of areas that contain

suitable microhabitat conditions for special-status plants and introduction of non-native weed species that may out-compete these plants. **Table 5.4-3** lists the total area of temporary and permanent impact associated with implementation of the Proposed Project.

Three special-status plant species have the potential to occur within the Survey Area, but there is a low chance that they would occur within temporary or permanent impact areas. The only areas where special-status plants have a low potential to occur are along Coyote Creek in hardwood woodland and annual grassland habitats. Preconstruction surveys for rare plants would be conducted (February 1 through June 15) (**APM BIO-2**, *Rare Plant Surveys*), and any populations that are found would be avoided to the extent practicable (**APMs BIO-2**; **BIO-3**, *Preconstruction Sweeps*; and **BIO-4**, *Sensitive Area Demarcation*). Preconstruction sweeps would occur within disturbance areas (**APM BIO-3**); and vehicles would be cleaned prior to arriving on-site in sensitive natural areas (**APM BIO-5**, *Vehicle Cleaning Prior to Entering Natural Areas*), limiting the potential spread of noxious weeds within the Proposed Project area. Additionally, all areas that are temporarily disturbed would be restored to approximate preconstruction conditions (**APM BIO-1**). Therefore, with the implementation of APMs, direct and indirect impacts on special-status plant species and sensitive vegetation communities would be less than significant.

**Special-Status Wildlife Species**

Several special-status wildlife species were observed during habitat assessment and jurisdictional waters surveys: Bald eagle (BGEPA-protected, State-endangered), red-tailed hawk, turkey vulture, red-shouldered hawk (raptors; MBTA and CFGC protected), California gull, western grebe, California thrasher, Nuttall's woodpecker (BCC and MBTA protected), and western pond turtle (California Species of Special Concern).

The current level of disturbance and human activity associated with the City of San José is very high within a majority of the Proposed Project impact areas. The southeastern portion of the Proposed Project impact areas that are in the vicinity of Coyote Creek are the only areas that have a relatively low level of disturbance and contain native habitats. A small amount of direct impacts to special-status species, such as potential for mortality, destruction of nesting or breeding habitat, and loss of foraging habitat may occur primarily in association with construction in the vicinity of Coyote Creek and the Coyote Ranch Road and Coyote Creek Trail improvements. The temporary nature of the construction of the Proposed Project would only slightly increase the levels of disturbance and human activity that may indirectly impact wildlife species. The level of disturbance associated with long-term operation would be low due to the undergrounding of the transmission lines and the current level of disturbance in the area. Additionally, because a majority of the Proposed Project is expected to be constructed within existing disturbed roadways, and temporary work areas are also expected to be within previously disturbed habitats, new disturbance is expected to be minimal. There is a large amount of similar habitat in the vicinity of Coyote Creek so that the temporary and permanent loss of approximately 9.9 acres of potentially suitable habitat (5.5 acres of temporary and 0.8 acre of permanent impacts to annual grassland; and 3.5 acres of temporary and less than 0.1 acre of permanent impacts to hardwood woodland) for special-status wildlife species is less than significant.

***Hoary Bat, Silver-haired Bat, and other Bat Species***

Direct impacts to the special-status bat species could result from removal of vegetation that houses roosting sites during construction and vegetation clearing activities, collision risk from Proposed Project structures during construction and operation, and permanent loss of potentially suitable foraging habitat and potential roosting habitat for some species (some bats may use trees for roosting purposes). These potential direct impacts would be less than significant and avoided or further minimized by the implementation of **APMs BIO-1**; **BIO-3**; **BIO-6**, *Vehicle Speed Limits*; **BIO-7**, *Outdoor Lighting Measures*; and **BIO-8**, *Workers Environmental Awareness Program (WEAP) Training*, as further discussed below.

The permanent loss of approximately 0.9 acre of potentially suitable habitat for bat species is unavoidable (0.8 acre of permanent annual grassland and less than 0.1 acre of permanent hardwood woodland), but any temporary impact areas (5.5 acres of annual grassland and 3.5 acres of hardwood woodland) would be restored (**APM BIO-1**). The high quantity of similar habitat (urban habitats, hardwood woodland, and annual grassland) in the region would minimize the potential for impacts to special-status bats caused by this loss of habitat for foraging and roosting. Additionally, because a majority of the Proposed Project is expected to be constructed within existing disturbed roadways, and temporary work areas are also expected to be within previously disturbed habitats, the new disturbance is expected to be minimal. Preconstruction sweeps (14 to 30 days prior to construction) (**APM BIO-3**) would help to identify any trees or other vegetation that may be housing roosting sites for those bat species that may use trees in the Survey Area as roosting sites. Vegetation trimming would also be minimized (**APM BIO-9**, *Nesting Bird and Roosting Bats Protection Measures*). Night work would be avoided to the extent practicable and would likely only occur within commercial and industrial areas (**APM BIO-7**), and speed limits would be limited to 15 miles per hour (mph) (**APM BIO-6**), reducing the risk of vehicle strikes to a less-than-significant level. A WEAP training would be administered to all on-site construction workers that would educate them on the potential for direct impacts to bats, further reducing potential direct impacts (**APM BIO-8**). The existing urban development within the Proposed Project vicinity already creates collision risks for bat species, and the number of tall towers and other potential obstacles in the area would only be increased slightly by the construction of the Proposed Project (in association with the two proposed high-voltage direct current [HVDC] terminals). The risks of collision and electrocution with Proposed Project components associated with this increase would be minimized by using appropriate Avian Power Line Interaction Committee (APLIC) methods.

Indirect impacts to special-status bat species during construction could include decreased suitability of habitat in the vicinity of the Proposed Project caused by factors such as increased noise and light from construction activities, vehicles, and O&M activities, as well as increased human activity. Indirect impacts would be less than significant and would be avoided or further minimized by the implementation of **APMs BIO-1**, **BIO-7**, **BIO-8**, and **BIO-9**. Noise during construction activities is expected to be short-term in nature and minimal and would be even lower during operation. Night work would be avoided to the extent practicable and would likely only occur within commercial and industrial areas (**APM BIO-7**), which would help reduce the potential for noise and light pollution during construction and O&M activities that could negatively impact bat species. Terminal station lighting would be photocell and motion controlled to provide illumination for security. The proposed Grove terminal site is not anticipated to typically require nighttime illumination. A WEAP training would be administered to all on-site construction workers that would educate them on the potential for indirect impacts to bats and ways to reduce these impacts (**APM BIO-8**). Additionally, all temporary impacts would be restored per **APM BIO-1**,

helping minimize the impact of decreased suitability of habitat.

The above measures would help reduce any potential risk to bat species that have the potential to occur within the Survey Area.

***American Badger and San Joaquin Kit Fox***

Direct impacts to American badger and SJKF could result from potential vehicle strikes during construction and operation, destruction of burrows or dens during construction and vegetation clearing activities, entrapment in excavations, and temporary and permanent loss of approximately 23.5 acres of suitable hardwood woodland, annual grassland, and orchard habitats that could be used by these species. These potential direct impacts would be less than significant and avoided or further minimized by the implementation of **APMs BIO-1**; **BIO-3**; **BIO-4**; **BIO-6**; **BIO-8**; **BIO-10**, *SJKF Surveys*; and **BIO-11**, *Excavation Wildlife Safety BMPs*, as further discussed below.

The permanent loss of approximately 8.3 acres of potentially suitable foraging habitat is unavoidable, but a majority of the impacts would be limited to previously disturbed roadways and orchard areas, and any temporary impacts (approximately 15.2 acres) would be restored (**APM BIO-1**). The high quantity of similar habitat (hardwood woodland and annual grassland) in the region would help minimize the potential for impacts to American badgers and SJKF caused by this loss of habitat. Protocol surveys and preconstruction sweeps (**APMs BIO-3** and **BIO-10**) would help to identify any burrows that may be used for denning purposes. Protocol surveys can be conducted between May 1 and November 1. Burrow surveys can be conducted any time of the year, but also must be conducted between 14 and 30 days prior to construction.

If burrows or dens are identified, they would be clearly marked and avoided by construction activities (**APMs BIO-4** and **BIO-10**). If they cannot be avoided, USFWS and/or CDFW would be consulted. A qualified biological monitor would be present during all construction activities that could potentially impact special-status mammals (**APM BIO-10**). The number of vehicles during construction would be higher than during operation, but the number of vehicles associated with construction would not significantly increase the total number of public vehicles that move through these areas during any given time period. Throughout construction and operation, vehicles would stay on established roadways, and the speed limit would be 15 mph (**APM BIO-6**), minimizing the risk of vehicle strikes. In addition, the active construction area associated with the proposed Grove terminal would be fenced, as would the Proposed Project during operations, reducing the potential for vehicle strikes during construction and operation activities. American badgers and SJKF would likely avoid the construction area during construction activities due to the increased noise and activity, and **APM BIO-8** would educate workers on ways to avoid creating attractions for SJKF during construction (e.g., trash reduction measures). All trenches and holes that could create an entrapment hazard for SJKF and American badgers would be covered or have wildlife escape ramps installed (**APM BIO-11**) to minimize the potential for mortality due to entrapment.

Indirect impacts to American badgers and SJKF during construction could include decreased suitability of habitat in the vicinity of the Proposed Project caused by factors such as increased noise and light from construction activities, vehicles, and O&M activities, as well as increased human activity. Indirect impacts would be less than significant and would be avoided or further minimized by the implementation of **APMs BIO-5**, **BIO-7**, and **BIO-8**. Noise from construction activities can affect wildlife in multiple ways, such as depressing breeding success by acoustical masking and interfering with hunting activities. Construction activities could disrupt breeding and

foraging activities or cause badgers and foxes to vacate their dens, endangering young. Noise during construction activities in the vicinity of potentially suitable areas is expected to be short-term in nature and minimal and would be even lower during operation. Additionally, the area is already heavily populated and has a high background noise level to begin with. Night work and lighting would be minimized to the extent practicable (**APM BIO-7**), which would help minimize potential indirect impacts from SJKF and American badgers avoiding the area during construction and operation. A WEAP training would be administered to all workers that would educate them on the potential for indirect impacts to these mammals and ways to reduce these impacts (**APM BIO-8**). Additionally, all temporary impacts would be restored per **APM BIO-1**, helping minimize the impact of decreased suitability of habitat.

SJKF is a covered species under the Santa Clara Valley HCP; if impacts are identified during species-specific surveys, the take for this species would be covered either under the HCP or covered under a Federal or State Incidental Take Permit (ITP) in consultation with CDFW and USFWS.

***Bird Species***

Direct impacts to the special-status bird species (Swainson's hawk, tricolored blackbird, bald eagle, raptors, and any others with the potential to occur) could include potential vehicle strikes during construction and operation, removal of vegetation that houses nests during construction and vegetation clearing activities, collision and electrocution risk from Proposed Project structures during construction and operation, and temporary and permanent loss of approximately 9.9 acres of potentially suitable nesting habitat (hardwood woodland and annual grassland) and approximately 23.5 acres of potentially suitable foraging habitat (including the orchard area which could be used for foraging). Raptors may use trees within the Survey Area for nesting, and tricolored blackbirds may use marsh vegetation for nesting, all of which are captured in the hardwood woodland vegetation cover type. All of the bird species listed above may use the Survey Area for foraging purposes. Potential direct impacts would be less than significant and avoided or further minimized by the implementation of **APMs BIO-1**; **BIO-3**; **BIO-4**; **BIO-6**; **BIO-8**; **BIO-9**; **BIO-12**, *Special Status Bird Surveys*; and **BIO-13**, *Raptor Surveys*, as further discussed below. Protocol surveys for bald eagles require aerial surveys within two miles of impact areas between February 1 and May 15. Raptor surveys could be conducted concurrently. Tri-colored blackbird nesting surveys should be conducted between February 1 and June 15. Swainson's hawk protocol surveys should be conducted between March 20 and April 5 (one survey), between April 5 and April 20 (three surveys), and between June 10 and July 31 (one survey).

The permanent loss of approximately 8.3 acres of potentially suitable foraging habitat for all special-status bird species listed above and 0.9 acre of potentially suitable nesting habitat is unavoidable, but temporary impact areas would be restored (**APM BIO-1**). The high quantity of similar habitat (hardwood woodland, annual grassland, and agricultural areas) in the region would help minimize the potential for impacts to special-status bird species caused by this loss of these habitats. Additional similar tree nesting sites exist within these habitats. Focused surveys and preconstruction sweeps (**APMs BIO-3**; **BIO-12**; and **BIO-14**, *Nesting Bird Surveys*) would help to identify any trees or other vegetation that may be housing nests, and nests would be clearly marked with appropriate buffers and avoided by construction activities (**APMs BIO-4**, **BIO-9**, **BIO-12**, **BIO-13**, and **BIO-14**). A qualified biological monitor would be present during all construction activities that could potentially impact special-status birds (**APMs BIO-12** and **BIO-14**). During the migratory bird nesting or breeding season, certain activities would be avoided, and, if it is not feasible to avoid those activities, a nesting bird survey would be conducted in advance of those

activities (**APM BIO-9**). Additionally, the majority of the Proposed Project is expected to be constructed within existing disturbed roadways, and temporary work areas are also expected to be within previously disturbed habitats; thus, the new disturbance is expected to be minimal.

The number of vehicles during construction would be higher than during operation, but the existing background level of vehicles within the work area is already very high; therefore, the Proposed Project would not contribute significantly to this level. Throughout construction and operation, vehicles would stay on established roadways, and the speed limit would be 15 mph (**APM BIO-6**), minimizing the risk of vehicle strikes or crushing of ground-nesting bird nests. Bird species would likely temporarily avoid the work area during construction activities due to the increased noise and activity. The existing urban development within the Proposed Project vicinity already creates collision risks for bird species, and the number of tall towers and other potential obstacles in the area would only be increased slightly by the construction of the Proposed Project (in association with the two new terminals). The risks of collision and electrocution associated with this increase would be minimized by using appropriate APLIC methods. A WEAP would be administered to all workers and would include information to educate them on special-status bird species, nests, and appropriate buffers (**APM BIO-8**).

Indirect impacts to special-status bird species during construction and operation could include decreased suitability of habitat in the vicinity of the Proposed Project caused by factors such as increased noise from construction activities and vehicles, as well as increased human activity. Indirect impacts would be less than significant and would be avoided or further minimized by the implementation of **APMs BIO-5**, **BIO-7**, and **BIO-8**. Noise and light from construction activities can affect avian species in multiple ways, such as depressing breeding success by acoustical masking, interfering with intra-specific communication, and interfering with the detection of predators. Construction activities could disrupt breeding and foraging activities, prevent birds from tending to nests, or cause birds to flush from their nests, endangering eggs and chicks. Noise during construction activities is expected to be short-term in nature and minimal and not significantly differ from the high levels of noise disturbance already associated with the Proposed Project area. Night lighting would be motion detecting, which would help reduce potential light-related impacts to birds that may be active at night (**APM BIO-7**). A WEAP training would be administered to all workers that would educate them on the potential for indirect impacts to special-status birds and ways to reduce these impacts (**APM BIO-8**). Additionally, all temporary impacts would be restored per **APM BIO-1**, helping minimize the impact of decreased suitability of habitat.

The above measures would also help reduce any potential risk to other bird species that have a low potential to occur within the Survey Area to less than significant.

Tricolored blackbird is a covered species under the Santa Clara Valley HCP; if impacts are identified during species-specific surveys, the take for this species would be covered either under the HCP or covered under a State ITP in consultation with CDFW. If impacts are identified during species-specific surveys for the other State-listed bird species that are not covered under the Santa Clara Valley HCP (Swainson's hawk, bald eagle, and any other bird species that are identified), the take would be covered under a State ITP in consultation with CDFW.

***Monarch Butterfly, Crotch's Bumblebee, Bay Checkerspot Butterfly***

Direct impacts to the special-status invertebrate species (monarch butterfly, Crotch's bumblebee, and bay checkerspot butterfly) could include potential vehicle strikes or crushing during

construction and operation, removal of suitable flowering vegetation during construction and vegetation clearing activities, and permanent loss of approximately 8.3 acres of potentially suitable habitat (hardwood woodland, annual grassland, and orchard areas). Potential direct impacts would be low and avoided or further minimized by the implementation of **APMs BIO-1**, **BIO-3**, **BIO-4**, **BIO-6**, and **BIO-8**, as further discussed below.

The permanent loss of approximately 8.3 acres of potentially suitable habitat is unavoidable, but temporary impact areas would be restored (**APM BIO-1**). The high quantity of similar habitat (hardwood woodland, annual grassland, and agricultural areas) in the region would help minimize the potential for impacts to special-status invertebrate species caused by the loss of these habitats. Protocol surveys between April and August and preconstruction sweeps (**APMs BIO-3** and **BIO-15**, *Special-Status Invertebrate Surveys*) would help to identify any host plants, butterfly roosting sites, and bumblebee nests which would then be clearly marked for avoidance during construction activities, as necessary (**APMs BIO-4** and **BIO-15**). If these areas cannot be avoided, USFWS and/or CDFW would be consulted. A qualified biological monitor would be present during all construction activities that could potentially impact special-status invertebrates (**APM BIO-15**). Additionally, the majority of the Proposed Project is expected to be constructed within existing disturbed roadways, and temporary work areas are also expected to be within previously disturbed habitats; thus, the new disturbance is expected to be minimal. Throughout construction and operation, vehicles would stay on established roadways, and the speed limit would be 15 mph (**APM BIO-6**), minimizing the risk of vehicle strikes or crushing of suitable flowering plant species. A WEAP would be administered to all workers and would include information to educate them on special-status insect species and their preferred flowering plants (**APM BIO-8**).

Indirect impacts to special-status invertebrate species during construction and operation could include decreased suitability of habitat in the vicinity of the Proposed Project caused by factors such as increased noise from construction activities and vehicles, as well as increased human activity. A WEAP training would be administered to all workers that would educate them on the potential for indirect impacts to special-status insects and ways to reduce these impacts (**APM BIO-8**). Additionally, all temporary impacts would be restored per **APM BIO-1**, helping minimize the impact of decreased suitability of habitat. Indirect impacts would be less than significant and would be avoided or further minimized by the implementation of these APMs.

Bay checkerspot butterfly is a covered species under the Santa Clara Valley HCP; if impacts are identified during species-specific surveys, the take for this species would be covered either under the HCP or covered under a Federal ITP in consultation with USFWS. If impacts are identified during species-specific surveys for Monarch butterflies or Crotch's bumblebee which are not covered under the Santa Clara Valley HCP, the take would be covered under a Federal ITP (monarch butterfly; Federal candidate species) or State ITP (Crotch's bumblebee; State candidate species) in consultation with CDFW or USFWS.

***Steelhead***

Direct impacts to the steelhead are not expected because neither construction or operation of the Proposed Project would impact steelhead habitat (i.e., Coyote Creek). The Proposed Project would utilize an HDD to install the proposed Metcalf to Grove 500 kV transmission line under Coyote Creek where steelhead may be found.

Indirect impacts to steelhead during construction and operation could include decreased water quality and suitability of habitat in the vicinity of the Proposed Project caused by factors such as

spills/leaks into waterways, increased noise from construction activities, as well as increased human activity. A WEAP training would be administered to all workers (**APM BIO-8**) to educate them on steelhead and their potential for occurrence within Coyote Creek, the potential for direct impacts, and to ensure that no spills, leaks, or trash dumping occurs within Coyote Creek (or elsewhere), reducing the potential for water quality issues. Any sensitive areas for steelhead (including Coyote Creek) located within the vicinity of construction activities would be clearly marked and avoided to the extent practicable by construction activities (**APM BIO-4**). Once construction activities are completed, all temporary impact areas would be restored, helping to reduce impacts from construction activities in the vicinity of the waterway (**APM BIO-1**). HDD construction activities under Coyote Creek would be scheduled to occur during the dry season if feasible. HDD construction during dryer periods would minimize the potential for indirect impacts to Coyote Creek and steelhead, while allowing for potentially easier construction. Indirect impacts would be less than significant and would be avoided or further minimized by the implementation of these APMs.

Steelhead is not a covered species under the Santa Clara Valley HCP. Because no work is planned within steelhead habitat (i.e., Coyote Creek) no direct impacts would result from Proposed Project activities. Indirect impacts would be less than significant and would be avoided or further minimized with implementation of APMs.

***Amphibian and Reptile Species***

Direct impacts to the special-status amphibian and reptile species (CRLF, FYLF, WPT, CTS) could include potential vehicle strikes during construction and operation, removal of vegetation that could be used for breeding and cover during construction and vegetation clearing activities, and temporary and permanent loss of approximately 9.9 acres of potentially suitable upland dispersal habitat (hardwood woodland and annual grassland) and approximately 13.6 acres of less suitable upland dispersal habitat (the orchard area). The only areas with the potential for occurrence of these species are in the extreme southeastern portion of the Proposed Project work areas near Coyote Creek. Potential direct impacts would be less than significant and avoided or further minimized by the implementation of **APMs BIO-1**, **BIO-3**, **BIO-4**, **BIO-6**, **BIO-7**, **BIO-8**, and **BIO-16**, *Special Status Amphibian Surveys* as further discussed below. Protocol surveys for CRLF, FYLF, WPT and CTS should be conducted in March, April, and May. They should be conducted in potential breeding habitats within 0.6 mile of potential impact areas.

The permanent loss of approximately 0.9 acre of potentially suitable riparian and upland dispersal habitat and approximately 7.4 acres of less suitable upland dispersal habitat is unavoidable, but temporary impact areas would be restored (**APM BIO-1**). The high quantity of similar habitat (hardwood woodland, riparian areas, and annual grassland) in the region would help minimize the potential for impacts to special-status amphibian and reptile species caused by the loss of these habitats. Protocol or focused surveys and preconstruction sweeps (**APMs BIO-3** and **BIO-16**) would help to identify areas where these species may occur, and any sensitive areas for these species (such as wetlands and waterways) that are identified would be clearly marked and avoided to the extent practicable by construction activities (**APM BIO-4**). If these areas cannot be avoided, USFWS and/or CDFW would be consulted. A qualified biological monitor would be present during all construction activities that could potentially impact special-status amphibians and reptiles (**APM BIO-16**). Additionally, the majority of the Proposed Project is expected to be constructed within existing disturbed roadways, and temporary work areas are also expected to be within previously disturbed habitats; thus, the new disturbance is expected to be minimal.

The number of vehicles during construction would be higher than during operation, but the existing background level of vehicles within the work area is already very high; therefore, the Proposed Project would not contribute significantly to this level. Throughout construction and operation, vehicles would stay on established roadways and the speed limit would be 15 mph for unpaved roads (**APM BIO-6**), minimizing the risk of vehicle strikes or crushing nests and breeding sites. A WEAP would be administered to all workers and would include information to educate them on special-status reptile and amphibian species and refuge locations (**APM BIO-8**). Additionally, night work would be avoided to the extent practicable (**APM BIO-7**), which is when the amphibian species can be more active.

Indirect impacts to reptiles and amphibians during construction and operation could include decreased water quality and suitability of habitat and movement corridors in the vicinity of the Proposed Project caused by factors such as spills/leaks into waterways, increased noise from construction activities and increased human activity, and modification of the waterway. A WEAP training would be administered to all workers (**APM BIO-8**) to educate them on the potential for direct impacts and to ensure that no spills, leaks, or trash dumping occurs within Coyote Creek (or elsewhere), reducing the potential for water quality issues. Temporary impact areas in the vicinity of Coyote Creek would be restored following construction, further reducing the potential impacts to habitat suitability (**APM BIO-1**). Indirect impacts would be less than significant and would be avoided or further minimized by the implementation of these APMS.

FYLF, CRLF, WPT, and CTS are all covered species under the Santa Clara Valley HCP; if these species are confirmed to be present during species-specific surveys, the take for these species would be covered either under the HCP or covered under a Federal and State ITP in consultation with USFWS and CDFW.

**PG&E Facility Upgrades**

In order to integrate the proposed HVDC terminals and new Grove to Skyline 320 kV direct current (DC) transmission line into the existing transmission system, PG&E would be required to perform upgrades at two existing substations: modifications to the Metcalf substation and expansion of the San Jose B substation (refer to **Section 3.3.5**, *Other Potentially Required Facilities*). The PG&E facility upgrades would also include a new water line to the existing Metcalf substation, which would extend approximately 800 feet north-northeast from the Metcalf substation and connect to an existing 16-inch water main near the corner of Metcalf Road and Malech Road, which is served by the Great Oaks Water Company. The substation upgrades would occur within and adjacent to the existing substation facilities, and the new water line would occur within Metcalf Road and U.S. Route 101 ROWs, including an HDD under U.S. Route 101. The existing PG&E substations do not currently support candidate, sensitive or special-status species or habitats. The water line route is located within disturbed, developed, and annual grassland areas. While the required PG&E facility upgrade work would mainly occur in paved, disturbed, and developed areas only, some potential existing for indirect affects and impacts to migratory species, such as birds, which may nest within disturbed and developed areas. Therefore, PG&E would implement **Field Protocols (FPs) FP-1** through **FP-18** that are derived from the PG&E Bay Area O&M HCP as well as construction BMPs. The PG&E FPs include standard measures aimed at avoiding or minimizing potential adverse effects on biological resources, especially indirect effects as could occur during their scope of work. The FPs address potential biological resources impacts including nesting birds, wetlands and vernal pool impacts, revegetation of disturbed areas, indirect and nuisance impacts, and water quality. The full FPs are listed in **Section 5.4.7**, *PG&E Field Protocols and Best Management Practices*. In addition, PG&E would implement **BMPs BIO-1**,

*WEAP Training*; **BIO-2**, *Burrowing Owl*; and **BIO-3**, *Nesting Birds*. Therefore, impacts would be less than significant.

**Would the project 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 Impact.** USFWS-designated critical habitat for bay checkerspot butterfly could be directly impacted by the Proposed Project in the vicinity of Tulare Hill Ecological Preserve along Monterey Road, where a mapped section of designated critical habitat extends into Monterey Road that would be impacted by the Proposed Project. This may be a mapping error since this area is not suitable habitat for bay checkerspot butterfly. This area would be directly impacted, but the impacts would be less than significant in this area since it is within a previously disturbed road.

NMFS-designated critical habitat for steelhead (i.e., Coyote Creek) would be crossed by the proposed Metcalf to Grove 500 kV transmission line. However, the critical habitat would not be impacted by construction of the proposed Metcalf to Grove 500 kV transmission line because it would be installed under the creek via an HDD. The HDD pits would be set-up outside of the limits of Coyote Creek, including the areas of critical habitat. HDD construction would occur during dry periods for Coyote Creek, if feasible.

No other designated or proposed critical habitats would be impacted by the Proposed Project. Therefore, direct and indirect impacts on designated critical habitat areas would be less than significant.

**PG&E Facility Upgrades**

The PG&E upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. The proposed facility upgrades and water line do not currently support riparian habitat or other sensitive vegetation communities. Therefore, no impact would occur.

**Would the project have a substantial adverse effect on state or federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

**No Impact.** There are four mapped streams/waterways that cross the path of the Proposed Project alignment(s); however, no impacts to these areas or other jurisdictional waters or wetlands would occur. The first is a perpendicular crossing of the inactive Coyote Alamitos Canal that is located within the proposed Grove to Skyline 320 kV DC transmission line Survey Area just north of Metcalf Road. The second is Fisher Creek, a tributary of Coyote Creek, which crosses Monterey Road just north of the existing Metcalf Energy Center within the proposed Grove to Skyline 320 kV DC transmission line alignment. The third is Coyote Canal that crosses under Coyote Ranch Road before draining into Coyote Creek, located along the proposed Metcalf to Grove 500 kV transmission line. While these three locations are mapped as streams/canals, the proposed construction is entirely within the paved roadway that currently bisects these features via existing culverts. Construction of the proposed Grove to Skyline 320 kV DC transmission line and Metcalf to Grove 500 kV transmission line would use horizontal boring (jack-and-bore) or HDD trenchless

techniques under these culverts if conventional trenching over or under the culverts is not feasible. The final stream crossing is located at the southern portion of the Proposed Project alignment just south of Coyote Creek for the construction of the proposed Metcalf to Grove 500 kV transmission line (**Figure 5.4-4**). The construction of this crossing would occur via an HDD under the creek. As the transmission line would be fully undergrounded through this section, no impacts to the jurisdictional waterway are expected. All HDD operations would be monitored by HDD operators to ensure that if unanticipated impacts, such as frac-out, do result in impacts, HDD operations would be halted or redirected.

The proposed HVDC terminal locations do not have any aquatic or jurisdictional waters on-site, and they would be built to drain stormwater to an on-site detention system. Stormwater would react as it normally does along a majority of the proposed transmission line alignments and would be drained into roadside drains. Stormwater runoff during construction and O&M activities would be managed according to a stormwater management plan and BMPs established in the associated SWPPP. No impacts would occur.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. No aquatic or jurisdictional features are located within the proposed PG&E facility upgrades or new water line; therefore, no impacts would occur.

**Would the project 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 Impact.** Significant impacts on wildlife movement could occur if a wildlife movement corridor were to be interrupted by a feature that physically blocks wildlife movement (e.g., a roadway) or if suitable habitat that supports wildlife in the movement corridor were to be directly removed during construction or indirectly affected by construction noise or dust.

A large portion of the Proposed Project is located within the City of San José where there are no large wildlife movement corridors, but the southeastern portion of the Proposed Project is located within Coyote Valley, a known wildlife movement corridor between the Santa Cruz Mountains and the Diablo Range (Santa Clara Valley Open Space Authority and Conservation Biology Institute, 2017). East-west movement within this area occurs primarily through culverts and bridge underpasses and along the Coyote Creek riparian corridor, though animals may also attempt to move across or under Monterey Road. Direct impacts to wildlife movement could include creating barriers to wildlife movement.

The Proposed Project would mostly be constructed along and within the existing Monterey Road ROW and other existing road ROWs and would not create any additional barriers to movement along the road. These areas would not result in barriers to movement and would only potentially impact wildlife movement for a short period during construction activities.

The proposed Grove terminal site would be located in an existing orchard that is currently fenced. This existing perimeter fence acts as a barrier to movement of wildlife species. While the proposed Grove terminal would include perimeter security walls, the footprint of the new perimeter walls (approximately 6.3 acres) is smaller than the footprint of the existing perimeter fencing

surrounding the current orchard (approximately 13.6 acres). Therefore, while the terminal security walls would restrict wildlife movement through the terminal, it would allow for wildlife movement around the terminal, within the boundaries of the larger 13.6-acre terminal property. Because existing fencing already restricts the movement of wildlife species through the site, wildlife movement conditions would at best improve slightly, and at worst remain unchanged. Additionally, the relatively small impact area would not have a large effect on overall wildlife movement through the area, as wildlife movement would not be impaired around the proposed Grove terminal facility and site.

Speed limits within construction areas would be kept to 15 mph, and workers would be advised to take care when commuting to and from the site, reducing the potential for vehicle strikes to moving wildlife (**APM BIO-6**). Vehicles would also be kept to disturbance areas only, and sensitive areas (such as the Coyote Creek riparian corridor) would be clearly marked and avoided, reducing potential impacts to suitable movement habitats for wildlife (**APMs BIO-6** and **BIO-4**). Night work and nighttime lighting would be reduced to the extent practicable (**APM BIO-7**), which would reduce potential impacts to wildlife movement which tends to be higher at night. Vegetation removal would be kept to a minimum (**APM BIO-9**), and all temporary impact areas would be restored (**APM BIO-1**), keeping habitats intact for wildlife movement in the area.

The goals and principles that are laid out in the Coyote Valley Landscape Linkage report (Santa Clara Valley Open Space Authority and Conservation Biology Institute, 2017) would all be aligned with the construction of the Proposed Project, except for the construction of the proposed Grove terminal. As previously stated, this is a relatively small area, and the existing land use is already a barrier to wildlife movement within Coyote Valley. Therefore, impacts would be less than significant.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. As perimeter walls and existing development is currently located around the existing substation facilities, the proposed upgrades would not result in new restrictions to wildlife movement. The proposed new water line would be constructed underground and, therefore, would also not result in new restrictions to wildlife movement. No impact would result.

**Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

**No Impact.** The CPUC has exclusive jurisdiction over its siting, design, and construction, and the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. However, local regulations relating to biological resources were reviewed to ensure that the Proposed Project would not be in conflict with local policies or ordinances protecting biological resources. The City of San José General Plan and County of Santa Clara General Plan (City of San José, 2023; County of Santa Clara, 1994) were reviewed, and the Proposed Project is being designed in a way that complies with these local policies, where applicable. Implementation of the Proposed Project would not conflict with local policies or ordinances relating to biological resources. Therefore, no impacts would occur.

**PG&E Facility Upgrades**

The PG&E facility upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. The proposed upgrades and proposed water line would not conflict with local policies or ordinances relating to biological resources. Therefore, no impacts would occur.

**Would the project 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 Impact.** The Proposed Project lies within the PG&E's Bay Area O&M HCP (PG&E, 2017) for the Bay Area and the Santa Clara Valley HCP (County of Santa Clara et al., 2012).

The 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 nine counties of the San Francisco Bay Area while avoiding, minimizing, and mitigating for temporary and permanent impacts on threatened- and endangered-species habitat that could result from PG&E's ongoing O&M activities (PG&E, 2017). LS Power is not a stakeholder of PG&E's Bay Area O&M HCP, and the activities proposed are not covered activities under this HCP.

The Santa Clara Valley HCP provides a framework for promoting the protection and recovery of natural resources, including endangered species, while streamlining the permitting process for planned development, infrastructure, and maintenance activities (County of Santa Clara et al., 2012). The Santa Clara Valley HCP covers public and private utility activities within the planning limits of urban growth (as defined by the HCP) such as those that are associated with the Proposed Project. A majority of the Proposed Project occurs within the planning limits of urban growth and may be covered activities. The Santa Clara Valley HCP covers many of the same species that were analyzed within this Proponent's Environmental Assessment: the Tiburon paintbrush, Santa Clara Valley dudleya, Metcalf Canyon jewelflower, bay checkerspot butterfly, CRLF, FYLF, WPT, CTS, burrowing owl, tricolored blackbird, and SJKF. If impacts are identified to these species, LS Power would coordinate with the stakeholders of the Santa Clara Valley HCP to obtain coverage for the Proposed Project as required. In the event that LS Power is unable to opt into coverage from the Santa Clara HCP, LS Power would consult with the wildlife agencies to obtain project-specific permits. The Proposed Project's APMs generally align with the measures that are proposed to reduce impacts to these species in the HCPs, so no conflicts with approved HCPs would occur. Impacts would be less than significant.

**PG&E Facility Upgrades**

The PG&E upgrades would occur within and adjacent to the existing substation facilities, in areas that are disturbed, paved, or currently developed. PG&E could utilize their Bay Area O&M HCP to address potential impacts to species covered under their HCP. However, there are no sensitive resources within these existing facilities or within the proposed new water line where upgrades or expansions of the facilities would occur, and utilization of the HCP is not anticipated to be required. PG&E would implement **FPs 1** through **18** as well as construction **BMPs BIO-1** through **BIO-3**. The PG&E FPs are derived directly from the Bay Area O&M HCP, and the BMPs are consistent with the PG&E HCP documents. Therefore, no impacts related to conflicts with approved HCPs

would result.

**Would the project create a substantial collision or electrocution risk for birds or bats?**

**Less-Than-Significant Impact.** Direct impacts to bird and bat species could include collision and electrocution associated with the proposed HVDC terminal facilities. Impacts would be less than significant because the proposed Grove to Skyline 320 kV DC transmission line and the proposed Metcalf to Grove 500 kV transmission line would be constructed underground. Bird species would likely temporarily avoid the work areas during construction activities due to the increased noise and activity. The existing urban development within the Proposed Project vicinity already creates collision risks for bird species, and the number of tall towers and other potential obstacles in the area would only be increased slightly by the construction of the Proposed Project (in association with the two new HVDC terminals). The risks of collision and electrocution associated with this slight increase would be minimized by using appropriate APLIC methods. A WEAP would be administered to all workers and would include information to educate them on special-status bird species, nests, and appropriate buffers (**APM BIO-8**). Therefore, impacts would be less than significant.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. The risks of collision and electrocution associated with the proposed substation upgrades would be minimized by using appropriate APLIC methods. In addition, PG&E would implement **FP-18** and **BMP BIO-3**, which would address potential impacts to nesting birds. Finally, **FP-1** and **BMP BIO-1** would ensure that all PG&E construction workers receive WEAP and HCP training. Therefore, impacts would be less than significant.

### 5.4.5 CPUC DRAFT ENVIRONMENTAL MEASURES

There are no CPUC Draft Environmental Measures suggested for biological resources.

### 5.4.6 APPLICANT PROPOSED MEASURES

The following biological resources-specific APMs would be implemented on the Proposed Project.

**APM BIO-1: Restoration of Disturbed Areas**

Areas that are temporarily disturbed by the Proposed Project activities shall be restored to approximate preconstruction conditions. Areas that are disturbed by grading, augering, or equipment movement shall be restored to their original contours and drainage patterns. Work areas shall be de-compacted, and salvaged topsoil materials shall be respread following recontouring to aid in restoration of temporarily disturbed areas. Revegetation activities shall be conducted in accordance with the Proposed Project SWPPP and APMs. Restoration could include recontouring, reseeding, and planting replacement vegetation, as appropriate. Temporarily disturbed areas shall be revegetated with appropriate weed-free native seed mixes or species that are characteristic of the plant community that was disturbed.

**APM BIO-2: Rare Plant Surveys**

Protocol surveys and preconstruction surveys shall be conducted within all Proposed Project impact areas, and suitable buffers shall be established within suitable habitat areas for special-status plants. In the event of the discovery of a special-status plant, the area shall be marked as a sensitive area and shall be avoided to the extent practicable. If avoidance is not possible, LS Power shall consult with the USFWS and/or CDFW for ITPs. Preconstruction surveys shall be conducted within Proposed Project impact areas 14 to 30 days prior to the start of construction for any rare plants that are identified during the focused surveys. Construction activities that may impact rare plants, including movement of construction equipment and other activities outside of the fenced/paved areas within suitable habitat, shall be monitored by a qualified biologist. Upon the discovery of sensitive plants, the qualified biologist shall have the authority to stop work activities and, following the identification and implementation of steps required to avoid or minimize impacts to sensitive plants, direct construction work to commence once more.

**APM BIO-3: Preconstruction Sweeps**

Prior to initial vegetation clearance and ground-disturbing activities, a qualified biologist shall conduct preconstruction survey sweeps of the Proposed Project work area for special-status wildlife and plants in areas that contain potentially suitable habitats. In the event of the discovery of a special-status plant, the area shall be marked as a sensitive area and shall be avoided to the extent practicable. If avoidance is not possible, LS Power shall seek coverage from the Santa Clara Valley HCP, or shall consult with the USFWS and/or CDFW for ITPs. Any other construction activities that may impact sensitive biological resources, including movement of construction equipment and other activities outside of the fenced/paved areas within wildlife habitat, shall be monitored by a qualified biologist. The qualified biologist shall have the authority to stop work activities upon the discovery of sensitive biological resources and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to sensitive resources.

**APM BIO-4: Sensitive Area Demarcation**

All sensitive biological areas (including creeks, wetlands, and special-status species habitats) within the Proposed Project work area shall be clearly marked prior to construction commencement to restrict construction activities and equipment from entering these areas. These markings shall be inspected regularly to ensure that they remain in place.

**APM BIO-5: Vehicle Cleaning Prior to Entering Natural Areas**

Vehicles and equipment shall be cleaned prior to use in native habitat on the Proposed Project areas to avoid the spread of noxious weeds and non-native invasive plant species.

**APM BIO-6: Vehicle Speed Limits**

Speed of vehicles driving along proposed access roads and on the Proposed 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 Proposed Project site that are public roadways which shall be limited to posted speed limits. In addition, construction and maintenance employees shall be required to stay on established and clearly marked and existing roads, except when not feasible due to physical or safety constraints and shall be advised that care should be exercised when

commuting to and from the Proposed Project area to reduce accidents and animal road mortality.

**APM BIO-7: Outdoor Lighting Measures**

The use of outdoor lighting during construction and O&M shall be minimized whenever practicable. Photocell and motion detection-controlled lighting shall be provided at a level sufficient to provide safe entry and exit to the Proposed Project terminals and control enclosures and for security purposes. All lighting shall be selectively placed, shielded, and directed downward to the extent practicable. Night work shall be avoided as practicable; however, given the large amount of construction proposed within existing roads, local municipalities may dictate that transmission line construction occurs at nighttime within certain areas of the Proposed Project. The most likely areas for nighttime construction are within commercial and industrial areas and not residential or potentially sensitive biological areas.

**APM BIO-8: WEAP Training**

A WEAP shall be implemented to educate all on-site construction workers on site-specific biological and non-biological resources and proper work practices to avoid harming wildlife during construction activities. This WEAP shall include measures to reduce trash buildup during construction.

**APM BIO-9: Nesting Birds and Roosting Bats Protection**

If feasible, LS Power shall avoid certain construction activities such as vegetation trimming/removal during the migratory bird nesting and breeding and roosting bat seasons. When it is not feasible to avoid construction during these seasons , LS Power shall perform a nesting bird and roosting bat survey in the area where the work is to occur. This survey shall be performed to determine the presence or absence of nesting birds and roosting bats. If roosting bats or active nests (i.e., containing eggs or young) are identified, a suitable construction buffer shall be implemented to ensure that the nesting or breeding activities are not substantially adversely affected. If the nesting or breeding activities are being conducted by a Federal- or State-listed species, LS Power shall consult with the USFWS and CDFW, as necessary. A qualified biologist shall monitor the nest until the birds have fledged or construction is no longer occurring on the site.

**APM BIO-10: SJKF Surveys**

Protocol surveys and preconstruction survey sweeps shall be conducted within all proposed impact areas and suitable buffers within suitable habitat areas for San Joaquin kit fox (SJKF). In the event of the discovery of occupied burrows and/or SJKF individuals, the area and a suitable buffer shall be marked as a sensitive area and shall be avoided to the extent practicable. If avoidance is not possible, USFWS and/or CDFW shall be consulted. Any other construction activities that may impact SJKF, including movement of construction equipment and other activities outside of the fenced/paved areas within suitable habitat, would be monitored by a qualified biologist. The qualified biologist shall have the authority to stop work activities upon the discovery of suitable burrows or live individuals and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to SJKF.

**APM BIO-11: Excavation Wildlife Safety BMPs**

Excavated holes/trenches that are not within areas that have wildlife exclusion fencing or that are not filled at the end of a workday shall be covered, or a wildlife escape ramp shall be installed, to prevent the inadvertent entrapment of wildlife species.

**APM BIO-12: Special-Status Bird Surveys**

Protocol surveys shall be conducted for Swainson's hawk and bald eagle; focused surveys shall be conducted for tricolored blackbird and other raptors; and preconstruction survey sweeps shall be conducted within all proposed impact areas and suitable buffers within suitable habitat areas for Swainson's hawk, tricolored blackbird, bald eagle, burrowing owl, and other raptors. In the event of the discovery of suitable habitats, nests, or live individuals, the area and a suitable buffer shall be marked as a sensitive area and shall be avoided to the extent practicable. If avoidance is not possible, USFWS and/or CDFW would be consulted. Tricolored blackbird is a covered species under the Santa Clara Valley HCP; if impacts are identified during species-specific surveys, the take for this species shall be covered either under the HCP or covered under a State ITP in consultation with CDFW. If impacts are identified during species-specific surveys for the other State-listed bird species that are not covered under the Santa Clara Valley HCP (Swainson's hawk, bald eagle, and any other bird species that are identified), the take shall be covered under a State ITP in consultation with CDFW. Any other construction activities that may impact special-status birds, including movement of construction equipment and other activities outside of the fenced/paved areas within suitable habitat, shall be monitored by a qualified biologist. Additionally, qualified biologists shall monitor all active nests to ensure that construction activities are not disturbing the nest. The monitor/inspector shall have the authority to stop work activities upon the discovery of nests or live individuals and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to sensitive birds.

**APM BIO-13: Raptor Surveys**

If a raptor nest is observed within 500 feet of the Proposed 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 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 Proposed Project are disturbing or disrupting nesting or breeding activities, the monitor shall make recommendations to reduce noise or disturbance in the vicinity of the nest. If the nest is determined to be inactive, the nest shall be removed under direct supervision of the qualified biologist.

**APM BIO-14: Nesting Bird Surveys**

Preconstruction nest surveys shall be conducted within all proposed impact areas and suitable buffers within suitable habitat areas for MBTA-protected birds. In the event of the discovery of an active nest, the area and a suitable buffer shall be marked as a sensitive area and shall be avoided to the extent practicable. If avoidance is not possible, USFWS and/or CDFW shall be consulted. Any other construction activities that may impact nesting birds, including movement of construction equipment and other activities outside of the fenced/paved areas within suitable habitat, shall be monitored by a qualified biologist. Additionally, biologists shall monitor all active nests to ensure that construction activities are not disturbing the nest. The monitor/inspector shall have the authority to stop work activities upon the discovery of nests or live individuals and allow

construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to nesting birds.

**APM BIO-15: Special-Status Invertebrate Surveys**

Protocol surveys and preconstruction surveys shall be conducted within all proposed impact areas and suitable buffers within potentially suitable habitat areas for bay checkerspot butterfly, monarch butterfly, and Crotch's bumblebee. In the event of the discovery of suitable habitat, host plants, or individuals of these special-status invertebrates, the area shall be marked as a sensitive area and shall be avoided to the extent practicable. Bay checkerspot butterfly is a covered species under the Santa Clara Valley HCP. If avoidance of the bay checkerspot butterfly is not possible, the take for this species shall be covered either under the Santa Clara Valley HCP or under a Federal ITP in consultation with the USFWS. If impacts are identified during species-specific surveys for Monarch butterflies or Crotch's bumblebee which are not covered under the Santa Clara Valley HCP, the take shall be covered under a Federal ITP (monarch butterfly; Federal candidate species) or State ITP (Crotch's bumblebee; State candidate species) in consultation with CDFW or USFWS. Any other construction activities that may impact special-status invertebrates or their habitats, including movement of construction equipment and other activities outside of the fenced/paved areas within suitable habitat, shall be monitored by a qualified biologist. The qualified biologist shall have the authority to stop work activities upon the discovery of individuals or host plants and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to sensitive invertebrates.

**APM BIO-16: Special-Status Amphibian Surveys**

Protocol surveys shall be conducted for California tiger salamander and California red-legged frog; focused surveys shall be conducted for foothill yellow-legged frog; and preconstruction surveys shall be conducted within all proposed impact areas and suitable buffers within suitable habitat areas for California tiger salamander, California red-legged frog, and foothill yellow-legged frog. In the event of the discovery of suitable habitats or live individuals, the area and a suitable buffer shall be marked as a sensitive area and shall be avoided to the extent practicable. If avoidance is not possible, USFWS and/or CDFW shall be consulted. Any other construction activities that may impact special-status amphibians, including movement of construction equipment and other activities outside of the fenced/paved areas within suitable habitat, shall be monitored by a qualified biologist. The qualified biologist shall have the authority to stop work activities upon the discovery of live individuals and allow construction to proceed after the identification and implementation of steps required to avoid or minimize impacts to sensitive amphibians.

### 5.4.7 PG&E FIELD PROTOCOLS AND BEST MANAGEMENT PRACTICES

The following biological resource FPs and BMPs would be implemented by PG&E for the activities to be completed by PG&E and/or their contractors. The FPs are derived directly from PG&E's Bay Area HCP, and the FPs and BMPs are consistent with the Bay Area O&M HCP.

**FP-1:** Hold annual training on habitat conservation plan 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, and trees, small mammal burrows, and unique natural features (e.g., rock outcrops).

**FP-5:** Notify conservation land owner at least 2 business days prior to conducting covered activities on protected lands (state and federally owned wildlife areas, ecological reserves, or conservation areas); more notice will 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 will notify the conservation land owner within 48 hours after initiating emergency work. While this notification is intended only to inform conservation land owner, PG&E will attempt to work with the conservation land owner to address landowner concerns.

**FP-6:** Minimize potential for covered species to seek refuge or shelter in pipes and culverts. Inspect pipes and culverts, of 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 will not exceed 15 miles per hour.

**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, 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 will search open trenches or steep-walled holes every morning prior to initiating daily activities to ensure wildlife are not trapped. If any wildlife are found, a biologist will be notified and will relocate the species to adjacent habitat or the species will 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 will 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 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 will 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 will be avoided: contact a biologist, land planner or the Avian Protection Program manager for further guidance.

**BMP BIO-1: Worker Environmental Awareness Training.** A qualified biologist will develop an environmental awareness training program that is specific to the project. All on-site construction personnel will attend the training before they begin work on the project. Training will include a discussion of the construction management practices that are being implemented to protect biological resources as well as the terms and conditions of any project permits.

**BMP BIO-2: Burrowing Owl.** A survey for evidence of burrowing owl (sign or presence) should be conducted prior to initial ground-disturbance. The survey can occur within the best detection timeframe and within two weeks of construction. If burrowing owl are detected, consult with the California Department of Fish and Wildlife.

**BMP BIO-3: Nesting Birds.** If work is anticipated to occur within the nesting bird season (February–August), nesting birds, including raptors and other species protected under the Migratory Bird Treaty Act, may be impacted. If active nests are discovered, exclusionary measures and/or designated avoidance buffers may be required and implemented according to the guidance in the PG&E Nesting Bird Management Plan. The project biologist determines if the construction action will impact the nest, and if so, identifies whether alternative actions or monitoring can be implemented to avoid impacts. If active nests are observed during construction, crews must immediately alert the PG&E project biologist.

## 5.5 CULTURAL RESOURCES

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Cause a substantial adverse change in the significance of a historical resources pursuant to §15064.5? | | | X | |
| b. | Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | | | X | |
| c. | Disturb any human remains, including those interred outside of dedicated cemeteries? | | | X | |

This section describes the cultural resources within the Proposed Project area, as well as potential impacts resulting from construction and operation and maintenance (O&M) of the Proposed Project.

### 5.5.1 ENVIRONMENTAL SETTING

The Proposed Project is located in the City of San José and unincorporated County of Santa Clara, primarily along the Monterey Road corridor. It includes the construction of two new high-voltage direct current (HVDC) terminals and associated transmission lines between two existing Pacific Gas and Electric Company (PG&E) substations: San Jose B substation and Metcalf substation. The land surrounding the Proposed Project area is dense urban in the north; light industrial, commercial, and suburban residential in the center; and rural and agricultural in the south.

#### Proposed Project Area

The Proposed Project area covers approximately 270.1 acres, including 5.1 acres for the proposed Skyline terminal site, 7.4 acres for the proposed Grove terminal site, 187.3 acres for the proposed transmission lines, 5.5 acres for the existing PG&E substation upgrades, 63.3 acres of combined temporary staging areas, 1.0 acres for the realignment of Coyote Creek Trail and Coyote Creek Road, and approximately 0.5 acre for the PG&E water line connection. Refer to **Section 3.0**, *Proposed Project Description* for further information regarding the Proposed Project's limits of disturbance, including depth of excavation and heights of structures.

#### 5.5.1.1 Cultural Resource Reports

The Cultural Resources Technical Report (Mengers, 2024) is included in **Appendix 5.5-A**, *Cultural Resources Technical Report*. The confidential version of this appendix was submitted separately to California Public Utilities Commission (CPUC) staff under Public Utilities Code Section 583.

### 5.5.1.2 Cultural Resources Summary

Information on the character and location of cultural resources in the Proposed Project area and local vicinity was requested by PanGIS, Inc. and compiled from background and archival research at the California Historical Resources Information System (CHRIS) through the Northwest Information Center (NWIC). The Native American Heritage Commission (NAHC) and interested Native American individuals also were contacted. The research and Native American outreach were supplemented by an intensive survey of the Proposed Project area. The information was then used to evaluate the Proposed Project against the California Environmental Quality Act (CEQA) Appendix G Environmental Checklist significance criteria to determine potential impacts.

Background research included a record search review, historic map review, Sacred Lands File (SLF) search, and Native American Tribal outreach (see **Section 5.18**, *Tribal Cultural Resources*). The record search identified 18 previously recorded resources that intersect with the Proposed Project area, including two listed resources and one resource determined eligible for listing. The SLF search was positive for resources within the search area. Responses to outreach were received from the Tamien Nation, the Ohlone Indian Tribe, and the Amah Mutsun Tribal Band, who each provided information about Tribal resources in the Proposed Project area.

The surface survey was conducted by PanGIS on September 12 through 14, and November 8, 2023; and February 24, and March 27 through 28, 2024. One previously recorded cultural resource was expanded and updated during the surface survey; no new archaeological or Tribal cultural resources (TCRs) were located during the surface survey. The majority of the survey area is pavement, asphalt, and landscaped sidewalks in a developed urban environment with good ground visibility.

#### Records Search and Historical Research

A record search was conducted to determine if any cultural resources listed or potentially eligible for listing on the National Register of Historic Places (NRHP) or California Register of Historic Resources (CRHR) were present within or immediately adjacent to the Proposed Project area. The record search request was submitted by PanGIS to the NWIC on May 16, 2023, and was fulfilled on June 22, 2023. Materials consulted by the NWIC included prehistoric and historic archaeological resources and report databases, NRHP, CRHR, California Historical Landmark, California Point of Historical Interest (CPHI), California Inventory of Historic Resources, Archaeological Determinations of Eligibility, the California Office of Historic Preservation (OHP) Built Environment Resources Directory, and the California Department of Transportation ("Caltrans") Bridge Survey. The record search area included a one-mile buffer of the Proposed Project area.

The NWIC record search identified eight studies conducted within the past ten years that intersect the Proposed Project area and had a field component (pedestrian survey, archaeological monitoring, or data recovery), covering approximately 76.47 acres (28.3 percent) (not including overlapping acreages associated with these study areas) of the Proposed Project area (**Table 5.5-1**, *Previous Cultural Resource Studies within the Last 10 Years Intersecting the Proposed Project Area*). An additional 176 studies were identified that intersect the Proposed Project area that either did not have a field component or were older than 10 years, and a further 886 studies

were identified outside of the Proposed Project area but within the one-mile search buffer (**Appendix 5.5-A**).

**Table 5.5-1: Previous Cultural Resource Studies within the Last 10 Years Intersecting the Proposed Project Area**

| Report Number | Year | Author (Company) | Report Title | Acreage in Proposed Project |
|---|---|---|---|---|
| S-045408 | 2014 | Laurie, Leroy (URS Corporation) | Cultural Resources Constraint Report; Metcalf-Morgan Hill 230 kilovolt (kV) Structures 000/001 and 000/002 | 1.09 |
| S-045655 | 2014 | Scher, Naomi (Far Western) | Cultural Resources Study for the Metcalf Security Enhancement Project, Santa Clara County, California | 67.16 |
| S-045670 | 2014 | Sikes, Nancy (Cogstone/URS) | Archaeological Survey Report, US 101 Express Lanes Project, Santa Clara County, California | 2.73 |
| S-046205 | 2015 | Harris, Benjamin, and Helen Blackmore (Caltrans) | Historic Property Survey Report, Resurface and Repair Project, 04-SCL-101 PM 16.00-27.90 | 3.87 |
| S-047098 | 2015 | Psota, Sunshine (Holman & Associates) | Historic Property Survey Report Capitol Expressway Improvement Project, Santa Clara County, California CML 5937 (196) | 0.77 |
| S-049632 | 2016 | Cartier, Robert (Archaeological Resource Management) | Archaeological Auger Testing Program for the North San Pedro Studios Project in the City of San José | 0.07 |
| S-051695 | 2018 | Nayyar, Margo (Michael Baker) | Potential Commercial Historic District in San José, Reconnaissance Level Survey and Recommendations | 4.56 |
| S-054136 | 2019 | Nayyar, Margo (Michael Baker) | North First Street Local Transit Village Reconnaissance Level Survey and Evaluation Recommendations | 0.04 |

The NWIC record search identified 18 previously recorded resources that intersect with the Proposed Project area (**Table 5.5-2**, *Previously Recorded Cultural Resources Identified*). Of these, four are prehistoric, one is multi-component, and 13 are historic era. Of the four prehistoric resources, one is a village site with human remains, one is a single burial, one is a lithic scatter, and one is isolated faunal remains. The multi-component site includes a prehistoric cemetery

below historic era refuse deposits. Of the 13 historic era resources, six are buildings, two are built environment or landscape, one is a refuse deposit, and four are isolates. Of the six buildings, five were destroyed since recording.

**Table 5.5-2: Previously Recorded Cultural Resources Identified**

| Resource | Description | Proposed Project Component | Status | Comments |
|---|---|---|---|---|
| P-43-000189 (SCL-000178) | Prehistoric village site with human remains | PG&E Metcalf water line | Determined Eligible (NRHP D) | Data recovery |
| P-43-000571 (SCL-000576) | Lithic scatter and fire-cracked rock | PG&E Metcalf substation, Staging Area 2 | Recommended Not Eligible (NRHP and CRHR; Scher, 2014) | Data recovery |
| P-43-001116 | San Jose B substation | PG&E San Jose B substation | Recommended Not Eligible 1998 | -- |
| P-43-001279 (SCL-000846/H) | Historic deposits and prehistoric cemetery | Grove to Skyline 320 kV Transmission Line (Bassett Street) | Undetermined | Data recovery |
| P-43-001307 | 281 Delmas Avenue | Staging Area 9 | Not evaluated | Destroyed; DPR update |
| P-43-001330 | 255 Delmas Avenue | Staging Area 9 | Not evaluated | Destroyed; DPR update |
| P-43-001331 | Primera Baptist Church | Staging Area 9 | Determined Eligible (FTA, 1999) | Destroyed; DPR update |
| P-43-001334 | 201-203 Delmas Avenue | Staging Area 9 | Not evaluated | Destroyed; DPR update |
| P-43-001450 | Faunal remains | Grove to Skyline 320 kV Transmission Line (Market Street) | Not evaluated | Isolate |
| P-43-001451 | Historic bottle | Grove to Skyline 320 kV Transmission Line (Market Street) | Not evaluated | Isolate |
| P-43-001452 | Historic deposit | Grove to Skyline 320 kV Transmission Line (Market Street) | Not evaluated | Destroyed |

| Table 5.5-2: Previously Recorded Cultural Resources Identified | | | | |
|---|---|---|---|---|
| **Resource** | **Description** | **Proposed Project Component** | **Status** | **Comments** |
| P-43-001453 | Trolley remains | Grove to Skyline 320 kV Transmission Line (Market Street) | Not evaluated | Isolate |
| P-43-001454 | Historic ceramic | Grove to Skyline 320 kV Transmission Line (Market Street) | Not evaluated | Isolate |
| P-43-002628 | El Camino Real/Juan Bautista de Anza Historic Trail | Grove to Skyline 320 kV Transmission Line (Monterey Road) | Listed (Local); Recommended Not Eligible NR/CR | City of San José |
| P-43-002629 | Keesling's Shade Trees | Grove to Skyline 320 kV Transmission Line (Monterey Road) | Listed CHPI (SCL-056); Determined Not Eligible NR 2005 | -- |
| P-43-003535 (SCL-000948) | Prehistoric human remains | Grove to Skyline 320 kV Transmission Line (South Market Street) | Undetermined | Recovered |
| P-43-003568 | Historic bottle | Grove to Skyline 320 kV Transmission Line (South Market Street) | Not evaluated | Isolate |
| P-43-004139 | 217 W Julian Street | Grove to Skyline 320 kV Transmission Line (Terraine Street) | Recommended Not Eligible 1982 | Destroyed; DPR update |

Acronyms:
DPR = Department of Parks and Recreation
NR = National Register
CR = California Register
CHL = California Historical Landmark
CHPI = California Historical Points of Interest

Two of the above resources are listed on historic registers: P-43-002629 (Keesling's Shade Trees) is listed on the CPHI (SCL-056) and P-43-002628 (El Camino Real/Juan Bautista de Anza Historic Trail) is listed by the City of San José. One resource, P-43-000189 (prehistoric village site with human remains), was determined eligible for listing on the NRHP and CRHR and qualifies as a unique archaeological resource per PRC Section 21083.2 (remaining data value and oldest of its type in the region). One resource, P-43-001331 (Primera Baptist Church), was determined eligible for listing on the NRHP but has since been destroyed. Two resources with prehistoric human remains, P-43-001279 and P-43-003535, have been subjected to burial recovery, but their

evaluation status is undetermined. Three resources (P-43-000571, P-43-001116, and P-43-004139) have been evaluated and recommended not eligible for listing. Three resources (P-43-001307, P-43-001330, and P-43-001334) have not been evaluated but have been destroyed since recording. One resource (P-43-001452) was destroyed during recording. The remaining five resources (P-43-001450, P-43-001451, P-43-001453, P-43-001454, and P-43-003568) are isolated occurrences that do not qualify as historic resources per CEQA Guidelines. The record search identified an additional 1,184 previously recorded resources outside of the Proposed Project area but within the one-mile search buffer, including 79 previously recorded resources within approximately 100 feet of the Proposed Project area.

In summary, the record search identified eight historical resources (pursuant to Section 15064.5) in the Proposed Project area, including two within PG&E's facilities upgrade areas. Of the eight, two are listed on historic registers, one has been determined eligible for listing and is a unique archaeological resource, two have been subjected to data recovery but no agency determination is on record, and three have been recommended not eligible for listing but with no agency determination on record. Ten additional resources were identified that do not qualify as historic resources pursuant to Section 15064.5, including five buildings that have been destroyed and five archaeological isolates.

PanGIS consulted historical maps and documents of the record search area, including original survey plats and land patents (BLM, 2023); historical topographic maps (United States Geological Survey [USGS] 1:250,000 San Jose 1947, 1956, 1962, and 1966; USGS 1:125,000 San Jose 1978; 1:62,500 San Jose 1889, 1897, 1899, 1953, and 1961, New Almaden 1916 and 1919, Los Gatos 1919, 1940, and 1943, and Morgan Hill 1917 and 1939; and USGS 1:24,000 San Jose West 1953, 1961, 1968, 1973, and 1980, San Jose East 1953, 1961, 1968, 1973, and 1980, Santa Teresa Hills 1953, 1968, and 1980, and Morgan Hill 1955, 1968, 1973, and 1980) (USGS 2023); and aerial photographs (1948, 1953, 1956, 1960, 1968, and 1980) (NETROnline, 2023).

A review of historic maps and aerials agrees with the development history presented above regarding this portion of the County of Santa Clara. The Proposed Project area is shown on the original survey plat maps of 1867, 1880, 1882, and 1891. Between 1867 and 1891, the Proposed Project areas were part of the Pueblo Lands of San José, Rancho San Juan Bautista, and Rancho Santa Teresa. Topographic and aerial maps from the 1880s through 1968 covering the area depict developed roads, industrial buildings, and shipping stations in and around the northern part of the Proposed Project area from the College Park district in east San José starting with the existing San Jose B substation component and ending south towards Staging Area 1, where large tracts of the area were developed along the Southern Pacific Railroad (SPRR) and Monterey Road. The San José branch of the SPRR runs westbound in proximity to the Proposed Project's Staging Area 12,160 meters southeast of the existing San Jose B substation, 60 meters northwest of Staging Area 11, 165 meters northeast of the proposed Metcalf to Grove 500 kV transmission line limits of construction, 135 meters northeast of Staging Area 2, and parallel to the proposed Grove to Skyline 320 kV transmission line limits of construction as well as the precursor to Monterey Road. Between 1916 and 1968, the City of San José residential and industrial areas gradually developed along Monterey Road with increased automobile use. The Guadalupe River is shown 105 meters west of the Proposed Project's Staging Area 12 and 40 meters west of the existing San Jose B substation. Very little change occurs within the Proposed Project areas near Coyote Creek and near the Guadalupe River between 1917 and 1939. West San Carlos Street, to the south of the Proposed Project's Staging Area 10, is expanded and further developed with residential and industrial areas between 1948 and 1953. In 1956, a large storage facility was

constructed 55 meters northeast of the Proposed Project's Staging Area 9, and a factory was constructed 60 meters northeast of Staging Area 8. Between 1899 and 1948 the SPRR was diverted 1.1 kilometers southwest from the Proposed Project's Staging Area 6. Staging Area 6 is within the Santa Clara Fairgrounds, which appears in 1953. Staging Area 6 is also 120 meters east of a cemetery, which, in the 1950s, is marked as the Oak Hill Memorial Park Cemetery. On the 1948 and 1956 maps, Staging Area 5 is in proximity to a mining quarry. By 1961, further residential and industrial development occurs in and around the Proposed Project area heading northeast. By the early 1950s, a substation is shown 515 meters southeast of the Proposed Project's Staging Area 2 and 150 meters north of the proposed Metcalf to Grove 500 kV transmission line limits of construction. By 1968, the substation expands to encompass both Staging Area 2 and the proposed Metcalf to Grove 500 kV transmission line limits of construction. From 1968 on, no further development occurred in the area until 1998 when the Guadalupe Freeway was constructed in proximity to the proposed Staging Area 11, Staging Area 12, and the existing San Jose B substation components.

**Cultural Resource Survey**

A cultural resource pedestrian survey of the Proposed Project components was conducted on September 12 through 14, and November 8, 2023, and February 24, and March 27 through 28, 2024, by PanGIS staff archaeologists under the direction of PanGIS Director of Cultural Resources, Douglas Mengers. The cultural resource survey area is described below in **Section 5.5.1.3**, *Cultural Resource Survey Boundaries* and shown in **Figure 5.5-1**, *Cultural Resources Map*.

The survey plan entailed five-to-ten meter-wide transects depending on ground visibility and accessibility. Previously unrecorded resources encountered would be recorded on digital State of California DPR 523 resource forms, and their locations would be recorded using a handheld device running Environmental System Research Institute (ESRI) Field Maps software. Pen and paper field logs served as a backup. Photographs were taken with a 12-megapixel digital camera. No cultural materials were collected during the surface survey. Photographs and field notes are held by PanGIS.

The majority of the transmission line limits of construction currently consists of pavement, asphalt, and landscaped sidewalks in a developed urban environment. Survey areas are flat; ground visibility varied from zero percent in paved areas to 10 to 100 percent in road shoulders, depending on ground cover. The proposed Skyline terminal site contained grasses and weeds up to hip-height, some non-native trees, and modern refuse such as spare rail ties and metal fragments staged in various piles. The Santa Clara Valley Water District and Santa Clara County Parks parcels contain the active Coyote Creek with a public bike/hiking path that runs north-south throughout. Survey areas are flat; ground visibility was variable depending on vegetation. Natural areas surrounding Coyote Creek contained California buckeye, California lilacs, toyon, coffeeberry, Pacific madrone, western redbud, California blackberry, California grape, valley oaks, coast live oaks, and other chaparral vegetation. The proposed Grove terminal site is a heavily utilized agricultural property containing fruit orchards, irrigation systems, and spare material, tractors, and other equipment storage. The survey area is flat, and the soil has been extensively tilled. Ground visibility ranged from zero percent in heavily vegetated areas to 90 percent in between rows of fruit trees.

One previously recorded cultural resource, P-43-000189, was expanded and updated during the surface survey; no new archaeological resources or TCRs were located during the surface survey. Detailed survey methods and results are described in the *Cultural Resources Technical Report for the Power Santa Clara Valley Project, Santa Clara County, California* (Mengers, 2024), which is included as **Appendix 5.5-A**.

The majority of the Proposed Project area, especially the northern extent, is highly developed, but unrecorded subsurface resources are likely to be present within the Proposed Project area. A discussion of prehistoric, ethnohistoric, and historic era resource types common to the region is included in the Methods section of **Appendix 5.5-A**. Unanticipated resources may be discovered during ground-disturbing activities, which would then need to be evaluated in order to assess Proposed Project impacts.

#### 5.5.1.3 Cultural Resource Survey Boundaries

The cultural resource survey area was confined to those portions of the Proposed Project area where access was available. This included the proposed Skyline terminal site and associated Staging Area 12 (10.3 acres), the proposed Grove terminal site and associated Staging Area 1 (13.7 acres), the proposed transmission line alignments (187.3 acres), the PG&E Metcalf substation water line (0.5 acre), the Coyote Creek Trail and Coyote Ranch Road realignment areas (1.0 acre), and the proposed improvement area associated with the existing PG&E Metcalf substation (5.5 acres), for a total of 218.3 acres. A visual survey of additional components was conducted from the public right-of way where pedestrian access was not available, including the existing San Jose B substation and Staging Areas 2 through 11. The existing PG&E San Jose B substation and the temporary staging areas would be surveyed prior to construction. See **Figure 5.5-1**.

### 5.5.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project. Section 106 of the National Historic Preservation Act (NHPA) does not apply to the Proposed Project because no federal agency discretionary action is required, and no federal lands or monies are involved.

#### 5.5.2.1 Cultural Resources Regulatory Setting

**Federal**

There are no applicable federal regulations for cultural resources that apply to the Proposed Project.

**State**

***California Health and Safety Code and Public Resources Code***

Broad provisions for the protection of Native American cultural resources are contained in the California Health and Safety Code, Division 7, Part 2, Chapter 5 (Sections 8010 through 8030). Several provisions of the Public Resources Code (PRC) also govern archaeological finds of human remains and associated objects. Procedures are detailed under PRC Section 5097.98

through 5097.996 for actions to be taken whenever Native American remains are discovered. Furthermore, Section 7050.5 of the California Health and Safety Code states that any person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor, except as provided in PRC Section 5097.99. Any person removing human remains without authority of law or written permission of the person or persons having the right to control the remains under PRC Section 7100 has committed a public offense that is punishable by imprisonment.

PRC Chapter 1.7, Section 5097.5/5097.9 (Stats. 1965, c. 1136, p. 2792), entitled Archaeological, Paleontological, and Historical Sites, defines any unauthorized disturbance or removal of a fossil site or remains on public land as a misdemeanor. A person shall not 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, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands.

Section 21074 of the PRC states that "tribal cultural resources" are:

(1) sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a Tribe that are listed, or determined to be eligible for listing, in the national or state register of historical resources, or listed in a local register of historic resources; or

(2) resources that the lead agency determines, in its discretion, are Tribal cultural resources.

Any lead agency determination that a resource should be treated as a TCR must be made using the criteria set forth in subdivision (c) of § 5024.1 of the historical register.

The agency must also consider the significance of the resource to a California Native American Tribe (PRC §§ 5024.1, 21074). California Native American Tribes traditionally and culturally affiliated with the geographic area of a project may have expertise concerning their TCRs (PRC § 21080.3.1). Courts will defer to a lead agency's factual determination that a resource is a TCR if that decision is supported by substantial evidence in the record. Evidence that may support such a finding could include elder testimony, oral history, Tribal government archival information, testimony of a qualified archaeologist certified by the relevant Tribe, testimony of an expert certified by the Tribal government, official Tribal government declarations or resolutions, formal statements from a certified Tribal Historic Preservation Officer, or historical/anthropological records.

Regarding mitigation, public agencies must, when feasible, avoid damaging effects to any TCR (PRC § 21084.3 (a)). Appropriate mitigation for a TCR is different than mitigation for archeological resources. If the lead agency determines that a project may cause a substantial adverse change to a TCR, mitigation measures should be identified through consultation with the Tribal government. If measures are not otherwise identified in the consultation process, the PRC describes mitigation measures that may avoid or minimize the significant adverse impacts (PRC § 21084.3 (b)). Examples include:

(1) Avoidance and preservation of the resources in place, including planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

(2) Treating the resource with culturally appropriate dignity, taking into account the Tribal cultural values and meaning of the resource, including the following:

   A) Protecting the cultural character and integrity of the resource;
   B) Protecting the traditional use of the resource; or
   C) Protecting the confidentiality of the resource.

(3) Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

(4) Protecting the resource.

### *Assembly Bill 52*

Assembly Bill (AB) 52 established that TCRs must be considered under CEQA and also provided for additional Native American consultation requirements for the lead agency. A TCR is a site, feature, place, cultural landscape, sacred place, or object that is considered of cultural value to a California Native American Tribe. A TCR is either:

- On the CRHR or a local historic register;
- Eligible for the CRHR or a local historic register; or
- The lead agency determines that the resource meets the register criteria.

A project that has potential to impact a TCR such that it would cause a substantial adverse change constitutes a significant effect on the environment unless mitigation reduces such effects to a less-than-significant level. On July 30, 2016, the California Natural Resources Agency adopted the final text for TCRs update to Appendix G of the CEQA Guidelines, which was approved by the Office of Administrative Law on September 27, 2016. AB 52 amended California PRC Section 5097.94, and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3.

PRC Section 21080.3.1 requires that within 14 days of a lead agency determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact or a Tribal representative of California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the project (as defined in PRC Section 21073) and who have requested in writing to be informed by the lead agency (PRC Section 21080.3.1(b)). Tribes interested in consultation must respond in writing within 30 days from receipt of the lead agency's formal notification, and the lead agency must begin consultation within 30 days of receiving the Tribe's request for consultation (PRC Sections 21080.3.1(d) and 21080.3.1(e)).

PRC Section 21080.3.2(a) identifies the following as potential consultation discussion topics: the type of environmental review necessary; the significance of TCRs; the significance of the project's

impacts on the TCRs; project alternatives or appropriate measures for preservation; and mitigation measures. Consultation is considered concluded when either: (1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a TCR; or (2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached (PRC Section 21080.3.2(b)).

If a California Native American Tribe has requested consultation pursuant to Section 21080.3.1 and has failed to provide comments to the lead agency, or otherwise failed to engage in the consultation process, or if the lead agency has complied with Section 21080.3.1(d) and the California Native American Tribe has failed to request consultation within 30 days, the lead agency may certify an Environmental Impact Report (EIR) or adopt a Mitigated Negative Declaration (MND) (PRC Section 21082.3(d)(2) and (3)).

PRC Section 21082.3(c)(1) states that any information, including, but not limited to, the location, description, and use of the TCRs, that is submitted by a California Native American Tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public without the prior consent of the Tribe that provided the information. If the lead agency publishes any information submitted by a California Native American Tribe during the consultation or environmental review process, that information shall be published in a confidential appendix to the environmental document unless the Tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public.

Confidentiality does not, however, apply to data or information that are, or become, publicly available, are already in lawful possession of the project applicant before the provision of the information by the California Native American Tribe, are independently developed by the project applicant or the project applicant's agents, or are lawfully obtained by the project applicant from a third party that is not the lead agency, a California Native American Tribe, or another public agency (PRC Section 21082.3(c)(2)(B).

**Local**

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, "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 the City of San José and the County of Santa Clara does not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section includes a summary of local cultural resources-related policies, plans, or programs for informational purposes. Although LS Power Grid California, LLC ("LS Power") is not subject to local discretionary permitting, ministerial permits would be secured as appropriate.

### *County of Santa Clara General Plan*

The County of Santa Clara General Plan is a comprehensive long-range general plan for the physical development of the County of Santa Clara (County of Santa Clara, 1994). The various elements within the General Plan include strategies and policies for the physical development of the County. The following policies related to cultural resources have been provided for informational purposes only:

**Policy 5.1** Protection and preservation of heritage resources both natural (e.g., heritage trees; and paleontological resources) and cultural (e.g., historic sites and structures, and archaeological sites). Cultural heritage resources reflecting the contributions to society of all cultures acknowledged, preserved and commemorated.

**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, historic and place values.

**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.

### *County of Santa Clara Historic Preservation Ordinance*

On October 17, 2006, the Board of Supervisors adopted the Historic Preservation Ordinance, enacting Division C17 of the Santa Clara County Ordinance Code. Basic components of the ordinance include purpose and intent, definitions, heritage resource inventory, landmark designation criteria and process, and landmark alteration requirements and demolition procedures, as well as information on appeals, hardship determination, maintenance, and enforcement. The Board of Supervisors updated the Historic Preservation Ordinance on December 1, 2009, to clarify the owner consent process for landmark designation.

### *City of San José General Plan*

The City of San José General Plan sets forth a vision and a comprehensive road map to guide the City's continued growth through the year 2040 (City of San José, 2024). The various elements of the San José General Plan have been combined into a consistent and meaningful plan and organized in a manner designed to meet public needs. The following policies and goals related to cultural resources have been provided for informational purposes only:

**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.

**Goal ER-10** Preserve and conserve archaeological significant structures, sites, districts and artifacts in order to promote a greater sense of historic awareness and community identity.

**Policy ER-10.1** For purposed development sites that have been identified as archaeologically or paleontologically sensitive, require investigation during the planning process in order to determine whether potentially significant archaeological 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-10.2** Recognizing that Native American human remains may be encountered at unexpected locations, impose a requirement on all development permits and tentative subdivision maps that upon their discovery during construction, development activity will cease until professional archaeological examination confirms whether the burial is human. If the remains are determined to be Native American, applicable state laws shall be enforced.

**Policy ER-10.3** Ensure that City, State, and Federal historic preservation laws, regulations, and codes are enforced, including laws related to archaeological and paleontological resources, to ensure the adequate protection of historic and pre-historic resources.

**Goal LU-13** Preserve and enhance historic landmarks and districts in order to promote a greater sense of historic awareness and community identity and contribute toward a sense of place.

**Policy LU-13.12** Develop and encourage public/public and public/private partnerships as a means to support, expand, and promote historic preservation.

**Policy LU-13.15** Implement City, State, and Federal historic preservation laws, regulations, and codes to ensure the adequate protection of historic resources.

**Policy LU-13.16** Alert property owners, land developers, and the building industry to historic preservation goals and policies and their implications early in the development process.

**Goal IP-10** Use the Site Development permit process to implement the Environ General Plan goals and policies.

**Policy IP-10.3** In addition to a Site Development permit, require an Historic Preservation permit for modifications to a designated Historic Landmark structure. This permit process fosters the implementation of Historic Preservation goals and policies of the Envision General Plan.

No City of San José Standard Conditions of Approval related to cultural resources were available for review.

### *City of San José Historic Preservation*

The Council of the City of San José adopted the Historic Preservation Ordinance (Section 13.48 of the City's Municipal Code) to promote a harmonious outward appearance of structures in the historic styles and a general harmony as to style, form, color, proportion, texture, and material between buildings of historic design and those of more modern design; that such purpose is advanced through the preservation and protection of the old historic or architecturally worthy structures and neighborhoods which impart a distinct aspect to the City of San José and which

serve as visible reminders of the historical and cultural heritage of the City of San José. Basic components of the ordinance include purpose, definitions, historic landmark commission, historic resource inventory, historic preservation officer, procedures for designation of a landmark, procedures for designation of historic districts, notice of amendment or rescission of designation, historic preservation permits, historic property contracts, and conservation areas.

### 5.5.3 IMPACT QUESTIONS

#### 5.5.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to cultural resources come from the CEQA Appendix G, Environmental Checklist. According to the CEQA Environmental Checklist, a project may cause a potentially significant impact if it would:

- Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5; or
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5; or
- Disturb any human remains, including those interred outside of dedicated cemeteries.

#### 5.5.3.2 Additional CEQA Impact Questions

Pursuant to CPUC's *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing Proponent's Environmental Assessments* (2019), there are no additional CEQA Impact Questions required for cultural resources.

### 5.5.4 IMPACT ANALYSIS

#### 5.5.4.1 Cultural Resources Impact Analysis

**Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?**

**Less-Than-Significant Impact.** There are two known historical resources, as defined in Section 15064.5, located within the Proposed Project area. P-43-002628, a non-material travel route, is part of the National Historic Trail network and is listed as California Landmark #784. P-43-002629 is listed as California Registered Point of Historical Interest #SCL-056. There are no additional recorded historical resources within the Proposed Project area. However, unrecorded historical resources may exist within or adjacent to the Proposed Project area. While unanticipated, the Proposed Project would involve activities that have the potential to encounter historical resources that are eligible for listing in the CRHR or in a local register. Should previously unidentified historical resources be encountered during construction, the following **Applicant Proposed Measures (APMs)** would reduce impacts to less than significant by ensuring that all Proposed Project construction personnel can recognize historical resources, avoid known resources, and appropriately respond to unanticipated discoveries. **APM CUL-1**, *Worker Environmental Awareness Program (WEAP) Training* requires the development and implementation of a Worker Environmental Awareness Program; **APM CUL-2**, *Archaeological and Native American*

*Monitoring* requires archaeological monitoring to assist in identification and evaluation of potential historical resources, and **APM CUL-3**, *Unanticipated Discovery of Potentially Significant Prehistoric and Historic Resources* specifies the procedures needed to occur if a previously unidentified historical resource is uncovered during implementation of the Proposed Project. **APM CUL-4**, *Cultural Resources Inventory* would require a cultural survey prior to construction at the temporary construction staging areas, which would reduce impacts to less than significant by ensuring that any newly identified historical resources are either avoided by project redesign or evaluated and treated.

**PG&E Facility Upgrades**

In order to integrate the proposed HVDC terminals and new Grove to Skyline 320 kV direct current (DC) transmission line into the existing transmission system, PG&E would be required to perform upgrades at two existing substations: modifications to the Metcalf substation and expansion of the San Jose B substation (refer to **Section 3.3.5**, *Other Potentially Required Facilities*). These substation upgrades would occur within and adjacent to the existing substation facilities. The PG&E facility upgrades would also include a new water line to the existing Metcalf substation, which would extend approximately 800 feet north-northeast from the Metcalf substation and connect to an existing 16-inch water main near the corner of Metcalf Road and Malech Road, which is served by the Great Oaks Water Company. Construction on these upgrades would occur concurrently with construction of the remainder of the Proposed Project and for a similarly limited duration. There is one known historical resource, as defined in Section 15064.5, located within the PG&E facility upgrade area. P-43-001116 (PG&E's San Jose B substation), was evaluated and recommended not eligible for listing on the NRHP or CRHR, though no agency determination is on record with the CHRIS. Similar to the Proposed Project, upgrades to the existing substations would involve earthmoving activities that may have the potential to encounter historic resources that are eligible for listing in the CRHR or in a local register. Implementation of PG&E **Best Management Practices (BMPs) CULT-1**, *Worker Awareness Training*; **CULT-2,** *Worker Awareness Training*; **Cult-3**, *Inadvertent Discovery*; **Cult-4**, *Flag and Avoid Known Resources*; and **CULT-5**, *Human Remains* would reduce potential impacts by ensuring that all Proposed Project personnel can recognize historical resources; avoid known historic resources; appropriately respond to unanticipated discoveries of any newly identified historic resources; and ensure that appropriate personnel are present and appropriate procedures are followed. Therefore, impacts to historic resources would be less than significant.

**Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?**

**Less-Than-Significant Impact.** There is one known archaeological resource located within the Proposed Project area. P-43-000571 was evaluated and recommended not eligible for listing on the NRHP and CRHR, though no agency determination is on record with the CHRIS. There are no additional recorded archaeological resources within the Proposed Project area. However, unrecorded archaeological resources may exist within or adjacent to the Proposed Project area. While unanticipated, the Proposed Project would involve earthmoving activities that have the potential to uncover unrecorded subsurface archaeological resources that are eligible for listing in the CRHR or in a local register. Should previously unidentified archaeological resources be encountered during construction, the following APMs would reduce impacts to less than significant by ensuring that all Proposed Project construction personnel can recognize archaeological resources, avoid known resources, and appropriately respond to unanticipated

discoveries. **APM CUL-1** requires the development and implementation of a WEAP; **APM CUL-2** requires archaeological monitoring to assist in identification and evaluation of potential archaeological resources; and **APM CUL-3** specifies the procedures needed to occur if a previously unidentified archaeological resource is uncovered during implementation of the Proposed Project. **APM CUL-4** would require a cultural survey prior to construction at the temporary construction staging areas, which would reduce impacts to less than significant by ensuring that any newly identified archaeological resources are either avoided by project redesign or evaluated and treated.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. There are no known archaeological resources, as defined in Section 15064.5, located within the PG&E facility upgrade areas. Similar to the Proposed Project, upgrades to the existing substations would involve earthmoving activities that may have the potential to encounter archaeological resources that are eligible for listing in the CRHR or in a local register. Implementation of PG&E **BMPs CULT-1** through **CULT-4** would reduce potential impacts by ensuring that all Proposed Project personnel can recognize archaeological resources; avoid known archaeological resources; appropriately respond to unanticipated discoveries of any newly identified archaeological resources; and ensure that appropriate personnel are present and appropriate procedures are followed. Therefore, impacts to archaeological resources would be less than significant.

### 5.5.4.2 Human Remains

**Would the project disturb any human remains, including those interred outside of dedicated cemeteries?**

**Less-Than-Significant Impact.** There are two known resources associated with human remains located within the Proposed Project area. P-43-001279 is a multi-component archaeological site. The prehistoric component, located 95 meters outside the Proposed Project area, was subjected to data recovery associated with human remains, while the historic component, which intersects the Proposed Project area, was regarded as ineligible for listing and destroyed during data recovery. No agency determination for this site is on record with the CHRIS. P-43-003535 is a single prehistoric burial that was completely recovered; no agency determination for this site is on record with the CHRIS. However, based on the unknown nature of the sacred sites reported to exist in the area, unrecorded human remains may be present within the Proposed Project area. If encountered, **APMs CUL-1**, **CUL-2**, **CUL-3**, and **CUL-5**, *Unanticipated Discovery of Human Remains* would be implemented to ensure that impacts to human remains are reduced to less than significant by ensuring that all Proposed Project personnel can recognize human remains, avoid known human remains, appropriately respond to unanticipated discoveries of any newly identified human remains, and that appropriate personnel are present and appropriate procedures are followed.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. There is one known resource associated with human remains located within the PG&E facility upgrade area. P-43-000189 is a prehistoric village site with human remains that was determined eligible for listing on the NRHP and CRHR (1978) and qualifies as a unique archaeological resource per PRC Section 21083.2 (remaining data value and oldest of its type in the region). It was subjected to data recovery and reburial, and the site was expanded and updated during the survey for the Proposed Project. Similar to the Proposed Project, upgrades to the existing substations would involve earthmoving activities that may have the potential to encounter resources associated with human remains that are eligible for listing in the CRHR or in a local register. Implementation of PG&E **BMPs CULT-1** through **CULT-5** would reduce potential impacts by ensuring that all Proposed Project personnel can recognize human remains; avoid known human remains; appropriately respond to unanticipated discoveries of any newly identified human remains; and ensure that appropriate personnel are present and appropriate procedures are followed. Therefore, impacts to resources associated with human remains would be less than significant.

#### 5.5.4.3 Resource Avoidance

LS Power will implement **APMs CUL-1** through **CUL-5**; and PG&E will implement **BMPs CULT-1** through **CULT-5**, as described in **Sections 5.5.6** and **5.5.7** below, to avoid impacts to known resources.

### 5.5.5 CPUC Draft Environmental Measures

The CPUC recommends a Draft Environmental Measure for cultural resources associated with the discovery of human remains. The recommended Draft Environmental Measure has been included in **Section 5.5.6**, *Applicant Proposed Measures* as **APM CUL-5**.

### 5.5.6 Applicant Proposed Measures

The following cultural resource-specific APMs would be implemented on the Proposed Project.

**APM CUL-1: WEAP Training**

LS Power shall obtain a qualified archaeologist to design the cultural resources component of a Worker Environmental Awareness Program (WEAP) that shall be provided to all Proposed Project personnel who may encounter and/or alter historical resources or unique archaeological properties, including construction supervisors and field personnel. The WEAP shall be submitted to the CPUC prior to construction. No construction worker shall be involved in ground-disturbing activities without having participated in the WEAP. The WEAP shall include, at a minimum:

- Training on how to identify potential cultural resources and human remains during the construction process;
- A review of applicable local, state, and federal ordinances, laws, and regulations pertaining to historic preservation;

- A discussion of procedures to be followed in the event that unanticipated cultural resources are discovered during implementation of the Proposed Project;
- A discussion of disciplinary and other actions that could be taken against persons violating historic preservation laws and LS Power policies; and
- A statement by the construction company or applicable employer agreeing to abide by the WEAP, LS Power policies, and other applicable laws and regulations.

The WEAP may be conducted in concert with other environmental or safety awareness and education programs for the Proposed Project, provided that the program elements pertaining to cultural resources are designed by a qualified archaeologist, which is defined as an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology (36 CFR Part 61).

**APM CUL-2: Archaeological and Native American Monitoring**

Archaeological and Native American monitoring shall be conducted during ground disturbance associated with the Proposed Project when within 100 feet (30 meters) of previously recorded prehistoric, ethnohistoric resources or after unanticipated discovery of same. Archaeological monitoring shall be conducted during ground disturbance associated with the Proposed Project when within 100 feet (30 meters) of previously recorded historic-period resources, or after unanticipated discovery of the same. Prehistoric and/or ethnohistoric archaeological sites have been recorded within the Proposed Project area, and the SLF search and Tribal outreach indicates that lands sacred to the Muwekma Ohlone Indian Tribe of the San Francisco Bay Area, the Ohlone Indian Tribe, the Tamien Nation, and the Amah Mutsun Tribal Band are present within the Proposed Project search area. In addition, historic era archaeological sites have been recorded within the Proposed Project area. A qualified archaeologist shall be retained by LSP to monitor excavation in each work area for the Proposed Project in accordance with the above monitoring criteria to ensure that there is no impact to any significant unanticipated historical resource. A qualified archaeologist and a Native American monitor determined during Tribal consultation shall be retained by LS Power to monitor excavation in each work area for the Proposed Project in accordance with the above monitoring criteria to ensure that there is no impact to any significant unanticipated cultural resource. Procedures to be followed in the event that a Native American monitor is not available shall be determined during Tribal consultation. Native American monitoring requirements established in this APM may be superseded by government-to-government consultation conducted between the CPUC and Tribal organizations as part of the AB 52 process or otherwise.

**APM CUL-3: Unanticipated Discovery of Potentially Significant Prehistoric and Historic Resources**

In the event that previously unidentified cultural resources are uncovered during implementation of the Proposed Project, all work within 100 feet (30 meters) of the discovery shall be halted and redirected to another location. LS Power'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 DPR cultural resource records, and no further effort shall be required. If the resource cannot be avoided and may be subject to further impact, LS Power's qualified archaeologist shall evaluate the significance and 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, LS Power's qualified archaeologist, in consultation with the CPUC and, if the unearthed resource is prehistoric or Native American in nature, the Native American monitor shall develop additional treatment measures, such as data recovery consistent with CEQA Guidelines 15126.4(b)(3)(C)-(D). Archaeological materials recovered during any investigation shall be curated at an accredited curation facility or transferred to the appropriate tribal organization.

**APM CUL-4: Cultural Resources Inventory**

The temporary construction staging areas shall be surveyed prior to construction. If additional proposed facilities and ground-disturbing activities move outside the previously surveyed acreage, the new areas shall be subjected to a cultural resources inventory to ensure that any newly identified cultural resources are either avoided by project redesign or evaluated and treated.

**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. LS Power's qualified archaeologist shall contact the County of Santa Clara Coroner to determine whether or not the remains are Native American. If the remains are determined to be Native American, the Coroner shall contact the NAHC. The NAHC shall then identify the person or persons it believes to be the most likely descendant of the deceased Native American, who in turn shall make recommendations for the appropriate means of treating the human remains and any associated funerary objects. No part of the Proposed Project is located on federal land and no federal monies are involved; therefore, the Proposed Project is not subject to the Native American Graves Protection and Repatriation Act (NAGPRA) of 1990.

### 5.5.7 PG&E BEST MANAGEMENT PRACTICES

The following cultural resource-specific BMPs would be implemented for the activities to be completed by 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.

**BMP CULT-2: Archaeological and Native American Monitoring**

Archaeological and Native American monitoring shall occur for all project-related ground disturbance affiliated with work at or adjacent to San Jose B Substation and Metcalf Substation. PG&E will retain a qualified archaeologist and Native American monitor for all ground disturbing activities completed by PG&E. The archaeological and Native American monitor will closely inspect all exposed surfaces and sediments for cultural resources in result of construction activities and have stop work authority if a cultural resource is identified. Furthermore, the CRM and Native American monitor/representative will work with construction crews in systematically redirecting ground disturbing activities until the CRS and Native American monitor/representative can investigate the cultural resource discovery.

During the project, unanticipated discoveries of cultural resources will be handled in accordance with PG&E's inadvertent discoveries protocols and California State Public Resources Code 5097.9. No invasive archaeological testing/excavation will occur, and no artifacts will be collected without additional consultation with the Native American tribal monitors. All unanticipated finds will be reported in the Cultural Resources Monitoring log and within the final monitoring report for the entire project. With permission from the Native American tribal monitors, the Project Archaeologist will provide sufficient information regarding the find to document the find and create a site record, information could include photographs, measurements, description, and locational data of the discovery. The Stop Work on construction in the vicinity of the resource will remain in force until all parties have consulted and resource avoidance or appropriate mitigation measures for effects have been resolved.

**BMP CULT-3: Inadvertent Discovery**

If any new cultural resources are encountered during project activities, all work must be suspended in the vicinity (approximately 100 ft.) of the resource and the Cultural Resource Specialist (CRS): shall be immediately notified. At that time, the CRS will 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-4: Flag and Avoid Known Resources**

Sites will be marked with flagging tape, safety fencing, and/or sign designating it as an "environmentally sensitive area" to ensure that PG&E construction crews and heavy equipment will not intrude on these sites during construction. At the discretion of the PG&E CRS, monitoring may be done in lieu of or in addition to flagging. If it is determined that the project cannot avoid impacts on one or more of the sites, then, for those sites that have not been previously evaluated, evaluation for inclusion in the NRHP/ CRHR will be conducted. Should the site be found eligible,

appropriate measures to reduce the impact to a less-than-significant level will be implemented, including but not limited to data recovery, photographic and archival documentation, or other measures as deemed appropriate. If it is determined that sites that have been previously determined to be eligible for inclusion in either the NRHP or CRHR cannot be avoided, measures will be implemented to reduce the impact to a less-than-significant level, including but not limited to data recovery, photographic and archival documentation, or other measures as deemed appropriate.

**BMP CULT-5: Human Remains**

In keeping with the provisions provided in 7050.5 of the California Health and Safety Code (CHSC) and Public Resource Code 5097.98, if human remains are encountered (or are suspected) during any project-related activity, PG&E shall:

- Stop all work within 100 ft.;
- Immediately contact: 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.

## 5.6 ENERGY

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? | | | X | |
| b. | Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? | | | | X |
| c. | Add capacity for the purpose of serving a non-renewable energy source? | | | | X |

This section describes the energy resources within the vicinity of the Proposed Project, as well as the potential impacts that could result from construction and operation and maintenance (O&M) of the Proposed Project.

### 5.6.1 ENVIRONMENTAL SETTING

The existing Pacific Gas and Electric Company (PG&E) San Jose B and Metcalf substations are an integral part of the Greater Bay Area transmission system that delivers electricity in the region. The Proposed Project is a reliability-driven project that would support the regional transmission system by providing an additional controllable high-voltage direct current (HVDC) transmission path, which would allow for better utilization of the electrical grid by resolving and preventing additional overloads. Additionally, the Proposed Project would provide reduced local capacity requirements in the San José area as well as the overall Greater Bay Area, which would provide greater grid stability and reduce reliance on local gas generation (California Independent Service Operator [CAISO], 2022).

O&M of the existing PG&E San Jose B and Metcalf substations requires little or no use of energy and instead serve as a means to convert and deliver energy. The existing PG&E substations are unmanned and remotely controlled, with workers being on-site for required inspections or as needed in emergency situations. Similarly, the Proposed Project facilities, including the two proposed HVDC terminals, would include one new full-time technician to support the Proposed Project and other California projects operated by LS Power Grid California, LLC ("LS Power").

#### 5.6.1.1 Existing Energy Use

Existing infrastructure within the Proposed Project site has limited existing energy use. The existing San Jose B and Metcalf substations, which would be modified to accommodate the Proposed Project interconnections (described further in **Section 3.0**, *Proposed Project Description*), require minimal energy in the form of electricity from the PG&E grid. The proposed Skyline terminal site is currently a vacant lot surrounded by a chain-link fence. The proposed Grove terminal site is sited on a property that is currently used as an orchard with a perimeter fence, well, deteriorating outbuilding, and a radial electric distribution line.

Diesel and regular unleaded gasoline are utilized within the City of San José, the County of Santa Clara, and across all parts of the PG&E service territory. Regular unleaded gasoline is typically used to fuel passenger cars and small trucks, whereas diesel fuel is used in large trucks and construction equipment. Estimated City of San José gasoline sales in 2021 totaled 263 million gallons (California Energy Commission [CEC], 2023). The estimated County of Santa Clara gasoline sales in 2021 totaled 599 million gallons and 50 million gallons in diesel sales.

Based on the requirements of Senate Bill (SB) 100 (State of California, 2018), utility providers are required to have 60 percent of their energy portfolio supplied by renewable energy sources by 2030. The City of San José provides access to programs for providing energy service throughout the City: San José Clean Energy (SJCE) GreenSource and SJCE TotalGreen. The service provided to most of City of San José residents and businesses is GreenSource, which consists of 60 percent renewable energy (City of San José, 2023). SJCE TotalGreen provides 100 percent renewable energy service to those who choose this service. Similarly, the County of Santa Clara has the Silicon Valley Clean Energy (SVCE) program for communities to receive 100 percent carbon-free electricity. The energy is sourced from 50 percent renewables, such as wind and solar, and 50 percent from large hydropower (County of Santa Clara, 2023).

For those who opted out of the City of San José's and the unincorporated County of Santa Clara Clean Energy services, electricity is provided from PG&E. As of 2021, PG&E had achieved an approximately 54 percent renewable portfolio (California Public Utilities Commission [CPUC], 2022). Given this, PG&E's renewable portfolio for 2030 is ahead of the State's requirement and is estimated to be 70 percent (PG&E, 2022).

The ratio of renewable energy from both SJCE and PG&E would be expected to increase each year until reaching 100 percent by 2045 as required by California's Renewable Portfolio Standard (RPS).

### 5.6.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 5.6.2.1 Energy Regulatory Setting

**Federal**

***Energy Policy and Conservation Act and Energy Independence and Security Act***

The Energy Policy and Conservation Act (EPCA) was enacted in 1975 in response to an oil shortage crisis that occurred in 1973. The intent of the EPCA was to stabilize the national energy supply by increasing domestic production and storage and reducing demand through energy conservation. One of the key components of the EPCA was the establishment of Corporate Average Fuel Economy (CAFE) standards, which are further discussed below. The EPCA was amended in 2007 by the Energy Independence and Security Act (EISA). The function of the EISA is to bolster energy security in the U.S. by implementing energy efficiency standards for federal agencies and facilities, improving vehicle fuel economy, implementing sustainable building practices for federal facilities and renovations, and requiring increased use of renewable energy.

### *Corporate Average Fuel Economy Standards*

As part of the EPCA, the CAFE standards were required to reduce the demand for gasoline by increasing the fuel efficiency (i.e., miles per gallon) of passenger cars and light trucks sold in the United States. Specifically, these standards require automakers to achieve fleet-wide average fuel efficiencies, starting in the year 1978. The U.S. Department of Transportation, National Highway Traffic and Safety Administration regulate the CAFE standards, including setting the standards and enforcing compliance (n.d.). The U.S. Environmental Protection Agency (EPA) assists by providing technical support for the CAFE standards, including calculating the average fuel economy levels.

### *Energy Policy Act of 2005*

The Energy Policy Act of 2005 addresses energy production in the nation and covers such topics as energy efficiency, renewable energy, oil and gas, coal, Tribal energy, nuclear matters and security, vehicles, motor fuels (including ethanol), hydrogen, electricity, energy tax incentives, hydropower and geothermal energy, and climate change technology. The Energy Policy Act of 2005 provides incentives to reduce demand on non-renewable energy sources, such as tax credits for fuel efficient vehicles or appliances.

### *Energy Act of 2020*

The Energy Act of 2020 prioritizes research, development, and demonstration across a broad spectrum of energy technologies within the Department of Energy (DOE), including 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 down payment on the technologies that will be critical to reducing greenhouse gas emissions in the power sector, industry, and buildings and addressing climate change. This focus on research, development, and demonstration is intended to create high quality jobs and keep energy affordable while working towards a clean energy future.

## State

### *California Building Standards Code*

Part 11, Title 24 of the California Building Standards Code (CBSC), the California Green Building Code ("CALGreen"), was developed to enhance the design and construction of buildings and sustainable construction practices. CALGreen is a mandatory code that regulates the design and construction of buildings to reduce negative environmental impacts and promote sustainable practices. It covers aspects such as energy efficiency, water efficiency, material conservation, and environmental quality.

### *California Integrated Energy Policy*

SB 1389 was passed in 2002, requiring the CEC to develop an integrated energy plan every two years for electricity, natural gas, and transportation fuels for the California Energy Policy Report. The report provides an assessment of the status of the major energy sectors and provides policy recommendations to conserve resources, protect the environment, ensure reliability, enhance the State's economy, and protect public health. The CEC has adopted the 2022 Integrated Energy

Policy Report Update, which focuses on a variety of issues facing California, including climate adaptation and California's clean energy economy.

### *California Renewables Portfolio Standard*

The State of California adopted standards to increase the percentage that retail sellers of electricity, including investor-owned utilities (IOUs), electric service providers (ESPs), and community choice aggregators (CCAs), must provide from renewable resources. The standards are referred to as the RPS. The RPS requires all load-serving entities in California to procure a portion of their electricity sales from eligible renewable resources. SB 350 requires retail sellers and publicly owned utilities to procure 50 percent of their electricity from eligible renewable resources by 2030. In 2018, SB 100 was signed into law, which increased the RPS to 60 percent by 2030 and requires all the State's electricity to come from carbon-free resources by 2045. The CPUC implements and administers RPS compliance rules for California's retail sellers of electricity. The CEC is responsible for the certification of electrical generation facilities as eligible renewable energy resources and adopting regulations for the enforcement of RPS procurement requirements for public-owned utilities (POUs) (CPUC, 2021).

### *Energy Action Plan and Loading Order*

California has mandated and implemented aggressive energy use reduction programs for electricity and other resources. In 2003, California's first Energy Action Plan (EAP) established a high-level, coherent approach to meeting California's electricity and natural gas needs and set forth the "loading order" to address California's future energy needs. The "loading order" established that the State, in meeting its energy needs, would invest first in energy efficiency and demand-side resources, followed by renewable resources, and only then in clean conventional electricity supply (CPUC, 2008). Since that time, the CPUC and CEC have overseen the plans, policies, and programs for prioritizing the preferred resources, including energy efficiency and renewable energy. The plan also notes that investment in conventional transmission infrastructure is crucial to helping the State meet its renewable energy goals.

### *California Advanced Clean Cars Program/Zero Emission Vehicle Program*

The California Advanced Clean Cars Program ("ACC I") was adopted by the California Air Resources Board (CARB) in 2012 with the goal of reducing emissions of criteria pollutants and GHGs and packaging criteria pollutant (i.e., smog) and GHG reduction regulations into a single program. The Low-Emission Vehicle (LEV) regulations and Zero Emission Vehicle (ZEV) regulations were both rolled into the ACC I in 2012. The LEV regulations include emission standards that are anticipated to reduce vehicle emissions of criteria pollutants by 75 percent in 2025 when compared to 2012 average vehicles. The ZEV regulations require vehicle manufacturers to steadily increase the production of ZEVs, such as fuel cell cars, battery powered cars, and plug-in hybrid electric cars. In November 2020, Executive Order N-79-20 was published, which expressly adopted the goal of 100 percent ZEVs sold in California by 2035.

### *CARB Heavy-Duty Engine and Vehicle Omnibus Regulation*

The Truck and Bus Regulation was enacted to reduce mobile source emission of toxic air contaminants, which represent a large risk to human health within the State. Nearly all trucks and buses were required to have 2010 or newer engines by the year 2023. Key reductions within the post-2010 engines are emissions of particulate matter and oxides of nitrogen ($NO_x$). After the year

2020, only vehicles that are compliant with the Truck and Bus Regulation are be registered by the California Department of Motor Vehicles.

Off-road vehicles, such as construction equipment, are regulated by the In-Use Off-Road Diesel-Fueled Regulations. These regulations apply to all self-propelled, off-road diesel vehicles with a horsepower rating of 25 or higher. As with the Truck and Bus Regulations, the purpose of the Off-Road Regulations is to reduce the emissions of particulate matter and $NO_x$. Applicable equipment must be registered with CARB, and the information is stored and tracked through the Diesel Off-Road Online Reporting System (DOORS) (CARB, n.d.).

### *Integrated Energy Policy Report*

The CEC adopts an Integrated Energy Policy Report (IEPR) every two years, which provides a cohesive approach to identifying and solving the State's pressing energy needs and issues. The report contains an integrated assessment of major energy trends and issues facing California's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources and ensure a reliable, secure, and diverse energy supply, among other objectives. An update is published every other year and was most recently provided in February 2023 to address 2022 trends. Some of the key recommendations or actions from this update, as related to renewable energy resources, include the following:

- Examine how to balance the roles of distributed energy resources and grid assets in making the energy transition away from fossil fuels.
- Examine the role of interconnection and how utility process reform can increase the pace of distributed energy resources deployment.
- Initiate efforts to analyze opportunities for additional reliability investments and develop a Clean Energy Reliability Investment Plan.
- Enact the Strategic Electricity Reliability Reserve to make additional generation and load reduction available during extreme events.

## Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, "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 the City of San José and the County of Santa Clara do not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section includes a summary of local energy-related policies, plans, or programs for informational purposes. Although LS Power is not subject to local discretionary permitting, ministerial permits would be secured as appropriate.

### *County of Santa Clara General Plan*

The County of Santa Clara General Plan contains goals, strategies, and policies for the County as a whole, as well as rural unincorporated areas outside of cities and remaining unincorporated areas within cities' urban service areas (County of Santa Clara, 1994).

The following policies relating to energy resources are provided for informational purposes:

**Policy C-RC 71** Potential applications for waste transformation and energy generation technologies should be explored and encouraged.

**Policy C-RC 78** The objectives of the state energy plan should be implemented at the local and regional level through an overall strategy consisting of:
a. reducing transportation energy demand and oil-dependency;
b. conserving energy in residential, commercial, agricultural, and industrial sectors; and
c. increasing consumer and general public awareness through education.

**Policy C-RC 82** Alternatives to non-renewable energy sources should be encouraged and implemented in the design of new buildings and incorporated in the redesign and reconstruction of older buildings.

**Policy C-RC 83** Industrial and agricultural processes should be modified wherever feasible to take advantage of energy savings, to reduce operational costs, and to enhance competitiveness.

**Policy R-LU 73** The County's major gas and electric distribution system should be: adequate to meet the projected energy needs of the people of Santa Clara County; and compatible with the environmental resources and scenic qualities of the County.

### *City of San José General Plan*

The City of San José General Plan provides Measurable Environmental Sustainability (MS) goals for the City of San José through 2040, establishing measurable standards for the achievement of sustainable development practices (City of San José, 2024). The following MS goal and action items are provided for informational purposes of sharing the City of San José's energy conservation and renewable energy goals.

**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.

**Action MS-2.8** Develop policies which promote energy reduction for energy-intensive industries. For facilities such as data centers, which have high energy demand and indirect greenhouse gas emissions, require evaluation of operational energy efficiency and inclusion of operational design measures as part of development review consistent with benchmarks such as those in EPA's EnergyStar Program for new data centers. Also require

consideration of distributed power production for these facilities to reduce energy losses from electricity transmission over long distances and energy production methods such as waste-heat reclamation or the purchase of renewable energy to reduce greenhouse gas emissions.

**Goal MS-15** **Renewable Energy.** Receive 100% of electrical power from clean renewable sources (e.g., solar, wind, hydrogen) by 2022 and to the greatest degree feasible increase generation of clean, renewable energy within the City to meet its own energy consumption needs.

**Policy MS-15.4** Promote local innovation, research, development, and deployment of renewable energy and energy efficiency technologies.

**Policy MS-15.5** Showcase and apply innovative technologies within San José, including developments that achieve maximum energy efficiency or net zero energy, and renewable energy systems that generate energy equal to or greater than that consumed on site.

**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.

**Policy MS-16.3** Consider benefits and risks of alternative energy sources and evaluate the City's position on alternative energy sources.

**Action MS-16.6** Create partnerships and governance structures that improve the overall efficiency and reliability of energy production and supply.

### 5.6.3 IMPACT QUESTIONS

#### 5.6.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to energy come from the California Environmental Quality Act (CEQA), Appendix G, Environmental Checklist. According to the CEQA Checklist, a project may cause a potentially significant impact if it would:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

#### 5.6.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing Proponent's Environmental Assessments* (CPUC, 2019), the following additional CEQA Impact Question is required for energy. Would the project:

- Add capacity for the purpose of serving a non-renewable energy resource?

### 5.6.4 IMPACT ANALYSIS

#### 5.6.4.1 Energy Impact Analysis

**Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

**Less-Than-Significant Impact.** Construction activity associated with the Proposed Project would require the consumption of fossil fuel resources, such as diesel fuel and gasoline, to power the construction equipment, construction vehicles, and work crew vehicles. Proposed Project construction activities are not anticipated to involve the consumption of natural gas. Additionally, construction may utilize electrical energy directly from the existing system to power construction trailers, lighting, and other equipment.

The short-term use of fuels by equipment and motor vehicle trips during construction would be necessary to install and remove the facilities, respectively. Using estimated GHG emissions (refer to **Section 5.8**, *Greenhouse Gas Emissions* and **Appendix 5.3-A**, *Air Quality and GHG Modeling Files*), the volume of diesel and gasoline fuels that would be utilized during construction were calculated. These calculations are shown in **Appendix 5.6-A**, *Fuels Use Calculations*. Construction of the Proposed Project is estimated to consume a total of approximately 24,181 gallons of gasoline and 835,707 gallons of diesel fuel. Because the Proposed Project is not anticipated to utilize helicopters, no jet fuel or aviation gas would be consumed. To put these estimates in context, estimated County of Santa Clara gasoline sales in 2021 totaled 599 million gallons, and estimated diesel fuel sales totaled 50 million gallons (CEC, 2023). Therefore, the Proposed Project's use of diesel and gasoline fuels would be de minimis compared to the volumes consumed within the County per year. Impacts would be less than significant.

Construction activities may also utilize existing energy directly from the existing PG&E distribution system. A temporary distribution line (i.e., 12 kilovolts [kV]) could be established to provide power to the staging areas and both proposed HVDC terminal sites during construction. The use of temporary generators for construction at the proposed HVDC terminals and staging areas would be a contingency if distribution power is not available in a timely manner prior to construction commencing. Temporary mobile generators would be required during construction of the proposed underground transmission lines. The same distribution system would also serve to provide electrical energy to the proposed Skyline and Grove terminal facilities during O&M. The temporary power, provided by PG&E, would be representative of PG&E's current energy supply portfolio. Based on the requirements of SB 100 (State of California, 2018), utility providers are required to have 60 percent of their energy portfolio supplied by renewable energy sources by the year 2030. As of 2021, PG&E had achieved an approximately 54 percent renewable portfolio (CPUC, 2022). Given this, PG&E's renewable portfolio for 2028 (the Proposed Project in-service

year) is estimated to be approximately 58 percent. The ratio of renewable energy would be expected to increase each year until reaching 60 percent by 2030 as required by California's RPS.

Once construction is complete, the Proposed Project would be remotely operated as discussed further in **Section 3.8**, *Operation and Maintenance*. Maintenance and normal operations, including inspections of the Proposed Project components, would require use of fossil fuels (e.g., diesel, gasoline) for motor vehicle trips and occasional use of construction equipment. Use of these fuels would be necessary for normal O&M activities, including periodic inspections, equipment testing, and repairs. One new full-time technician would be retained by LS Power to support the Proposed Project and other California projects operated by LS Power. No other induced or direct population growth would occur as a result of the Proposed Project. Maintenance would be incorporated within existing maintenance programs. Using the GHG emissions estimates (refer to **Section 5.8** and **Appendix 5.3-A**), O&M of the Proposed Project is anticipated to utilize approximately 718 gallons of gasoline per year (refer to **Appendix 5.6-A**). As with construction fuel usage, the Proposed Project's O&M usage would be minimal compared with the total volumes consumed in the County of Santa Clara on a yearly basis.

Operation of Proposed Project equipment at the HVDC terminal sites, such as lighting and heating, ventilation, and air conditioning (HVAC), would also consume energy. It is assumed that the total demand on-site would be 200 kilowatts (kW) continuous for each of the proposed HVDC terminal sites. This would equate to roughly 1,752,000 kilowatt hours (kWH) per year. Since the Proposed Project would use only electrical energy, the energy usage is assumed to be representative of PG&E's current energy supply portfolio.

The Proposed Project would allow for more efficient transmission and use of energy already being generated within the PG&E system, including increasing renewable sources in the County of Santa Clara. By upgrading the existing system to be more reliable, the Proposed Project would improve the efficiency of the system's ability to transfer and deliver electricity to California's end users and result in a net benefit in relation to the efficient use of energy within the vicinity of the Proposed Project. The Proposed Project has been designed to comply with all applicable federal, state, and local energy use conservation requirements and would not result in significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources during Proposed Project construction or operation. Impacts would be less than significant under this criterion for operations and maintenance.

**PG&E Facility Upgrades**

In order to integrate the proposed HVDC terminals and new Grove to Skyline 320 kV direct current (DC) transmission line into the existing transmission system, PG&E would be required to perform upgrades at two existing substations: modifications to the Metcalf substation and expansion of the San Jose B substation (refer to **Section 3.3.5**, *Other Potentially Required Facilities*). The substation upgrades would occur within and adjacent to the existing substation facilities. The PG&E facility upgrades would also include a new water line to the existing Metcalf substation, which would extend approximately 800 feet north-northeast from the Metcalf substation and connect to an existing 16-inch water main near the corner of Metcalf Road and Malech Road, which is served by the Great Oaks Water Company. Similar to the Proposed Project, the PG&E facility upgrades would not result in significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources during construction and maintenance. Furthermore, the proposed upgrades would facilitate implementation of the proposed HVDC

system, which would increase the use of renewable resources. Impacts would be less than significant.

**Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?**

**No Impact.** The State and local plans that are evaluated with respect to the Proposed Project include, but are not limited to, the State RPS program, City of San José General Plan's MS goals, and County of Santa Clara General Plan, which are described in **Section 5.6.2**, *Regulatory Setting*. During construction of the Proposed Project, there would be a temporary increase in demand for electricity resources and fuel resources for vehicles and construction equipment; however, this temporary increase would be minor. Operation of the Proposed Project would also require minor amounts of electricity and fuel resources, as described above and in **Section 3.0**.

All electricity retail sellers had an interim target between compliance periods to serve at least 27 percent of their load with RPS-eligible resources by December 31, 2017. In general, retail sellers either met or exceeded the interim 27 percent target and are on track to achieve their compliance requirements. California's three large IOUs collectively served 36 percent of their 2017 retail electricity sales with renewable power. The Small and Multi-Jurisdictional Utilities (SMJUs) and ESPs served roughly 27 percent of retail sales with renewables, and CCAs collectively served 50 percent of retail sales with renewable power. All retail sellers utilize a mix of RPS resources, such as wind, solar photovoltaic (PV), solar thermal, hydroelectricity, geothermal, and bioenergy to meet their renewable procurement targets (CPUC, 2021).

The Proposed Project would support the City of San José General Plan's MS goals to conserve energy, utilize renewable energy, and provide access to efficient and reliable energy for all City residents. The Proposed Project would also be consistent with the County of Santa Clara General Plan's renewable energy goals that focus on distribution system reliability and adequacy to meet the projected needs of the County.

As discussed in **Section 3.2**, *Existing and Proposed System*, the Proposed Project would increase the efficiency of the existing transmission network and would not introduce new energy demands or increase capacity. Nor would the Proposed Project generate energy. The Proposed Project would allow for more efficient transmission and use of energy already being generated within the PG&E system, including increasing renewable sources. The Proposed Project would improve California's ability to supply renewable energy to end-use customers and to achieve Statewide renewable energy goals, specifically increased production of renewable energy within the greater PG&E service territory. Additionally, the Proposed Project would not prevent renewable energy sources from being used as a source of electricity in the future.

Therefore, the Proposed Project would comply with the State RPS program and would not interfere with any of the City of San José or the County of Santa Clara local plans for renewable energy or energy efficiency. As such, there would be no impacts under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Similar to the Proposed Project, the PG&E facility upgrades would comply with the State RPS program and would not interfere with any of the City of San

José or the County of Santa Clara local plans for renewable energy or energy efficiency. No impacts would occur under this criterion as a result of the PG&E facility upgrades and new water line.

**Would the project add capacity for the purpose of serving a non-renewable energy source?**

**No Impact.** The Proposed Project would be consistent with the guidelines of the State RPS program to reach RPS targets for renewable resources. The Proposed Project would be implemented to meet existing and future system reliability and voltage support demands; as such, it would not increase the demand for electricity. While the Proposed Project would increase the capacity of the existing transmission system, such an increase would serve existing sources, which include renewable and non-renewable sources. Therefore, the Proposed Project would not add capacity that would result in an increase in energy from non-renewable sources, such as coal and natural gas.

The Proposed Project, including the direct and indirect use of energy during construction and operation, would create or upgrade facilities that would improve California's ability to supply renewable energy to end-use customers and to achieve Statewide renewable energy goals. Specifically, increased production of renewable energy within the greater PG&E service territory and the ability to deliver this energy directly to the load area around the existing PG&E San Jose B substation would stabilize the transmission system. Thus, there would be no impacts under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Similar to the Proposed Project, the PG&E facility upgrades would be consistent with the State RPS program, would not increase energy demand, and would not add capacity for the purpose of serving a non-renewable energy source. No impacts would occur under this criterion as a result of the PG&E facility upgrades and new water line.

### 5.6.5 CPUC Draft Environmental Measures

There are no CPUC Draft Environmental Measures suggested for energy.

### 5.6.6 Applicant Proposed Measures

No Applicant Proposed Measures for energy would be implemented for the Proposed Project.

### 5.6.7 PG&E Best Management Practices

No energy Best Management Practices have been included for PG&E's scope of work.

## 5.7 GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| 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. | | | X | |
| | ii) Strong seismic ground shaking? | | | X | |
| | iii) Seismic-related ground failure, including liquefaction? | | | X | |
| | iv) Landslides? | | | X | |
| b. | Result in substantial soil erosion or the loss of topsoil? | | | X | |
| 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? | | | X | |
| d. | Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? | | | X | |
| 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? | | | | X |
| f. | Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | | | X | |

This section describes the geology, soils, and paleontological resources within the vicinity of the Proposed Project as well as potential impacts that could result from construction and operation and maintenance (O&M) of the Proposed Project.

## 5.7.1 ENVIRONMENTAL SETTING

### 5.7.1.1 Regional and Local Geologic Setting

The Proposed Project site is located in the Coast Range Province, which spans approximately 400 miles along the California coast from the northern California border to the County of Santa Barbara, and approximately 50 to 75 miles from the Pacific Ocean 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 (California Department of Conservation [DOC], 2002). The northern and southern ranges are separated by a depression containing the San Francisco Bay (California DOC, 2002). The Proposed Project is located in the southern ranges just south 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 with slopes varying between 20 to 60 percent. 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 to 3,400 feet, with the highest point being Loma Prieta Peak at 3,806 feet (City of San José, 2024).

Santa Clara Valley was created by the sudden growth of the Santa Cruz Mountains and the Diablo Range during the later Cenozoic era (National Park Service, 2018). This was a period of intense mountain building in California when the folding and thrusting of the earth's crust, combined with active volcanism, gave shape to the present state of California. Hence, Santa Clara Valley is a structural valley, created by mountain building, as opposed to an erosional valley, or one which has undergone the wearing away of the earth's surface by natural agents. The Santa Clara Valley varies in elevation from the San Francisco Bay to 150 feet above mean sea level (amsl) to the east and 400 feet amsl to the south, with an average grade of two percent (City of San José, 2024).

Marine and non-marine rocks underlie most of the region around the Proposed Project area. These strata range in age from Pleistocene (2.6 million years ago [mya] to 11,000 years ago) to Holocene (11,000 years ago to today). A small segment of the Proposed Project area is plutonic rocks of the Mesozoic era (251.9 mya to 66.0 mya). Northeast and southwest of the Proposed Project area, the regional geology is dominated by marine and non-marine sedimentary and metasedimentary rocks. The dominant mapped unit in the region is of the Pleistocene and Pliocene era (5.3 mya to 2.6 mya) (National Park Service, 2021). The elevation within the Proposed Project area ranges from approximately 80 feet amsl in the northern boundary to approximately 257 feet amsl at the southern boundary. The proposed Grove to Skyline 320 kilovolt (kV) direct current (DC) transmission line alignment is also characterized by relatively flat paved roadways. The land surrounding the northern portion of the Proposed Project area is highly developed, whereas the land in the southern portion within Coyote Valley is more rural with open space and agricultural uses.

### 5.7.1.2 Seismic Hazards

The San Francisco Bay Area is one of the most seismically active areas in the United States (County of Santa Clara, 1994). The sections below discuss the potential seismic hazards that are located within 10 miles of the Proposed Project area.

**Active Faults**

Significant earthquakes occurring in the San Fransisco Bay Area are generally associated with crustal movement along well-defined, active fault zones of the San Andreas Fault system, which spans the Coast Ranges from the Pacific Ocean to the San Joaquin Valley (City of San José, 2011). The San Andreas Fault generated the great San Francisco earthquake of 1906 and the Loma Prieta earthquake of 1989 and passes through the Santa Cruz Mountains southwest of the City of San José. Two other major active faults near the City of San José are the Hayward Fault, located to the north, and the Calaveras Fault, located in the hills to the east. These two faults merge in a series of splays and step-overs in the hills between Mission Peak and Mount Hamilton. There are also several smaller potentially active faults in the area.

United States Geological Survey (USGS) quaternary fault maps (USGS, 2023a) and California Geological Survey (CGS) fault activity maps (California DOC, 2015) were reviewed to determine the active faults within 10 miles of the Proposed Project area. **Figure 5.7-1**, *Fault Map* illustrates the location of these faults, which is also described further below. The USGS quaternary fault maps' terminology refers to both "faults" and "fault zones" to describe these regions, depending on the size and character of rock fractures. A "fault" is a fracture between two blocks of rock that is generally mapped on the USGS quaternary fault maps as a single line, while a "fault zone" describes multiple fractures between blocks of rock that result in a seismic area with a common cause (USGS, 2024a, 2024b). For example, the Hayward Fault Zone is a series of rock fractures that is mapped as multiple fault lines across one region that encompasses several individual named faults. USGS faults and fault zones are also distinct from Alquist-Priolo Fault Hazard Zones, which describe regulatory zones surrounding the surface traces of active faults in California where local agencies regulate development projects (California DOC, 2023a). The terminology for faults and fault zones described in this section and reflected in **Figure 5.7-1** and **Table 5.7-1**, *Faults within 10 Miles of the Proposed Project* below, is consistent with the USGS quaternary fault maps (USGS, 2023a).

The Proposed Project is not located within an area mapped as an Alquist-Priolo Fault Hazard Zone; the nearest mapped zone is more than three miles east of the Proposed Project area. There are 13 faults or fault zones located within a 10-mile radius of the Proposed Project area. These are described below in **Table 5.7-1**.

An active fault can be considered one that has ruptured in the last 11,000 years or during the Holocene epoch (California DOC, 2023a). Therefore, Historic or Latest Quaternary age faults can be considered active for the purposes of this evaluation. Since the Arroyo Aguague Fault, Berrocal Fault Zone, Calero Fault, Cascade Fault, Lexington Fault Zone, San Jose Fault, Silver Creek Fault Zone, and Stanford Fault are Late Quaternary or Undifferentiated Quaternary age faults, they are not considered to be active. In addition, the Berrocal Fault Zone (Bryant, W.A., 2000a) and Silver Creek Fault Zone (California Division of Mines and Geology, 1981) were evaluated, and no evidence of rupture within the last 11,000 years was observed. Therefore, these inactive faults are not discussed further. While the Coyote Creek Fault Zone is of Undifferentiated Quaternary age and, therefore, not considered an active fault, the proposed Grove to Skyline 320 kV DC transmission line crosses this fault zone near the intersection of Monterey Road and East Capitol Expressway. Therefore, this fault zone is described further below, as well as the active faults within 10 miles of the Proposed Project area.

| Table 5.7-1: Faults within 10 Miles of the Proposed Project | | | | |
|---|---|---|---|---|
| **Fault Name** | **Age** | **Sense of Slip** | **Status** | **Approx. Distance from Proposed Project** |
| Arroyo Aguague Fault | Undifferentiated Quaternary[4] | Reverse | Non-Active | 6.4 miles east |
| Berrocal Fault Zone | Undifferentiated Quaternary | Reverse | Non-Active | 7.1 miles southwest |
| Calaveras Fault Zone | Historic[1], Latest Quaternary[2], or Undifferentiated Quaternary | Right lateral | Active | 4.2 miles east |
| Calero Fault | Undifferentiated Quaternary | N/A | Non-Active | 3.6 miles west |
| Cascade Fault | Undifferentiated Quaternary | Reverse | Non-Active | 5.0 miles west |
| Coyote Creek Fault Zone | Undifferentiated Quaternary | Reverse | Non-Active | Intersects Proposed Project |
| Hayward Fault Zone | Historic, Latest Quaternary, Late Quaternary[3], or Undifferentiated Quaternary | Right lateral | Active | 2.3 miles east |
| Lexington Fault Zone | Undifferentiated Quaternary | N/A | Non-Active | 9.7 miles west |
| Monte Vista-Shannon Fault Zone | Latest Quaternary, Late Quaternary, or Undifferentiated Quaternary | Reverse | Active | 1.5 miles west |
| San Jose Fault | Undifferentiated Quaternary | Unspecified | Non-Active | 0.8 mile west |
| Sargent Fault Zone | Latest Quaternary | Reverse | Active | 9.2 miles southwest |
| Silver Creek Fault Zone | Undifferentiated Quaternary | Right lateral | Non-Active | 1.0 mile east |
| Stanford Fault | Undifferentiated Quaternary | Unspecified | Non-Active | 2.4 miles west |

Source: USGS and CGS, 2023

N/A = not available

Notes

[1] Historic age faults are less than 150 years old
[2] Latest Quaternary age faults are less than 15,000 years old
[3] Late Quaternary age faults are less than 750,000 years old
[4] Undifferentiated Quaternary age faults are less than 1.6 million years old

### *Coyote Creek Fault Zone*

The Coyote Creek Fault Zone is a moderately to steeply dipping reverse fault that offsets Mesozoic serpentine over Plio-Pleistocene Santa Clara Formation (California Division of Mines and Geology, 1981). The Coyote Creek Fault Zone intersects the Proposed Project area. The fault is locally well-defined; however, no geomorphic evidence of Holocene-active faulting was observed along traces of the fault (non-active fault).

### *Calaveras Fault Zone*

The Calaveras Fault Zone is associated with the larger San Andreas Fault system and is a well-defined, recently active strike-slip fault that exhibits clear evidence of major, right-lateral slip during Holocene time (California Division of Mines and Geology, 1981). This fault generally trends along the eastern side of the East Bay Hills, bounds the western side of San Ramon Valley, extends into the western Diablo Range, bounds the eastern side of Santa Clara Valley, extends into Hollister Valley, and eventually joins the San Andreas Fault Zone along the eastern part of the Gabilan Range (Bryant and Cluett, 1999). This fault is divided into three segments, and the Proposed Project area is primarily located within the central segment, with the closest mapped portion of the fault approximately 4.2 miles from the Proposed Project area.

Historically, the southern half of the central segment of the Calaveras Fault has been the most seismically active segment of the fault (Bryant and Cluett, 1999). It produced the magnitude-5.4 Alum Rock earthquake in 2007, the magnitude-6.2 Morgan Hill earthquake in 1984, and a magnitude-6.2 earthquake in 1911. The magnitude-5.9 Coyote Lake earthquake in 1979 ruptured slightly to the south of these other earthquakes. The most recent earthquake associated with this fault appears to be a magnitude-5.1 earthquake and aftershocks that occurred on October 25, 2022 (USGS, 2023b). Because its rate of creep nearly matches the total fault slip rate, it is widely believed that this segment of the fault is not capable of an earthquake having a magnitude much larger than the 1984 Morgan Hill earthquake.

### *Hayward Fault Zone*

The Hayward Fault Zone is a major active fault in the San Francisco Bay Area and, like most of the faults in the Bay Area, is a right-lateral strike slip fault (USGS, 2020). A component of the San Andreas Fault system, the Hayward Fault Zone extends about 74 miles through the East Bay, from its junction with the Calaveras Fault southeast of the City of San José to where it eventually connects with the Rodgers Creek Fault Zone beneath San Pablo Bay. The closest mapped portion of the Hayward Fault Zone is approximately 2.3 miles from the Proposed Project area, with additional portions extending to 10 miles and beyond.

The Hayward Fault Zone not only produces earthquakes but also creeps aseismically, which means it slips slowly and continuously and causes displacement at the ground surface (USGS, 2020). The last large earthquake on the Hayward Fault Zone occurred over 150 years ago on October 21, 1868. The Hayward Fault Zone has a 33 percent probability of producing a magnitude-6.7 or greater earthquake by the year 2043.

### *Monte Vista-Shannon Fault Zone*

The Monte Vista-Shannon Fault Zone is a Late Quaternary active and possibly Holocene active, reverse to reverse-dextral oblique slip fault that forms a part of the southwestern Santa Clara Valley thrust belt, which is located generally along the foothills of the northeastern Santa Cruz Mountains (Bryant, W.A., 2000b). The closest mapped portion of the Monte Vista-Shannon Fault Zone is approximately 1.5 miles from the Proposed Project area. Geology of the fault indicates possible displacement, and significant portions of the fault are concealed by Holocene alluvium. Evidence implies a recurrence of earthquakes approximately every 400 years. The Monte Vista-Shannon Fault Zone has the potential of producing a magnitude-6.5 or greater earthquake (USGS, 2008).

### *Sargent Fault Zone*

The southeastern segment of the Sargent Fault shows Holocene displacement and a minor creep rate. The closest mapped portion of the Sargent Fault Zone is approximately 9.2 miles from the Proposed Project area The fault likely has a recurrence rate of earthquakes every 1,200 to 1,300 years and has experienced four earthquakes in the last 5,940 years (Bryant, W.A., 2000c). Several fault traces associated with this active fault zone coincide with a zone of well-located earthquake epicenters, which suggests recent activity (California Division of Mines and Geology, 1980).

### Landslides

Given that the Proposed 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 Proposed Project area, 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 Proposed Project is located, due to its relatively flat topography (zero to two percent slope) and distance from hills, mountains, or slopes. The Proposed Project site is not located within a landslide hazard area, as indicated by the California DOC Geological Interactive Data inventory (California DOC, 2023b).

### Liquefaction

Liquefaction is a seismic phenomenon in which loose, saturated, fine-grained granular soils behave similar to a fluid when subjected to high-intensity ground shaking. An increase in pore water pressure occurs as the soil attempts to compact in response to the shaking, resulting in less grain-to-grain soil contact and, therefore, loss of strength. Liquefaction occurs when three general conditions exist: shallow groundwater (40 feet below ground surface [bgs] or less); low density, fine-grained sandy soils; and high-intensity ground motion. Effects of liquefaction on level ground can include sand boils, settlement, and bearing capacity failures below structural foundations. CGS has designated certain areas within California as potential liquefaction hazard zones. These are areas that are considered at risk of liquefaction-related ground failure during a seismic event, based upon mapped surficial deposits and the presence of a relatively shallow water table. As shown in **Figure 5.7-2**, *Liquefaction Map*, the majority of the Proposed Project area is located within a potential liquefaction hazard zone (California DOC, 2023b).

Lateral spread is a type of liquefaction-induced ground failure that occurs on gentle slopes or near free-faces, such as river channels. Lateral spread occurs when surface material extends or spreads on gentle slopes and is often associated with earthquake-induced ground shaking. Horizontal displacement due to lateral spreading can be damaging to foundations, bridges, roadways, pipelines, and other underground utilities. When coherent soil material, typically either bedrock or soil, sits on top of materials that liquefy, the upper units may undergo fracturing and extension and then subside, disintegrate, or liquefy and flow (USGS, 2024c). Lateral spreading in fine-grained materials on shallow slopes usually starts suddenly in a small area and spreads rapidly. Areas in the liquefaction zone, as shown in **Figure 5.7-2**, are potentially susceptible to lateral spreading where they are located on gentle slopes or adjacent to river channels.

### 5.7.1.3 Geologic Units

Geologic units that occur within one mile of the Proposed Project area are shown in **Figure 5.7-3**, *Geological Units Map*. As shown in **Table 5.7-2**, *Geological Units within One Mile of the Proposed Project*, there are seven total classifications of rock type found within one mile of the Proposed Project area. The geological unit that underlays the majority of the Proposed Project area is Pleistocene-Holocene sedimentary rock. Portions of the Proposed Project also sit on Mesozoic plutonic rock.

**Table 5.7-2: Geological Units within One Mile of the Proposed Project**

| Unit Classification | General Lithology | Description | Era |
|---|---|---|---|
| Q | Marine and nonmarine (continental) sedimentary rocks | Alluvium, lake, playa, and terrace deposits; unconsolidated and semi-consolidated. Mostly nonmarine but includes marine deposits near the coast. | Pleistocene-Holocene |
| um | Plutonic rocks | Ultramafic rocks, mostly serpentine. Minor peridotite, gabbro, and diabase; chiefly Mesozoic. | Mesozoic |
| Qoa | Marine and nonmarine (continental) sedimentary rocks | Older alluvium, lake, playa, and terrace deposits. | Pleistocene |
| KJf | Marine sedimentary and metasedimentary rocks | Franciscan Complex: Cretaceous and Jurassic sandstone with smaller amounts of shale, chert, limestone, and conglomerate. Includes Franciscan melange, except where separated. | Cretaceous-Jurassic |
| K | Marine sedimentary and metasedimentary rocks | Undivided Cretaceous sandstone, shale, and conglomerate; minor nonmarine rocks in Peninsular Ranges. | Cretaceous |
| QPc | Nonmarine (continental) sedimentary rocks | Pliocene and/or Pleistocene sandstone, shale, and gravel deposits; mostly loosely consolidated. | Pliocene-Pleistocene |
| E | Marine sedimentary rocks | Shale, sandstone, conglomerate, minor limestone; mostly well consolidated. | Eocene |

Source: USDA, 2023a

### 5.7.1.4 Soils

A review was conducted of the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA, 2023). As depicted in **Figure 5.7-4**, *Soil Types Map* and listed in **Table 5.7-3**, *Soil Types within the Proposed Project Area*, the Proposed Project area is underlain by numerous soil types**.**

| Table 5.7-3: Soil Types within the Proposed Project Area | |
|---|---|
| **Soil Type** | **K Factor*** |
| Urban land-Campbell complex, 0 to 2 percent slopes, protected | N/A |
| Urban land-Elpaloalto complex, 0 to 2 percent slopes | N/A |
| Urban land-Newpark complex, 0 to 2 percent slopes | N/A |
| Urban land-Hangerone complex, 0 to 2 percent slopes, drained | N/A |
| Urban land-Still complex, 0 to 2 percent slopes | N/A |
| Los Robles clay loam, 2 to 9 percent slopes | 0.28 |
| Montara-Santerhill complex, 30 to 50 percent slopes | 0.32 |
| Yolo silty clay loam, 0 to 2 percent slopes, rarely flooded | 0.37 |
| Cortina very gravelly loam, 0 to 5 percent slopes | 0.10 |
| Riverwash | N/A |
| Garretson loam, gravel substratum, 0 to 2 percent slopes | 0.24 |
| Source: USDA, 2023<br>*The NRCS typically rates each soil type according to its whole soil water erosion potential. Values of K range from 0.02 to 0.69. The higher the value, the more susceptible the soil is to sheet and rill erosion by water. | |

## Soil Hazards

Lateral spreading and liquefaction are discussed in **Section 5.7.1.2**, *Seismic Hazards*. Other potential hazards from unstable soils are discussed below.

### *Subsidence*

The primary causes of most subsidence are human activities, including groundwater or petroleum withdrawal from large alluvial basins with thick accumulations of unconsolidated sediments, and drainage of organic soils. Regional lowering of land elevation has occurred gradually over time. The Santa Clara Valley region has experienced subsidence due to the withdrawal of groundwater for agricultural, domestic, and industrial uses at a higher rate than natural and artificial replenishment (USGS, 2023c). Soil types that are common in the Santa Clara Valley region where subsidence has occurred include Urban land-Campbell complex, zero to two percent slopes, protected; and Urban land-Elpaloalto complex, zero to two percent slopes. The Santa Clara Valley Water District (SCVWD or "Valley Water") began managing groundwater and subsidence conditions, including ongoing groundwater recharge since the 1970s, which has halted further subsidence in the area (SCVWD, 2023). Geotechnical studies to be completed for the Proposed Project would evaluate Proposed Project facility locations for conditions susceptible to subsidence.

### *Soil Collapse*

Soil collapse occurs when added moisture causes bonds between soil particles to weaken, which allows the soil structure to collapse and the ground surface to subside. Collapsible soils are generally low-density, fine-grained combinations of clay and sand left by mudflows that have dried, resulting in the formation of small air pockets in the subsurface, such as Yolo silty clay loam and Los Robles clay loam. The addition of moisture reduces the strength of the soil, resulting in collapse or subsidence. Some of the area surrounding the Proposed Project contains weak soils

subject to collapse (City of San José, 2011). Geotechnical studies to be completed for the Proposed Project would evaluate Proposed Project facility locations for conditions susceptible to soil collapse.

***Expansive Soils***

Much of the soil in the City of San José is moderately to highly expansive. In general, moderately to highly expansive soils are found on the Santa Clara Valley floor and on hillside areas (City of San José, 2011). Expansive soils are clayey soils that have a high plasticity index, such as Yolo silty clay loam and Los Robles clay loam. Typical shallow reinforced concrete spread-footing foundations, such as those for buildings and other foundations covering a considerable area of ground, can be affected by expansive soils if such soils are present close to the ground surface. The area surrounding the Proposed Project contains weak and expansive soils, and much of the soil can be considered moderately to highly expansive (City of San José, 2011). Geotechnical studies to be completed for the Proposed Project would evaluate the Proposed Project facility locations for conditions susceptible to expansive soils.

***Soil Erosion***

Natural forces, both chemical and physical, are continually at work breaking down soils. Erosion poses two hazards: it removes soils, thereby undermining roads and buildings and producing unstable slopes, and it deposits eroded soil into reservoirs, lakes, drainage structures, and on roads as mudslides. The NRCS typically rates each soil type according to its whole soil water erosion potential (Kw). The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and saturated hydraulic conductivity (Ksat). Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water. As shown in **Table 5.7-3**, above, soil in the Proposed Project area has a K factor ranging from 0.10 to 0.37, which indicates a low-to-moderate whole soil erosion potential. Geotechnical studies to be completed for the Proposed Project would evaluate the conditions susceptible to erosion.

### 5.7.1.5 Paleontological Report

In October 2023, the Department of PaleoServices of the San Diego Natural History Museum (SDNHM) prepared the Paleontological Resources Technical Report (PaleoServices, 2024), included in **Appendix 5.7-A**, *Paleontological Resources Technical Report*. The report summarizes the results of the paleontological records search of the paleontological collections at SDNHM and University of California Museum of Paleontology (UCMP) 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 Proposed Project area. The report assigns a paleontological resource sensitivity rating to the geologic units underlying the Proposed Project site. The rating is based on the published geologic mapping, the results of the paleontological records searches, literature review, and assessment of potential Proposed Project-related impacts to paleontological resources.

The Proposed 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 the County of Ventura 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 Proposed 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. The Proposed Project alignment is underlain by an assortment of Holocene-age alluvial and fluvial deposit, as well as serpentinite of the Jurassic-age Coast Range Ophiolite complex. Based on published literature, the Holocene-age alluvial and fluvial deposits in this region transition at relatively shallow depths into older Pleistocene-age alluvial deposits (**Appendix 5.7-A**).

The results of the paleontological records searches and literature review indicate that fossils have not been documented from deposits of artificial fill, Holocene alluvial and fluvial deposits, or Jurassic Coast Range Ophiolite complete serpentinite within a 500-foot buffer of the Proposed Project site. Pleistocene-alluvial deposits were not mapped at the surface of the Proposed Project alignment but are known to underlie Holocene-age alluvial and fluvial deposits at relatively shallow depths. Therefore, the Holocene-age alluvial and fluvial deposits are assigned a low paleontological potential, and Pleistocene-age alluvial deposits are assigned a high paleontological potential; the artificial fill and Coast Range Ophiolite complex were assigned no paleontological potential. **Figure 5.7-5**, *Paleontological Resource Potential Map* depicts the areas of no, low, and high paleontological potential within the Proposed Project area.

## 5.7.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

### 5.7.2.1 Geology, Soils, and Paleontological Resources Regulatory Setting

**Federal**

***National Earthquake Hazards Reduction Program***

The National Earthquake Hazards Reduction Program (NEHRP) was established by the U.S. Congress when it passed the Earthquake Hazards Reduction Act of 1977, Public Law (PL) 95–124 (NEHRP, 2021). At the time of its creation, Congress' stated purpose for NEHRP was "to reduce the risks of life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards reduction program." In establishing NEHRP, Congress recognized that earthquake-related losses could be reduced through improved design and construction methods and practices, land use controls and redevelopment, prediction techniques and early-warning systems, coordinated emergency preparedness plans, and public education and involvement programs.

Since NEHRP's creation, it has become the Federal government's coordinated long-term nationwide program to reduce risks to life and property in the United States that result from earthquakes. Goals of the program include developing effective practices and policies for earthquake loss reduction and accelerating their implementation; improving techniques for reducing earthquake vulnerabilities of facilities and systems; improving earthquake hazards identification and risk assessment methods, and their use; and improving the understanding of earthquakes and their effects. NEHRP is a collaborative effort among Federal Emergency

Management Agency (FEMA), the National Institute of Standards and Technology (NIST), the National Science Foundation (NSF) and the USGS.

### *National Pollutant Discharge Elimination System*

The National Pollutant Discharge Elimination System (NPDES) permit program addresses water pollution by regulating point sources that discharge pollutants to "waters of the United States". Created in 1972 by the Clean Water Act (CWA), the NPDES permit program is authorized to state governments by the United States Environmental Protection Agency (EPA) to perform many permitting, administrative, and enforcement aspects of the program. The permit provides two levels of control: technology-based limits and water quality-based limits (if technology-based limits are not sufficient to provide protection of the water body). Under the CWA, EPA authorizes the NPDES permit program to state, Tribal, and territorial governments, enabling them to perform many of the permitting, administrative, and enforcement aspects of the NPDES program. In states authorized to implement CWA programs, EPA retains oversight responsibilities. Authorization for states, Tribes, and territories is through a process that is defined by CWA Section 402 (b) and 40 Code of Federal Regulations (CFR) Part 123.

Under these federal regulations, an operator must obtain a general permit through the NPDES Stormwater Program for all construction activities with ground disturbance of one acre or more. California State Water Resources Control Board's (SWRCB's) Statewide stormwater general permit for construction activity (Order WQ 2022-0057-DWQ) requires the implementation of Best Management Practices (BMPs) to reduce sedimentation into surface waters and to control erosion. One element of compliance with the NPDES permit is preparation of a Storm Water Pollution Prevention Plan (SWPPP), which includes implementation of BMPs to address control of water pollution, including sediment, in runoff during construction. (See **Section 5.10**, *Hydrology and Water Quality* for more information about the NPDES permit program and SWPPPs.)

## State

### *Alquist-Priolo Earthquake Fault Zoning Act*

California enacted the Alquist-Priolo Earthquake Fault Zoning Act in 1972 (Public Resource Code [PRC] Sections 2621 et seq.), which requires the establishment of "Earthquake Fault Zones" (EFZ) (formerly known as "Special Studies Zones") along known active faults in California. Under the Alquist-Priolo Earthquake Fault Zoning Act, construction along or across faults is strictly regulated if they are "sufficiently active" and "well defined." A fault is considered sufficiently active if one or more of its segments shows evidence of displacement during Holocene time (defined for purposes of the Act as referring to approximately the last 11,000 years). A fault is considered well defined if its trace can be clearly identified by a trained geologist at the ground surface or in the shallow subsurface, using standard professional techniques, criteria, and judgment. The Act also provides criteria for designating known fault rupture zones, which are used in planning and engineering design of facilities such as the Proposed Project.

### *Seismic Hazards Mapping Act*

Like the Alquist-Priolo Earthquake Fault Zoning Act, the Seismic Hazards Mapping Act of 1990 (PRC Sections 2690-2699.6) is intended to reduce damage resulting from earthquakes. While the Alquist-Priolo Earthquake Fault Zoning Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including strong ground shaking,

liquefaction, and seismically induced landslides. Its provisions are similar in concept to the Alquist-Priolo Earthquake Fault Zoning Act in that the state is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards, and cities and counties are required to regulate development within mapped Seismic Hazard Zones. Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development. Specifically, cities and counties are prohibited from issuing development permits for sites within Seismic Hazard Zones until appropriate site specific geologic and/or geotechnical investigations have been carried out and measures to reduce potential damage have been incorporated into the development plans.

### *California Building Standards Code*

The California Building Standards Commission provides a minimum standard for building design with the California Building Code (CBC), which is based on the International Code Council but has been modified for California conditions. Chapter 23 of the CBC contains specific requirements for seismic safety. Chapter 29 of the CBC regulates excavation, foundations, and retaining walls. Chapter 33 of the CBC contains specific requirements pertaining to site demolition, excavation, and construction to protect people and property from hazards associated with excavation cave-ins and falling debris or construction materials. Chapter 70 of the CBC regulates grading activities, including drainage and erosion control. Construction activities are subject to occupational safety standards for excavation, shoring, and trenching, as specified in California Occupational Health and Safety Administration (California Code of Regulations [CCR] Title 8) and in Section A33 of the CBC.

### *California Public Resource Code Section 5097.5*

The California PRC states that a person shall not 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, rock art, or any other archaeological, paleontological, or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands.

### *California Public Utilities Commission General Order 128*

General Order 128 (GO 128) governs construction and operation of underground transmission lines associated with public utilities in the State of California. The stated purpose of GO 128 is to formulate uniform requirements for underground transmission lines to ensure adequate service and safety for all those involved in the construction and operation of underground transmission, as well as to the public in general. GO 128 was adopted in 1967 and has been amended multiple times.

## Local

The California Public Utility Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC GO 131-D, Section XIV.B, "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 the City and County regulations are not applicable as the City of San José and County of Santa Clara do not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section includes a summary of local geology, soils, and paleontological resources-related policies, plans, or programs for informational purposes. Although LS Power Grid California, LLC ("LS Power") is not subject to local discretionary permitting, ministerial permits would be secured as appropriate.

***County of Santa Clara General Plan***

The following policies are relevant to geology, soils, and paleontology (County of Santa Clara, 1994):

**Policy C-GD 6** Hazard and resource areas with the following characteristics shall be considered unsuited for urban development:
(B) seismic and geologic hazards;
(D) areas of soil creep, saturated soils, and areas where the water table is 3 feet or less below the surface; and
(E) prime agricultural soils.

The County of Santa Clara General Plan also identifies the most significant types of geologic hazards, or hazards of land instability, that affect the built environment as follows:

- Landslides, including rockslides and mudslides
- Expansive clays
- Peat and other highly organic soils
- Bay muds and saturated soils
- Soil creep
- Uncontrolled solid waste disposal sites

These phenomena have the potential to cause major damage to building foundations, roads, and utilities. Structural failures resulting from the stresses placed upon buildings may jeopardize both life and property. Soil creep, a less familiar form of land instability, describes the tendency of expansive soils to move slowly down hillsides at unequal rates depending on moisture content, depth to bedrock and other factors.

**Policy C-HS 28** Countywide strategies for reducing the threat of natural hazards to life and property should include:
(A) Inventory hazards and monitor changing conditions.
(B) Minimize the resident population within high hazard areas.
(C) Design, locate and regulate development to avoid or withstand hazards.
(D) Reduce the magnitude of the hazard, if feasible.
(E) Provide public information regarding natural hazards.

**Policy SC 15.13** Geotechnical investigations should be required on all projects in unstable areas, including areas of expansive soils, prior to construction to ensure that the potential hazards are identified and can be properly mitigated. A contract should be negotiated:
(A) With the State Department of Mines and Geology for completion of a study of the Santa Cruz Mountains from the southern county border to the

New Almaden area (approximate cost: $l0,000 per year for three years), and
(B) Between the Cities and a consulting geologist for the review of development projects in potentially hazardous areas (costs could be covered by a fee to developers).

***City of San José General Plan***

The following policies are relevant to geology, soils, and paleontology (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.

## 5.7.3 IMPACT QUESTIONS

### 5.7.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to geology, soils, and paleontological resources come from the California Environmental Quality Act (CEQA), Appendix G Environmental Checklist. According to the CEQA Environmental Checklist, a project may cause a potentially significant impact if it 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. Refer to Division of Mines and Geology Special Publication 42; or
    - Strong seismic ground shaking; or
    - Seismic-related ground failure, including liquefaction; or
    - Landslides; or
- Result in substantial soil erosion or the loss of topsoil; or
- 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; or
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property; or
- 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; or
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

#### 5.7.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing and Proponent's Environmental Assessments* (CPUC, 2019), there are no additional CEQA Impact Questions required for geology, soils, and paleontological resources.

### 5.7.4 IMPACT ANALYSIS

#### 5.7.4.1 Geology, Soils, and Paleontological Resources Impact Analysis

**Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**

**Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?**

**Less-Than-Significant Impact.** A project could directly or indirectly cause potential substantial adverse effects involving rupture of a known earthquake fault if the project includes activities that could induce seismicity (Wilson et al., 2017). Induced seismicity refers to seismic events (usually earthquakes) caused partially or completely by human (anthropogenic) activities. These activities can include impounding surface water reservoirs, erecting tall buildings, tunnel excavation, hydraulic fracturing (fracking), and removing mass from the surface by quarrying, as well as the subsurface extraction of resources, including groundwater, coal, hydrocarbons, and geothermal fluids. A project could also indirectly cause potential substantial adverse effects if a known

earthquake fault ruptures during construction or operational activities and results in loss, injury, or death to the workers.

As detailed in **Section 5.7.1**, *Environmental Setting*, the Proposed Project area is not located within a mapped Alquist-Priolo Earthquake Fault Zone. There are four active or potentially active faults within 10 miles of the Proposed Project area: Calaveras Fault Zone, Hayward Fault Zone, Sargent Fault Zone, and Monte Vista-Shannon Fault Zone. In addition, one inactive fault zone, Coyote Creek Fault Zone, intersects with the proposed Grove to Skyline 320 kV DC transmission line alignment.

As described in **Section 3.0**, *Proposed Project Description*, installation of the proposed underground transmission lines would be primarily conducted by open-cut trenching techniques, which include cutting the pavement with a wet saw or asphalt zipper and excavating with a backhoe or excavator. All underground transmission lines included within the Proposed Project would be designed and constructed in compliance with GO 128, which governs construction of underground transmission lines.

Geotechnical studies would provide geotechnical engineering recommendations for consideration in the final design relative to the local soil and rock conditions, groundwater conditions, and local seismic conditions and would evaluate any substantive risks identified from trenching through the inactive Coyote Creek Fault Zone (**Applicant Proposed Measure** [**APM**] **GEO-1**, *Geotechnical Studies and Geologic Hazard Reduction Measures*). Construction activities at the proposed high-voltage direct current (HVDC) terminal sites would involve typical excavation and structure installation activities. Therefore, these activities would be unlikely to have induced seismicity.

Construction of the Proposed Project would introduce construction workers to the area who would not otherwise be present. However, because of the short construction period and the low likelihood of an earthquake fault rupture occurring during that time, the potential for construction personnel to experience loss, injury, or death is considered low. In addition, if a seismic event were to occur during O&M, the risk of loss, injury, or death is considered low because the design and construction of the Proposed Project would adhere to all appropriate and applicable codes and seismic standards in order to withstand the maximum predicted ground motion, and the final design would consider any substantive risks identified by the geotechnical studies (**APM GEO-1**). Therefore, construction and O&M of the Proposed Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault. The impacts would be less than significant under this criterion.

**PG&E Facility Upgrades**

In order to integrate the proposed HVDC terminals and new Grove to Skyline 320 kV DC transmission line into the existing transmission system, Pacific Gas and Electric Company (PG&E) would be required to perform upgrades at two existing substations: modifications to the Metcalf substation and expansion of the San Jose B substation (refer to **Section 3.3.5**, *Other Potentially Required Facilities*). The substation upgrades would occur within and adjacent to the existing substation facilities. The PG&E facility upgrades would also include a new water line to the existing Metcalf substation, which would extend approximately 800 feet north-northeast from the Metcalf substation and connect to an existing 16-inch water main near the corner of Metcalf Road and Malech Road, which is served by the Great Oaks Water Company (GOWC). Construction on these upgrades would occur concurrently with construction of the remainder of the Proposed Project and for a limited duration. Geotechnical studies would be prepared for the

PG&E substation facilities and proposed water line to be submitted with final engineering plans. The geotechnical studies would evaluate soil conditions and provide geotechnical engineering recommendations relative to subsurface soil and rock conditions, groundwater conditions, lateral earth pressures, and seismic classifications of the Proposed Project area. Construction of the PG&E facility upgrades would adhere to all appropriate and applicable codes and seismic standards in order to withstand the maximum predicted ground motion, and the final design would consider any substantive risks identified by the geotechnical studies. Impacts would be less than significant.

**Strong seismic ground shaking?**

**Less-Than-Significant Impact**. Faults in surrounding areas could result in ground shaking within the Proposed Project area. However, as discussed in the response above, due to the short construction period, the low likelihood of an earthquake fault rupture occurring during that time, and the fact that the proposed HVDC terminal sites would be remotely operated, unless workers were present for maintenance during seismic activity, impacts to human life are not expected. All underground transmission lines included within the Proposed Project would be designed and constructed in compliance with GO 128, which governs construction of underground transmission lines. The Proposed Project facilities, including the underground Grove to Skyline 320 kV DC transmission line, the underground Metcalf to Grove 500 kV transmission line, and terminal facilities, would be engineered to withstand predicted ground shaking and would consider the relevant seismic requirements included in the geotechnical studies (**APM GEO-1**). The geotechnical studies would provide geotechnical engineering recommendations relative to the local soil and rock conditions, groundwater conditions, and local seismic conditions. These recommendations would be considered in the final design to mitigate any substantive risks related to strong seismic shaking. Therefore, the impacts would be less than significant under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Construction on these upgrades would occur concurrently with construction of the remainder of the Proposed Project and for a similarly limited duration. Construction of the PG&E facility upgrades would adhere to all appropriate and applicable codes and seismic standards in order to withstand the maximum predicted seismic ground shaking, and the final design would consider any substantive risks identified by the geotechnical studies. The upgrades to the existing substations and installation of the new water line would therefore not cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic shaking. Impacts would be less than significant.

**Seismic-related ground failure, including liquefaction?**

**Less-Than-Significant Impact.** The Proposed Project area sits within a large liquefaction zone. The Proposed Project would not involve the withdrawal of fluid from geologic materials. All underground transmission lines included within the Proposed Project would be designed and constructed in compliance with GO 128, which governs construction of underground transmission lines. Furthermore, the Proposed Project facilities would be engineered to consider the relevant geotechnical building code standards, as well as with consideration of the results presented in the geotechnical studies (**APM GEO-1**). The geotechnical studies would provide geotechnical

engineering recommendations relative to the local soil and rock conditions, groundwater conditions, and local seismic conditions. These recommendations would be considered in the final design to mitigate any substantive risks related to liquefaction. Therefore, the impacts would be less than significant under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Construction on these upgrades and new water line would occur concurrently with construction of the remainder of the Proposed Project and for a similarly limited duration. The upgrades to the existing substations and installation of the new water line would not cause potential substantial adverse effects, including the risk of loss, injury, or death involving ground failure, including liquefaction, as they would be constructed in accordance with applicable codes and building standards, and would consider recommendations from the geotechnical studies, as discussed above. Impacts would be less than significant.

**Landslides?**

**Less-Than-Significant Impact.** The Proposed Project area consists of gently sloping (zero to two percent) topography along the Santa Clara Valley floor, and the site is not located directly near any hills, mountains, or slopes. No landslides are anticipated to occur in or near the Proposed Project. In addition, construction activities would be conducted in accordance with all appropriate and applicable codes, as well as with consideration of the results presented in the geotechnical studies (**APM GEO-1**). The geotechnical studies would provide geotechnical engineering recommendations relative to the local soil and rock conditions, groundwater conditions, and local seismic conditions. Consideration of the geotechnical studies recommendations in the final Proposed Project design would ensure that slope stability factors are not altered in a way that would increase the area's susceptibility to landslides. This would help ensure that final design would consider any substantive risks. Therefore, less-than-significant impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Construction on these upgrades would occur concurrently with construction of the remainder of the Proposed Project and for a similarly limited duration. The upgrades to the existing substations and installation of the new water line would not cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides, as they would be constructed in accordance with applicable codes and building standards and would consider recommendations from the geotechnical studies, as discussed above. Impacts would be less than significant.

**Would the project result in substantial soil erosion or the loss of topsoil?**

**Less-Than-Significant Impact.** Soils within the Proposed Project area have moderate erosion potential. The Proposed Project would result in more than one acre of soil disturbance. As a result, the Proposed Project would be required to prepare and implement an SWPPP in accordance with the State's General Permit for Stormwater Discharges Associated with Construction Activities (Construction General Permit [CGP] 2009-009-DWQ, as amended). The SWPPP would include measures to limit erosion and off-site transport of pollutants from construction activities. The plan would designate BMPs that would be followed during construction to help stabilize disturbed areas and reduce erosion, sedimentation, and pollutant transport. All underground transmission lines included within the Proposed Project would be designed and constructed in compliance with GO 128, which governs construction of underground transmission lines. Geotechnical studies would be conducted (**APM GEO-1**) and would provide geotechnical engineering recommendations relative to the local soil and rock conditions, groundwater conditions, and local seismic conditions. While soil erosion or loss of topsoil could result from excavation or grading activities during construction of the Proposed Project, the implementation of the SWPPP and **APM GEO-1** would ensure that soil erosion and loss of topsoil would remain less than significant. Therefore, less-than-significant impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Construction of these upgrades would occur concurrently with construction of the remainder of the Proposed Project and for a similarly limited duration. The upgrades to the existing substations would not result in substantial soil erosion or the loss of topsoil, as the existing facilities are located on previously disturbed and developed sites. Construction of the new water line would require trenching, a horizontal directional drill (HDD) bore under U.S. Route 101, and related construction activities to extend a 10-inch water line from the Metcalf substation to the closest connection point, which is an existing 16-inch water main near the corner of Metcalf Road and Malech Road). The trench would be backfilled to the surface of the road or to existing grade when located outside of the road. Construction of the PG&E facility upgrades would be consistent with the Proposed Project SWPPP (or a separate SWPPP) and would implement PG&E **BMP HAZ-10***, Stormwater BMP Installation*. Therefore, the proposed PG&E facility upgrades are not anticipated to result in soil erosion or the loss of topsoil, and impacts would be less than significant.

**Would the project 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 Impact.** The potential for landslides and liquefaction-related impacts is analyzed above.

**Subsidence**

While the Proposed Project is located in an area of mapped subsidence, subsidence has been stabilized through ongoing groundwater recharge by the SCVWD and has been stable since the 1970s (SCVWD, 2023). The Proposed Project may involve dewatering if groundwater is encountered. All underground transmission lines included within the Proposed Project would be

designed and constructed in compliance with GO 128, which governs construction of underground transmission lines. Construction activities would be conducted in accordance with all appropriate and applicable codes, including CBC and GO 128, as well as with consideration of the results presented in the geotechnical studies (**APM GEO-1**). The geotechnical studies would provide geotechnical engineering recommendations relative to the local soil and rock conditions, groundwater conditions, and local seismic conditions. This would help ensure that final design of the Proposed Project would consider any substantive risks related to subsidence.

**Lateral Spreading**

Lateral spreading is a type of liquefaction-induced ground failure that occurs on gentle slopes or near free-faces, such as river channels. Resulting horizontal displacements can reach up to several meters and can be considerably damaging to foundations, bridges, roadways, and pipelines. The potential for lateral spreading at the Proposed Project site is low due to the absence of topographic features susceptible to lateral spreading. Construction activities would be conducted in accordance with all appropriate and applicable codes, including CBC and GO 128, as well as with consideration of the results presented in the geotechnical studies (**APM GEO-1**). The geotechnical studies would provide geotechnical engineering recommendations relative to the local soil and rock conditions, groundwater conditions, and local seismic conditions. This would help ensure that final design of the Proposed Project would consider any substantive risks related to lateral spreading.

**Soil Collapse**

Construction activities would be conducted in accordance with all appropriate and applicable codes including CBC and GO 128, as well as with consideration of the results presented in the geotechnical studies (**APM GEO-1**). The geotechnical studies would provide geotechnical engineering recommendations relative to the local soil and rock conditions, groundwater conditions, and local seismic conditions. This would help ensure that the final design of the Proposed Project would consider any substantive risks related to soil collapse.

Therefore, the Proposed Project would not cause a geologic unit to become unstable, resulting in on-site or off-site landslide, lateral spreading, liquefaction, subsidence, or collapse. Less-than-significant impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Construction on these upgrades would occur concurrently with construction of the remainder of the Proposed Project and for a similarly limited duration. Geotechnical studies would be conducted for the proposed facility upgrades and would provide geotechnical engineering recommendations relative to the local soil and rock conditions, groundwater conditions, and local seismic conditions. The final design for the PG&E facility upgrades and new water line would consider the recommendations of the geotechnical studies, which would mitigate applicable geologic hazards associated with soil collapse, lateral spreading, and subsidence. Impacts would be less than significant under this criterion.

**Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?**

**Less-Than-Significant Impact**. As discussed in **Section 5.7.1.4**, *Soils*, expansive soils are located within the Proposed Project area. Construction activities would be conducted in accordance with consideration of the results presented in the geotechnical studies (**APM GEO-1**). The geotechnical studies would provide geotechnical engineering recommendations relative to the local soil and rock conditions, groundwater conditions, and local seismic conditions. This would help ensure that final design of the Proposed Project would consider any substantive risks related to expansive soils. Further, all underground transmission lines included within the Proposed Project would be designed and constructed in compliance with GO 128, which governs construction of underground transmission lines. Less-than-significant impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, which are located within areas containing expansive soils. The proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Construction of these upgrades would occur concurrently with construction of the remainder of the Proposed Project and for a limited duration. Geotechnical studies would be conducted and would provide geotechnical engineering recommendations relative to the local soil conditions. The final design for the PG&E facility upgrades would consider the recommendations of the geotechnical studies, which would mitigate applicable geologic hazards associated with expansive soils. Impacts would be less than significant under this criterion.

**Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?**

**No Impact.** The Proposed Project would not include the use of septic tanks or alternative wastewater disposal systems. Therefore, no impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. These upgrades would not include the use of septic tanks or alternative wastewater disposal systems. Therefore, no impacts would occur under this criterion.

**Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

**Less-Than-Significant Impact.** Excavations within rocks of the Coast Range Ophiolite complex or artificial fill would not impact paleontological resources. The Holocene-age sedimentary deposits present at the surface of the Proposed Project area are assigned a low paleontological potential and likely transitions to Pleistocene-age alluvial deposits as shallow as seven feet bgs. Impacts to paleontological resources may occur during excavations that would disturb Pleistocene-aged alluvial deposits. Therefore, excavations extending less than seven feet deep in areas mapped as Holocene alluvial and fluvial deposits would be unlikely to impact

paleontological resources, while excavations extending greater than seven feet bgs in these areas would have the potential to impact paleontological resources. A Proposed Project-specific Paleontological Resources Mitigation and Monitoring Plan (PRMMP), as outlined in **APM PALEO-1**, *Paleontological Resources Mitigation Monitoring Plan* below, would be developed and implemented to reduce any potentially adverse impacts to paleontological resources through the recovery and conservation of any fossils that are unearthed during construction, consistent with California PRC Section 5097.5. **APM PALEO-2**, *Paleontological Resource Findings* would account for any inadvertent discoveries made when a paleontological monitor is not on-site. **APMs PALEO-1** and **PALEO-2** would be implemented to ensure that impacts under this criterion remain at less-than-significant levels.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Upgrades involving excavation activities, including trenching and an HDD for the new water line, would be addressed in a PRMMP developed for PG&E facilities prior to construction, and the Proposed Project would follow any recommendations provided in the PRMMP. Although not anticipated, PG&E **BMP PALEO-1**, *Unanticipated Paleontological Discoveries* would account for any inadvertent discoveries made during excavation activities at the existing PG&E substation sites. Less-than-significant impacts would occur under this criterion.

### 5.7.5 CPUC DRAFT ENVIRONMENTAL MEASURES

There are no CPUC Draft Environmental Measures suggested for geology, soils, and paleontological resources.

### 5.7.6 APPLICANT PROPOSED MEASURES

The following geology, soils, and paleontology-specific APMs would be implemented for the Proposed 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 Proposed Project and in approved construction work areas to reduce disturbance to topsoil;
- Geotechnical studies shall be completed to evaluate the risk of geologic hazards associated with the Proposed Project. The geotechnical studies shall provide geotechnical engineering recommendations relative to subsurface soil and rock conditions, groundwater conditions, lateral earth pressures, and seismic classifications of the Proposed 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 recontoured following construction to match preconstruction grades. Areas shall be allowed to revegetate naturally or be reseeded with a native seed mix from a local source if necessary. On-site material storage shall be sited and managed in accordance with all required permits and approvals; and
- Keep vegetation removal and soil disturbance to a minimum and limited to only the areas needed for construction. Removed vegetation shall be disposed of off-site to an appropriate licensed facility or can be chipped on-site to be used as mulch during restoration.

**APM PALEO-1: Paleontological Resources Mitigation Monitoring Plan**

Prior to the issuance of grading permits, a qualified paleontologist shall be retained to prepare and oversee the PRMMP for the Proposed 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., SDNHM, 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 Resource 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.

### 5.7.7 PG&E Best Management Practices

The following geology, soils, and paleontological resources-specific BMP would be implemented by PG&E for the activities to be completed by PG&E and/or their contractors. In addition, PG&E would implement **BMP HAZ-10**, as discussed in Section 5.9 Hazards and Public Safety.

**BMP PALEO-1: Unanticipated Paleontological Discoveries**

If significant paleontological resources are discovered during construction activities, work will stop within 50 feet, and the PG&E cultural 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. 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.

## 5.8 GREENHOUSE GAS EMISSIONS

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | | | X | |
| b. | Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | | | X | |

This section describes the greenhouse gas (GHG) emissions within the vicinity of the Proposed Project as well as potential impacts that could result from construction and operation and maintenance (O&M) of the Proposed Project.

### 5.8.1 ENVIRONMENTAL SETTING

The Proposed Project is in the City of San José and the County of Santa Clara and encompasses three zonal areas to include two new high-voltage direct current (HVDC) terminals and associated transmission lines between the existing Pacific Gas and Electric Company (PG&E) San Jose B substation and the existing PG&E Metcalf substation, which are separated by approximately 13 miles.

#### 5.8.1.1 GHG Setting

GHGs, such as water vapor and carbon dioxide, are abundant in the earth's atmosphere. These gases are called "Greenhouse Gases" because they absorb and emit thermal infrared radiation, which acts like an insulator to the planet. Without these gases, the earth's ambient temperature would either be extremely hot during the day or blistering cold at night. However, because these gases can both absorb and emit heat, the earth's temperature does not sway too far in either direction.

Over the years, scientists have measured a rise in carbon dioxide, and the general consensus is that human activities contribute to the heating of the planet. Other GHGs, such as methane and nitrous oxide, also contribute to global warming.

GHGs of concern are Carbon Dioxide ($CO_2$), Methane ($CH_4$), Nitrous Oxide ($N_2O$), and Sulfur Hexafluoride ($SF_6$). To simplify GHG calculations, $CH_4$, $N_2O$, and $SF_6$ are converted to equivalent amounts of $CO_2$ and are identified as carbon dioxide equivalent of metric tons (MT) of $CO_2e$. $CO_2e$ is calculated by multiplying the calculated levels of $CH_4$, $N_2O$, and $SF_6$ by a Global Warming Potential (GWP). The latest California Emissions Estimator Model (CalEEMod 2020.4.0) developed by Breeze Software uses the Intergovernmental Panel on Climate Change (IPCC) 2007 report as source data for GWP factors for both $CH_4$ and $N_2O$ (California Air Pollution Control Officers Association [CAPCOA], 2016), using the 100-year periods of 25, 298, and 22,800, respectively (IPCC, 2007).

The proposed HVDC terminals (the Skyline terminal and the Grove terminal) would convert alternating current (AC) to direct current (DC) or the reverse. To facilitate this conversion, each new HVDC terminal would include Voltage Source Converter HVDC equipment, an AC switchyard using gas-insulated switchgear (GIS) in a breaker-and-a-half (BAAH) configuration, and converter transformers including an on-site spare.

The GIS equipment located at both the proposed Skyline and Grove terminals would require a combined total of approximately 6,000 pounds of $SF_6$, which is a very strong GHG. Primary sources of GHG emissions resulting from the Proposed Project are anticipated from $SF_6$ leakage, energy consumption, and, to a much lesser extent, vehicular trips from O&M activities. Also, as part of the Proposed Project, PG&E would rebuild a large portion of the existing San Jose B substation. In doing so, PG&E would remove a number of existing $SF_6$ air-insulated circuit breakers and replace them with clean air GIS breakers. Clean air GIS does not contain a GHG for insulation but instead utilizes clean air as the insulation medium.

### 5.8.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 5.8.1.1 GHG Regulatory Setting

**Federal**

***Clean Air Act***

On April 2, 2007, in *Massachusetts v. Environmental Protection Agency (EPA)*, the Supreme Court directed the EPA Administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare. In making these decisions, the EPA Administrator is required to follow the language of Section 202(a) of the Federal Clean Air Act. On December 7, 2009, the EPA Administrator signed a final rule with two distinct findings regarding GHGs under Section 202(a) of the Clean Air Act:

- The Administrator found that elevated concentrations of GHGs—$CO_2$, $CH_4$, $N_2O$, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and $SF_6$—in the atmosphere threaten the public health and welfare of current and future generations. This is referred to as the "endangerment finding."

- The Administrator further found the combined emissions of GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is referred to as the "cause or contribute finding."

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the Clean Air Act.

**State**

***Executive Order (EO) S-3-05***

EO S-3-05 (June 2005) established the following Statewide goals: GHG emissions should be reduced to 2000 levels by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050.

***Assembly Bill (AB) 32 and California's Air Resources Board Climate Change Scoping Plan***

In furtherance of the goals established in EO S-3-05, the Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020.

Under AB 32, the California Air Resources Board (CARB) is responsible for and is recognized as having the expertise to carry out and develop the programs and regulations necessary to achieve the GHG emissions reduction mandate of AB 32. Therefore, in furtherance of AB 32, CARB adopted regulations requiring the reporting and verification of GHG emissions from specified sources, such as industrial facilities, fuel suppliers, and electricity importers (see Health & Safety Code Section 35830; Cal. Code Regs., tit. 17, §§95100 et seq.). CARB is also required to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 relatedly authorized CARB to adopt market-based compliance mechanisms to meet the specified requirements. Finally, at the state level, CARB will continue monitoring compliance and enforcing rules, regulation, emission limitations, emission reduction measures, or market-based compliance mechanisms adopted.

In 2007, CARB approved a limit on the Statewide GHG emissions level for the year 2020 consistent with the determined 1990 baseline (427 million metric tons [MMT] $CO_2e$). CARB's adoption of this limit is in accordance with Health and Safety Code Section 38550.

Further, in 2008, CARB adopted the *Climate Change Scoping Plan: A Framework for Change* ("*Scoping Plan"*) in accordance with Health and Safety Code Section 38561. The *Scoping Plan* established an overall framework for the measures that will be implemented to reduce California's GHG emissions for various emission sources/sectors to 1990 levels by 2020. The 2008 *Scoping Plan* evaluated opportunities for sector-specific reductions, integrated all CARB and Climate Action Team[1] early actions and additional GHG reduction features by both entities, identified additional measures to be pursued as regulations, and outlined the role of a cap-and-trade program. The key elements of the 2008 *Scoping Plan* include the following (CARB, 2008):

1. Expanding and strengthening existing energy efficiency programs as well as building and appliance standards.

2. Achieving a Statewide renewable energy mix of 33 percent.

3. Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85 percent of California's GHG emissions.

[1] The Climate Action Team is comprised of state agency secretaries and heads of state agencies, boards, and departments; these members work to coordinate Statewide efforts to implement GHG emissions reduction programs and adaptation programs.

4. Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets.

5. Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard.

6. Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation.

In the 2008 *Scoping Plan*, CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of approximately 28.5 percent from the otherwise projected 2020 emissions level, i.e., those emissions that would occur in 2020, absent GHG-reducing laws and regulations (referred to as "Business-As-Usual" [BAU]). For purposes of calculating this percent reduction, CARB assumed that all new electricity generation would be supplied by natural gas plants, no further regulatory action would impact vehicle fuel efficiency, and building energy efficiency codes would be held at 2005 standards.

In the 2011 Final Supplement to the *Scoping Plan's* Functional Equivalent Document, CARB revised its estimates of the projected 2020 emissions level in light of the economic recession and the availability of updated information about GHG reduction regulations (CARB, 2011). Based on the new economic data, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of 21.7 percent (down from 28.5 percent) from the BAU conditions. When the 2020 emissions level projection was updated to account for newly implemented regulatory measures, including Pavley I (model years 2009 to 2016) and the Renewables Portfolio Standard (12 percent to 20 percent), CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of 16 percent (down from 28.5 percent) from the BAU conditions.

In 2014, CARB adopted the *First Update to the Climate Change Scoping Plan: Building on the Framework* ("*First Update"*). The stated purpose of the *First Update* was to "highlight California's success to date in reducing its GHG emissions and lay the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050." The *First Update* found that California is on track to meet the 2020 emissions reduction mandate established by AB 32, and it also noted that California could reduce emissions further by 2030 to levels squarely in line with those needed to stay on track to reduce emissions to 80 percent below 1990 levels by 2050 if the State realizes the expected benefits of existing policy goals.

In conjunction with the *First Update*, CARB identified "six key focus areas comprising major components of the State's economy to evaluate and describe the larger transformative actions that will be needed to meet the State's more expansive emission reduction needs by 2050." Those six areas are: (1) energy; (2) transportation (vehicles/equipment, sustainable communities, housing, fuels, and infrastructure); (3) agriculture; (4) water; (5) waste management; and (6) natural and working lands. The *First Update* identified key recommended actions for each sector that will facilitate achievement of EO S-3-05's 2050 reduction goal.

Based on CARB's research efforts presented in the *First Update*, the update has a "strong sense of the mix of technologies needed to reduce emissions through 2050." Those technologies include

energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies.

As part of the *First Update*, CARB recalculated the State's 1990 emissions level using more recent global warming potentials identified by the IPCC. Using the recalculated 1990 emissions level (431 MMT $CO_2e$) and the revised 2020 emissions level projection identified in the 2011 Final Supplement, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of approximately 15 percent (instead of 28.5 percent or 16 percent) from the BAU conditions.

In November 2017, CARB released *California's 2017 Climate Change Scoping Plan* ("*Second Update"*) for public review and comment (CARB, 2017a). This update proposes CARB's strategy for achieving the State's 2030 GHG target as established in Senate Bill (SB) 32 (discussed below). The strategy includes continuing the Cap-and-Trade Program through 2030[2], inclusive policies and broad support for clean technologies, enhanced industrial efficiency and competitiveness, prioritization of transportation sustainability, continued leadership on clean energy, putting waste resources to beneficial use, supporting resilient agricultural and rural economics and natural and working lands, securing California's water supplies, and cleaning the air and public health.

When discussing project-level GHG emissions reduction actions and thresholds, the *Second Update* states "[a]chieving no additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development." However, the *Second Update* also recognizes that such an achievement "may not be feasible or appropriate for every project … and the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under [the California Environmental Quality Act] CEQA." CARB's Governing Board adopted the *Second Update* in December 2017.

***CARB's Climate Change Scoping Plan Update 2022***

In 2022 California released the latest scoping plan update which lays out the sector-by-sector roadmap for California to achieve carbon neutrality by 2045. This plan, addressing recent legislation and direction from Governor Newsom, extends and expands upon these earlier plans with a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045 (CARB, 2022a). The plan suggests that bold steps are required by the State and calls for the need of vast research and development with respect to methods of capturing $CO_2$. The plan calls for a need to take an unprecedented transformation and aggressively seek reductions to reduce the need of fossil fuels by moving to zero emission transportation, electrifying the cars, buses, trucks, and trains. The plan relies on external controls and requires partnership and collaboration with the Federal government, other U.S. states, and other jurisdictions around the world for California to succeed in achieving its climate targets.

The 2022 Scoping Plan includes key actions to support success in the necessary transition away from fossil combustion. Among the actions listed is decarbonizing the electricity sector, which depends on both using energy more efficiently and replacing fossil-fueled generation with renewable and zero carbon resources, including solar, wind, energy storage, geothermal,

2 In July 2017, AB 398 was enacted into law, thereby extending the legislatively authorized lifetime of the Cap-and-Trade Program to December 31, 2030.

biomass, and hydroelectric power. Another action includes expanding incentive programs to support the holistic retrofit of existing buildings. Buildings have cross-sector interactions that influence public health and well-being and affect energy use. There are about 14 million existing homes and over 7.5 billion square feet of existing commercial buildings in California. Fossil gas supplies about half of the energy consumed by end users in these buildings. In achieving carbon neutrality, transitioning away from fossil gas in existing residential and commercial buildings is an important action item.

***SB 32 and AB 197***

SB 32 and AB 197 (enacted in 2016) are companion bills that set a new Statewide GHG reduction target; made changes to CARB's membership and increase legislative oversight of CARB's climate change-based activities; and expand dissemination of GHG and other air quality-related emissions data to enhance transparency and accountability. More specifically, SB 32 codified the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that Statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly, in order to provide ongoing oversight over implementation of the State of California's climate policies.

AB 197 also added two members of the Legislature to CARB as nonvoting members. The legislation further requires CARB to make available and update (at least annually via its website) emissions data for GHGs, criteria air pollutants, and toxic air contaminants (TACs) from reporting facilities; and identify specific information for GHG emissions reduction measures when updating the scoping plan, including information regarding the range of projected GHG emissions and air pollution reductions that result from each measure and the cost-effectiveness (including avoided social costs) of each measure (see Health & Safety Code Section 38562.7).

***EO B-55-18***

In 2018, the Governor expanded upon EO S-3-05 by issuing EO B-55-18 and creating a Statewide goal of carbon neutrality by 2045. EO B-55-18 identifies CARB as the lead agency to develop a framework for implementation and progress tracking toward this goal. It should be noted that consistency with a Statewide carbon neutrality target by 2045 represents the Governor's policy goal but is not required to make a significance determination. The State of California has already determined that 80 percent below 1990 levels by 2050 is a long-term target that represents California's share of emissions reductions to stabilize and limit global warming and "avoid dangerous climate change". EO B-30-15 sets forth the 2050 target endorsed by the IPCC's findings and notes that the State's 2050 target would "attain a level of emissions necessary to avoid dangerous climate change" because it may limit global warming to two degrees Celsius by 2050.

***AB 1279***

In 2022, the Governor approved AB 1279 (State of California, 2022) which requires the State Board to prepare and approve a scoping plan for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions and to update the scoping plan at least once every five years. This bill, the California Climate Crisis Act, would declare the policy of the State both to achieve net zero GHG emissions as soon as possible, but no later than 2045, and achieve

and maintain net negative GHG emissions thereafter, and to ensure that by 2045, Statewide anthropogenic GHG emissions are reduced to at least 85 percent below the 1990 levels.

### *AB 1493*

In response to the transportation sector accounting for more than half of California's $CO_2$ emissions, AB 1493 was enacted in July 2002. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by CARB to be vehicles that are primarily used for noncommercial personal transportation in the State. The bill required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004 (CARB, 2017b).

### *SB 375*

SB 375 (2008) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 required CARB to adopt regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035. Regional metropolitan planning organizations (MPOs) are then responsible for preparing a Sustainable Communities Strategy (SCS) within their Regional Transportation Plan. The goal of the SCS is to establish a forecasted development pattern for the region that, after considering transportation measures and policies, would achieve, if feasible and if implemented, the GHG reduction targets. If a SCS is unable to achieve the GHG reduction target, an MPO must prepare an Alternative Planning Strategy demonstrating how the GHG reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

### *Advanced Clean Cars Program*

In January 2012, CARB approved the Advanced Clean Cars program, a new emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars (CARB, 2017c). To reduce GHG emissions, CARB, in conjunction with the EPA and the National Highway Traffic Safety Administration (NHTSA), also has adopted new GHG standards for model years 2017 to 2025 vehicles; the new standards are estimated to reduce GHG emissions by 34 percent in 2025 compared to 2017 (CARB, 2012).

The Zero Emission Vehicle (ZEV) Program acts as the focused technology of the Advanced Clean Cars Program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid electric vehicles (PHEVs) in the 2018 to 2025 model years (CARB, 2017c).

This program was recently updated and is known as the Advanced Clean Cars II Program ("ACC II"). The ACC II regulations will rapidly scale down emissions of light-duty passenger cars, pickup trucks, and SUVs starting with the 2026 model year through 2035. The regulations are two-pronged. First, it amends the ZEV regulation to require an increasing number of ZEVs, and relies on currently available advanced vehicle technologies, including battery-electric, hydrogen fuel cell electric, and PHEVs, to meet air quality and climate change emissions standards. Second, the Low-Emission Vehicle regulations were amended to include increasingly stringent standards for gasoline cars and heavier passenger trucks to continue to reduce smog-forming emissions (CARB, 2023a).

### *EO B-16-12*

EO B-16-12 (March 2012) directs state entities under the Governor's direction and control to support and facilitate development and distribution of ZEVs. This EO also sets a long-term target of reaching 1.5 million ZEVs on California's roadways by 2025. On a Statewide basis, EO B-16-12 also establishes a GHG emissions reduction target from the transportation sector equaling 80 percent less than 1990 levels by 2050. In furtherance of this EO, the Governor convened an Interagency Working Group on Zero-Emission Vehicles that has published multiple reports regarding the progress made on the penetration of ZEVs in the Statewide vehicle fleet. As of January 2018, the Governor has called for as many as 1.5 million ZEVs by 2025 and up to five million ZEVs by 2030 (Office of Governor Edmund G. Brown Jr., 2018).

### *EO N-79-20*

EO N-79-20 (September 2020) was signed by Governor Gavin Newsom in 2020, and it requires that 100 percent of new car sales in California be ZEVs by 2035. The plan targets 35 percent ZEV sales by 2026, 68 percent by 2030, and 100 percent by 2035 (CARB, 2023b).

### *AB 1236*

AB 1236 (2015), as enacted in California's Planning and Zoning Law, requires local land use jurisdictions to approve applications for the installation of electric vehicle charging stations, as defined, through the issuance of specified permits unless there is substantial evidence in the record that the proposed installation would have a specific, adverse impact upon the public health or safety, and there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact. The bill requires local land use jurisdictions with a population of 200,000 or more residents to adopt an ordinance, by September 30, 2016, that creates an expedited and streamlined permitting process for electric vehicle charging stations, as specified.

### *$SF_6$ Leakage Requirements*

In 2010, the CARB published final regulations for $SF_6$ and outlined requirements for equipment operational from 2011 to beyond 2020. The purpose of this regulation is to achieve GHG emission reductions by reducing $SF_6$ emissions from GIS. Based on the requirements, the allowable leakage rate in 2011 was 10 percent. The allowable leakage rate in 2020 and each calendar year thereafter is one percent or a 90 percent reduction (CARB, 2010) from the 2011 allowable rate. Per CARB's latest rules, $SF_6$ gas-insulated electronics (GIE) are to be phased out over time. CARB has developed Phase-Out Dates for GIE and shall not be purchased after these dates without exemptions further spelled out by CARB. The phase-out dates are identified in **Table 5.8-1**, *Phase-Out Dates for $SF_6$ GIE* (CARB, 2022b).

| Table 5.8-1: Phase-Out Dates for $SF_6$ GIE | | | |
|---|---|---|---|
| **Phase-Out Dates for $SF_6$ GIE with Voltage Capacity ≤ 38 kilovolt (kV)** | | | |
| Configuration | Voltage Capacity (kV) | Short-Circuit Current Rating (kV) | Phase-Out Date |
| Aboveground | < 38 | All | January 1, 2025 |
| | 38 | All | January 1, 2028 |
| Belowground | < 38 | < 25 | January 1, 2025 |
| | < 38 | > 25 | January 1, 2028 |
| **Phase-Out Dates for $SF_6$ GIE with Voltage Capacity > 38 kV** | | | |
| Configuration | Voltage Capacity (kV) | Short-Circuit Current Rating (kV) | Phase-Out Date |
| Any | 38 < kV ≤ 145 | < 63 | January 1, 2025 |
| | | ≥ 63 | January 1, 2028 |
| Any | 145 < kV ≤ 245 | < 63 | January 1, 2027 |
| | | ≥ 63 | January 1, 2031 |
| Any | >245 | All | January 1, 2033 |
| Source: CARB, 2022b | | | |

***SB 1078***

SB 1078 (2002) established the Renewables Portfolio Standard (RPS) program, which requires an annual increase in renewable generation by the utilities equivalent to at least one percent of sales, with an aggregate goal of 20 percent by 2017. This goal was subsequently accelerated, requiring utilities to obtain 20 percent of their power from renewable sources by 2010.

***SB X1 2***

SB X1 2 (2011) expanded the RPS by establishing that 20 percent of the total electricity sold to retail customers in California per year by December 31, 2013, and 33 percent by December 31, 2020, and in subsequent years be secured from qualifying renewable energy sources. Under the bill, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation of 30 megawatts or less, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and that meets other specified requirements with respect to its location. In addition to the retail sellers previously covered by the RPS, SB X1 2 added local, publicly owned electric utilities to the RPS.

***SB 350***

SB 350 (2015) further expanded the RPS by establishing that 50 percent of the total electricity sold to retail customers in California per year by December 31, 2030, be secured from qualifying renewable energy sources. In addition, SB 350 includes the goal to double the energy efficiency savings in electricity and natural gas final end uses (such as heating, cooling, lighting, or class of energy uses on which an energy-efficiency program is focused) of retail customers through energy conservation and efficiency.

### *SB 100*

SB 100 (2018) has further accelerated and expanded the RPS, requiring achievement of a 50 percent RPS by December 31, 2026, and a 60 percent RPS by December 31, 2030. SB 100 also established a new Statewide policy goal that calls for eligible renewable energy resources and zero-carbon resources to supply 100 percent of electricity retail sales and 100 percent of electricity procured to serve all State agencies by December 31, 2045.

## Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, "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" (2023). Consequently, public utilities are directed to consider local regulations and consult with local agencies, but City and County regulations are not applicable as the City of San José and the County of Santa Clara do not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section includes a summary of local GHG-related policies, plans, or regulations for informational purposes. Although LS Power Grid California, LLC ("LS Power") is not subject to local discretionary permitting, ministerial permits would be secured as appropriate.

The Proposed Project areas are located in both the City of San José and the County of Santa Clara, which are both located within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The BAAQMD recommends local jurisdictions develop Greenhouse Gas Reduction Strategies (GHGRS), which can be used for GHG emission reduction planning. The City of San José adopted a GHGRS, and the County of Santa Clara has not. The County of Santa Clara is in the process of developing one, identified as the Climate Roadmap 2035. At the time this report was written, the Climate Roadmap 2035 has not been adopted. However, the plans and draft concepts for each jurisdiction rely on BAAQMD's guidance as it relates to CEQA.

### *BAAQMD Project – Level Climate Impacts – 2022 CEQA Guidelines*

The BAAQMD recommends that lead agencies use a "fair share" approach for determining whether an individual project's GHG emissions would be cumulatively considerable. If the project is doing its "fair share" to implement California's plans to address the cumulative problem, its contribution can be treated as less than cumulatively considerable.

The BAAQMD has thresholds for both a land use project and stationary source type projects. When a project has GHG emissions associated with natural gas appliances or vehicle miles traveled (VMT), the land use thresholds would apply. However, if the project has GHG emissions from sources permitted by the BAAQMD, such as generators, boilers, or other relevant equipment, the GHG emissions from permitted sources would not be subject to the land use threshold of significance but instead would be subject to the stationary source thresholds. Many projects will require the use of both land use and stationary source thresholds (BAAQMD, 2022).

***Land Use Projects***

For a land use project to have a less-than-significant impact related to operational GHG emissions, it must include, at a minimum, the following project design elements:

1) Buildings

a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).

b. The project will not result in any wasteful, inefficient, or unnecessary energy use as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.

2) Transportation

a. The project will achieve a reduction in project-generated VMT below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target that reflects the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA:

    i. Residential projects: 15 percent below the existing VMT per capita

    ii. Office projects: 15 percent below the existing VMT per employee

    iii. Retail projects: no net increase in existing VMT

b. The project will achieve compliance with off-street electric vehicle requirements in the most recently adopted version of California Green Building Standards Code ("CALGreen") Tier 2.

If the project includes, at a minimum, these design elements, there would be a less-than-significant climate impact related to GHG emissions, and the project would not be likely to conflict with applicable initiatives to reduce GHG emissions.

Because construction emissions are temporary and variable, the BAAQMD has not developed a quantitative threshold of significance for construction-related GHG emissions. However, the lead agency should quantify and disclose GHG emissions that would occur during construction. The BAAQMD does suggest that projects should implement Best Management Practices (BMPs) to reduce GHG emissions, if necessary, which are presented in **Table 5.8-2**, *Best Management Practices for Construction-Related GHG Emissions.*

| Table 5.8-2: Best Management Practices for Construction-Related GHG Emissions |
|---|
| Use zero-emission and hybrid-powered equipment to the greatest extent possible, particularly if emissions are occurring near sensitive receptors or located within a BAAQMD-designated Community Air Risk Evaluation (CARE) area or AB 617 community. |
| Require all diesel-fueled off-road construction equipment be equipped with EPA Tier 4 Final compliant engines or better as a condition of contract. |
| Require all on-road heavy-duty trucks to be zero emissions or meet the most stringent emissions standard, such as model year (MY) 2024 to 2026, as a condition of contract. |
| Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to no more than two minutes (A 5-minute limit is required by the State airborne toxics control measure [Title 13, Sections 2449(d)(3) and 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site and develop an enforceable mechanism to monitor idling time to ensure compliance with this measure. |
| Prohibit off-road diesel-powered equipment from being in the "on" position for more than 10 hours per day. |
| Use CARB–approved renewable diesel fuel in off-road construction equipment and on-road trucks. |
| Use U.S. EPA SmartWay-certified trucks for deliveries and equipment transport. |
| Require that all construction equipment is maintained and properly tuned in accordance with manufacturer's specifications. Equipment should be checked by a certified mechanic and determined to be running in proper condition prior to operation. |
| Where grid power is available, prohibit portable diesel engines and provide electrical hook ups for electric construction tools, such as saws, drills, and compressors, and use electric tools whenever feasible. |
| Where grid power is not available, use alternative fuels, such as propane or solar electrical power, for generators at construction sites. |
| Encourage and provide carpools, shuttle vans, transit passes, and/or secure bicycle parking to construction workers and offer meal options on-site or shuttles to nearby meal destinations for construction employees. |
| Reduce electricity use in the construction office by using light emitting diode (LED) bulbs, powering off computers every day, and replacing heating and cooling units with more efficient ones. |
| Minimize energy used during site preparation by deconstructing existing structures to the greatest extent feasible. |
| Recycle or salvage nonhazardous construction and demolition debris, with a goal of recycling at least 15 percent more by weight than the diversion requirement in Title 24. |
| Use locally sourced or recycled materials for construction materials (goal of at least 20 percent based on costs for building materials and based on volume for roadway, parking lot, sidewalk, and curb materials). Wood products used should be certified through a sustainable forestry program. |
| Use low-carbon concrete, minimize the amount of concrete used, and produce concrete on-site if it is more efficient and lower emitting than transporting ready-mix. |
| Develop a plan to efficiently use water for adequate dust control since substantial amounts of energy can be consumed during the pumping of water. |
| Include all requirements in applicable bid documents, purchase orders, and contracts, with successful contractors demonstrating the ability to supply the compliant on- or off-road construction equipment for use prior to any ground-disturbing and construction activities. |

### *Stationary Sources of GHG Emissions*

The BAAQMD is responsible for issuing permits for the construction and operation of stationary sources to reduce air pollution and to attain and maintain the national and California ambient air quality standards in the Greater Bay Area. A stationary source consists of an emission source

with an identified emission point, such as a stack at a facility. It should include mobile sources that are associated with the stationary source, such as trucks, ships, and rail. Facilities can have multiple emission point sources located on-site. Major stationary sources typically associated with industrial processes, such as refineries and power plants (BAAQMD, 2022), would fit this category.

If GHG emissions for a stationary source are greater than 10,000 $MTCO_2e$ per year, the project would have significant impact related to GHG emissions. If emissions are less than 10,000 $MTCO_2e$ per year, the impact would be less than significant (BAAQMD, 2022).

**County of Santa Clara General Plan**

Section G of the Health Element of the County of Santa Clara General Plan addresses air quality and climate change (County of Santa Clara, 2015). This document includes several air quality-related policies that pertain to this Proposed Project located within the County:

**Policy HE-G.1** Air quality environmental review. Continue to utilize and comply with the Air District's project- and plan-level thresholds of significance for air pollutants and GHG emissions.

**Policy HE-G.2** Coordination with regional agencies. Coordinate with the Air District to promote and implement stationery and area source emission measures.

**Policy HE-G.3** Fleet upgrades. Promote Air District mobile source measures to reduce emissions by accelerating the replacement of older, dirtier vehicles and equipment, and by expanding the use of zero emission and plug-in vehicles.

**Policy HE-G.4** Off-road sources. Encourage mobile source emission reduction from off-road equipment such as construction, farming, lawn and garden, and recreational vehicles by retrofitting, retiring and replacing equipment and by using alternate fuel vehicles.

**Policy HE-G.7** Sensitive receptor uses. Promote measures to protect sensitive receptor uses, such as residential areas, schools, day care centers, recreational playfields and trails, and medical facilities by locating uses away from major roadways and stationary area sources of pollution, where possible, or incorporating feasible, effective mitigation.

**City of San José General Plan**

The City of San José's General Plan addresses climate change (City of San Jose, 2024). The General Plan sets guiding policies for minimizing impacts on resources and ensuring that the City is able to maintain the infrastructure and services necessary to sustain its economy and quality of life.

**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.

### 5.8.3 IMPACT QUESTIONS

#### 5.8.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to GHGs come from the CEQA, Appendix G Environmental Checklist. According to the CEQA Environmental Checklist, a project may cause a potentially significant impact if it would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

#### 5.8.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing Proponent's Environmental Assessments* (CPUC, 2019), there are no additional CEQA Impact Questions required for Greenhouse Gas Emissions.

### 5.8.4 IMPACT ANALYSIS

#### 5.8.4.1 GHG Impact Analysis

**Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

**Less-Than-Significant Impact.** The Proposed Project seeks to construct stationary electrical HVDC terminals, and the primary sources of GHG emissions would be attributed to $SF_6$ insulated switchgear and, to a lesser extent, vehicle trips associated with maintaining the terminals. The Proposed Project's estimated GHG emissions are analyzed based on stationary source recommendations provided in the 2022 CEQA Guidelines established by the BAAQMD (BAAQMD, 2022). Based on this guidance, if GHG emissions are less than 10,000 $MTCO_2e$ per year, the impact would be less than significant.

The Proposed Project would generate direct GHG emissions from the Proposed Project construction, $SF_6$ leakage from GIS, and vehicle emissions from maintenance activities which may be necessary on-site each year. In addition, the Proposed Project would generate indirect GHG emissions from electrical energy use on-site. The total demand at each proposed HVDC terminal location would be approximately 200 kilowatts (kW) continuous or 1,752,000 kilowatt hours (kWh) annually, and both HVDC terminals combined would consume 3,504,000 kWh annually.

For construction emissions, O&M activities, and operations energy usage, CalEEMod (version 2022.1) was used to model emissions. A specific model was created at each of the proposed HVDC terminal locations (Grove and Skyline) as well as a separate model for the proposed approximately 13 miles of underground transmission lines. GHG models for each of the areas are provided as Attachments 1A, 1B, and 1C of **Appendix 5.3-A**, *Air Quality and GHG Modeling Files*.

The Proposed Project plans to start construction in 2026, with work assumed to be scheduled to occur six days per week and be completed in 2028.

Construction emissions for all three areas were combined and were then amortized over 30 years based on the projected operational life of the Proposed Project.

Based on the preliminary Proposed Project design, the $SF_6$ volume on-site for the proposed HVDC terminal sites is expected to be approximately 6,000 pounds. The Proposed Project would be required to comply with CARB regulations regarding $SF_6$ leakage rates, which are limited to one percent per year or roughly 60 pounds of $SF_6$ annually.

**Construction**

***Emissions Modeling and Results***

The Proposed Project plans to start grading and construction in 2026, with work assumed to be scheduled to occur six days per week and be completed in 2028. Material hauling/truck details along with worker trips are provided in **Section 3.0**, *Proposed Project Description* (see **Table 3-6**, *Estimated Average Daily Construction Traffic)* and was manually updated within the CalEEMod software (refer to **Appendix 5.3-A**). **Appendix 5.3-A** includes detailed equipment and usage as provided by the Proposed Project engineer.

In addition, CARB regulations require that, starting in 2012, all off-road equipment produced needs to meet the basic requirements for Tier 4 compliance (CARB, 2023c). Off-road equipment fleets are managed by CARB and are typically based on total horsepower owned. Owners are limited to what types of equipment they must maintain as their fleet and can include equipment from rental companies. For this reason, it is assumed that the Proposed Project equipment would conservatively be made up of at least 75 percent Tier 4 during the construction years of 2026 through 2028 and would be achievable since most equipment operators already maintain fleets consisting of mostly Tier 4 equipment.

**Table 5.8-3**, *Expected Annual Construction $CO_2e$ Emissions* summarizes the construction emissions in metric tons per year for the total Proposed Project, which includes all construction discussed in **Section 3.0**. Emissions are amortized over a 30-year lifecycle, which would be modeled based on the worst-case scenario. Based on the modeling, the Proposed Project construction would generate 338.53 $MTCO_2e$ per year from construction. Based on BAAQMD Guidelines, construction thresholds do not exist, although to reduce GHG emissions due to construction, the Proposed Project may implement BMPs identified in **Table 5.8-2**.

**Table 5.8-3: Expected Annual Construction $CO_2e$ Emissions**

| Year | $CO_2e$ (MT/Year) |
|---|---|
| Skyline Terminal and San Jose B Substation 2026 | 1,490.00 |
| Skyline Terminal and San Jose B Substation 2027 | 724.00 |
| Skyline Terminal and San Jose B Substation 2028 | 78.40 |
| Grove Terminal and Metcalf Substation 2026 | 972.00 |
| Grove Terminal and Metcalf Substation 2027 | 376.00 |
| Grove Terminal and Metcalf Substation 2028 | 37.30 |
| Transmission Lines 2026 | 1,835.00 |

| Table 5.8-3: Expected Annual Construction $CO_2e$ Emissions | |
|---|---|
| **Year** | **$CO_2e$ (MT/Year)** |
| Transmission Lines 2027 | 3,960.00 |
| Transmission Lines 2028 | 683.00 |
| **Total** | **10,155.70** |
| **Yearly Average Construction Emissions (MT/year over 30 years)** | **338.53** |
| Expected construction emissions are based upon CalEEMod modeling assumptions (refer to **Appendix 5.3-A**) through years 2026 to 2028. | |

### Operations

Operations of the Proposed Project would begin once construction is completed in 2028. Operational emissions sources would include the consumption of energy on-site from HVDC cooling equipment and auxiliary equipment, such as control room heating, ventilation, and air conditioning (HVAC) units, communications equipment, and lighting. The total energy consumption from the Proposed Project would be 3,504,000 kWh annually and was modeled as such within CalEEMod.

Additional emissions during the Proposed Project operations would occur from mobile vehicle visits to the Proposed Project site associated with periodic O&M activities. It is estimated that monthly O&M visits would not be greater than 10,000 vehicle miles per year per site or 20,000 miles annually. These parameters were utilized for the GHG emission modeling (refer to Attachments 1A, 1B, and 1C of **Appendix 5.3-A**).

Finally, the Proposed Project would maintain a combined total of approximately 6,000 pounds of $SF_6$ for GIS. Based on CARB's older regulations, the allowable $SF_6$ leak rate for circuit breakers is limited to one percent or 60 pounds per year. The revised plans removed the leakage rate limitations but is still a design strategy. The new regulations require that new GIS after specific dates will not be allowed and would not generate GHGs. Given this, 60 pounds per year was used in this analysis. In addition, the GWP of 22,800 for $SF_6$ was also utilized.

Under this scenario, operational emissions would only be expected at the proposed Skyline and Grove terminals since the proposed transmission lines would not require significant maintenance activities and would not consume energy. Given this, the Proposed Project emissions would be expected to generate 1,293.04 $MTCO_2e$ per year (see **Table 5.8-4**, *Operational Emissions Summary MT/Year*). The Proposed Project scenario analyzed herein includes both annualized construction and operational emissions combined to reflect the total annual GHG emission produced by the Proposed Project.

Based on BAAQMD guidance, since the Proposed Project would generate less than 10,000 $MTCO_2e$ per year, the impact would be considered less than significant. BAAQMD does not have construction significance thresholds as it relates to GHG emissions, though such emissions were included in this analysis which represent the worst-case scenario. Impacts would be less than significant.

| Table 5.8-4: Operational Emissions Summary MT/Year | |
|---|---|
| **Site Locations** | **$CO_2e$ (MT/Year)** |
| Skyline Terminal Operations | 167.00 |
| Grove Terminal Operations | 167.00 |
| $SF_6$ Emissions (Total allowed one percent or 60 pounds per year) | 620.51 |
| Amortized Construction Emissions (Table 5.8-3 above) | 338.53 |
| **Total Construction and Operations (MT/Year)** | **1,293.04** |
| **Threshold** | **10,000** |
| **Exceeds Thresholds?** | ***NO*** |
| Data is in MT. Conversion rate is 1 pound = 0.000453592 MT.<br>GWP $SF_6$ = 22,800<br>Data is presented in decimal format and may have rounding errors. | |

**PG&E Facility Upgrades**

In order to integrate the proposed HVDC terminals and new Grove to Skyline 320 kV DC transmission line into the existing transmission system, PG&E would be required to perform upgrades at two existing substations: modifications to the Metcalf substation and expansion of the San Jose B substation (refer to **Section 3.3.5**, *Other Potentially Required Facilities*). The substation upgrades would occur within and adjacent to the existing substation facilities. The PG&E facility upgrades would also include a new water line to the existing Metcalf substation, which would extend approximately 800 feet north-northeast from the Metcalf substation and connect to an existing 16-inch water main near the corner of Metcalf Road and Malech Road, which is served by the Great Oaks Water Company. By the nature of GHG emissions and impact analysis, all Proposed Project activities are modeled as one action. As shown above, impacts from all Proposed Project actions, including the PG&E upgrades, are less than significant. Therefore, impacts associated with construction and operation of the PG&E facilities upgrades would be less than significant if considered individually.

**Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

**Less-Than-Significant Impact.** BAAQMD published the 2022 CEQA Guidelines so that cities and counties within the BAAQMD jurisdictional boundaries could point to significance thresholds as the basis for developing applicable plans, policies, and regulations. Since the Proposed Project would not exceed BAAQMD screening thresholds, the Proposed Project would not conflict with either the City of San José's or the County of Santa Clara's plans to reduce the emissions of GHGs.

Based on findings shown in **Table 5.8-4**, the Proposed Project would generate 1,293.04 $MTCO_2e$ per year. The BAAQMD significance threshold is 10,000 $MTCO_2e$ per year for projects of this type. Given this, GHG impacts from the Proposed Project would be considered less than significant under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Similar to the remainder of the Proposed Project elements, the PG&E facility upgrades would not conflict with either the City of San José's or the County of Santa Clara's plans to reduce the emissions of GHGs. Therefore, impacts associated with construction and operation of the PG&E facilities upgrades would be less than significant.

#### 5.8.4.2 Natural Gas Storage Accident Conditions

The Proposed Project does not involve the storage or transmission of natural gas. Therefore, no impact would occur.

#### 5.8.4.3 Monitoring and Contingency Plan

The Proposed Project does not involve the storage or transmission of natural gas. Therefore, no impact would occur.

### 5.8.5 CPUC Draft Environmental Measures

The CPUC includes one Draft Environmental Measure for GHG. However, the Proposed Project is not anticipated to result in potentially significant impacts relating to GHG. Therefore, the Draft Environmental Measure is not included as part of the Proposed Project.

### 5.8.6 Applicant Proposed Measures

No Applicant Proposed Measures for GHG emissions would be implemented for the Proposed Project.

### 5.8.7 PG&E Best Management Practices

No GHG Best Management Practices have been included for PG&E's scope of work.

## 5.9 HAZARDS, HAZARDOUS MATERIALS, AND PUBLIC SAFETY

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | | | X | |
| 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? | | | X | |
| c. | Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | | | X | |
| d. | Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | | | X | |
| e. | For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? | | | X | |
| f. | Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | | | X | |
| g. | Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? | | | | X |
| h. | Create a significant hazard to air traffic from the installation of new power lines and structures? | | | X | |
| i. | Create a significant hazard to the public or environment through the transport of heavy materials using helicopters? | | | | X |
| j. | Expose people to a significant risk of injury or death involving unexploded ordnance? | | | | X |

| | | | | | |
|---|---|---|---|---|---|
| k. | Expose workers or the public to excessive shock hazards? | | | X | |

This section describes the hazards, hazardous materials, and public safety within the vicinity of the Proposed Project as well as potential impacts that could result from construction and operation and maintenance (O&M) of the Proposed Project.

## 5.9.1 ENVIRONMENTAL SETTING

The Proposed Project has a gradual slope to the northwest toward the proposed Skyline terminal site. Geologic and hydrologic conditions in the Proposed Project are described in **Section 5.7**, *Geology, Soils*, and *Paleontological Resources* and **Section 5.10**, *Hydrology* and *Water Quality*, respectively. Proximity to schools is discussed in **Section 5.15**, *Public Services*. As described therein, the closest school to the proposed Skyline terminal is Hester School, located approximately 0.75 mile west of the terminal site. As the proposed alignment continues south, a number of schools are located within a 0.25-mile radius, as shown on **Figure 5.15-1**, *Public Service Facilities Map*. The closest school to the proposed Grove terminal is the Charter School of Morgan Hill, located approximately 0.6 mile southeast of the terminal site.

Based on a review of topographic maps, dating as early as 1917, the southern portion of the Proposed Project (i.e., the proposed Grove terminal) consisted of unimproved land that was identified as an orchard as early as 1939. The Proposed Project alignment moving north appears to be adjacent to a Southern Pacific Railroad right-of-way (ROW), later Union Pacific Railroad (UPRR), and within the ROW for Monterey Road moving north into the downtown San José area. The northern portion of the Proposed Project (i.e., the proposed Skyline terminal and the existing San Jose B substation) was historically used for railroad switching and maintenance, bulk oil and equipment storage, and metal salvaging among other industrial uses back to the earliest records in 1884.

The Proposed Project is located in a region with known encounters of naturally-occurring asbestos (NOA) (United States Geological Survey [USGS] 2011; California Geological Survey [CGS], 2011). Asbestos is a term used for a group of silicate minerals that occur as asbestiform fibers having high tensile strength, flexibility, and heat and chemical resistance, which present significant risks to human health when inhaled (California Department of Conservation [DOC], 2024). Asbestos is commonly found in ultramafic rock, which is present in the Proposed Project vicinity, and near fault zones. The USGS, CGS, and DOC have developed a map of ultramafic rock outcrops in California where NOA is likely to be present. Portions of the proposed Grove to Skyline 320 kilovolt (kV) direct current (DC) alignment on Monterey Road would overlap with areas with potential for NOA. As discussed further in this section, the California Air Resources Board (CARB) regulates asbestos emissions with two Airborne Toxic Control Measures (ATCMs) to minimize the release of asbestos fibers during activities involving the handling of asbestos.

### 5.9.1.1 Hazardous Materials Report

LS Power Grid California, LLC ("LS Power") ordered a third-party environmental database report for the Proposed Project area that was prepared by Environmental Risk Information Services (ERIS). The database is in compliance with Standard Practice E 1527-21 of ASTM International (ASTM) for Phase I Environmental Site Assessments (ESA). The ERIS database search included more than 70 federal, county, and state hazardous material data tracking sites that provide listings of sites with records of hazardous material handling or releases to the environment. The ERIS database report for the Proposed Project was reviewed to determine whether there are known

sites with past or ongoing hazardous material releases that could affect or be affected by the implementation of the Proposed Project. The ERIS report is included as **Appendix 5.9-A**, *Hazardous Material Database Search Report* and described further below.

In addition to the database resources reviewed therein, other potential site hazards and hazardous materials in the vicinity of the Proposed Project were evaluated through review of the following available resources:

- State Water Resources Control Board (SWRCB) GeoTracker database
- Department of Toxic Substances Control (DTSC) EnviroStor database
- California DOC Wellfinder

The ERIS report utilized search radii based on ASTM standards and ranged from within the Proposed Project area to one mile depending on the specific database, and over 4,500 total facilities were identified. Of the identified facilities, over 3,500 facilities are within approximately 0.25 mile of the Proposed Project area, and 438 facilities are within approximately 200 feet. **Appendix 5.9-A** provides details on all sites identified in the ERIS report. This analysis focuses on the 438 facilities within approximately 200 feet of the Proposed Project area, which are listed in **Appendix 5.9-B**, *Hazardous Materials Sites Summary Table*.

In order to determine which of the 438 facilities would have the potential to affect or be affected by implementation of the Proposed Project, the nature of the hazardous materials release, affected media and chemicals of concern, case status, and proximity to the Proposed Project area were considered. Many of the databases searched included facilities where the nature of environmental concern was not related to hazardous material storage, treatment, or releases. These databases were eliminated from further investigation since they do not identify hazardous material-related facilities. In addition, sites that have been granted closure or no further action by an oversight agency are typically not considered hazardous such that the Proposed Project could exacerbate an existing hazardous condition. Other facilities identified within 200 feet that were eliminated from further evaluation involved incidents related to small amounts of oil or other chemicals that were released to the surface or storm drain and were addressed at that time, were located downgradient or cross gradient from the Proposed Project area, or involved injured or deceased persons. Open (e.g., active and unremediated) sites, particularly those with groundwater impacts and located upgradient or adjacent to the Proposed Project area, pose the greatest risk because they have the potential to impact the shallow Proposed Project area soils. Therefore, of the 438 facilities, 11 fall within this criteria and are described further below. **Figure 5.9-1** identifies the location of these 11 facilities,[1] and **Table 5.9-1**, *Contaminated Sites* presents a summary of each site.

[1] The site locations identified on the map are approximate because the extent of contamination and/or the exact location of sites are not always available.

| Table 5.9-1: Contaminated Sites | | | | |
|---|---|---|---|---|
| **Number[1]** | **Site Name** | **Address** | **Distance from Proposed Project Area[2]** | **Status** |
| 1 | College Park Parcel 2 | APN 259-23-024 and APN 259-23-020 | 0 feet | Open – Site Assessment |
| 2 | North San Pedro Apartments | 201 Basset Street | 4 feet | Open – Verification Monitoring |
| 3 | San Jose Convention Center (South Hall) | 435 South Market Street | 22 feet | Open – Inactive |
| 4 | Gateway Tower | 470 South Market Street | 66 feet | Open – Site Assessment |
| 5 | Firestone Mixed Use Development | 477 South Market Street | 36 feet | Open – Site Assessment |
| 6 | Former Texaco Station | 598 South First Street | 57 feet | Open – Site Assessment |
| 7 | Garden Gate Tower | 600 South First Street | 151 feet | Open – Site Assessment |
| 8 | 802 South First Street Development | 802 South First Street | 109 feet | Open – Site Assessment |
| 9 | Downtown College Preparatory | 1402 Monterey Road | 74 feet | Open – Assessment & Interim Remedial Action |
| 10 | Sun Garden Packing Company | 1420-1600 Monterey Road | 4 feet | Open – Site Assessment |
| 11 | 1675 Monterey Road | 1675 Monterey Road | 47 feet | Open – Site Assessment |

Notes
[1] Numbers correspond to the labeled sites on Figure 5.9-1.
[2] The site locations identified on the map are approximate because the extent of contamination and/or the exact location of sites are not always available.

### College Park Parcel 2

The proposed Skyline terminal site is located on the College Park Parcel 2 site, which is identified as a Cleanup Program Site and currently has a Covenant and Environmental Restriction on Property ("Covenant") (Regional Water Quality Control Boards [RWQCB], 2017). Past environmental investigations conducted at the site identified several metals, petroleum hydrocarbons, polychlorinated biphenyls (PCBs), and semi-volatile organic compounds (SVOCs) in soil at concentrations exceeding their corresponding environmental screening levels (ESLs). The extent of potential chemical concerns in groundwater is limited to the southern portion of the site, and the chemicals consist of chlorinated volatile organic compounds (VOCs). The likely source of the VOCs in groundwater is part of the VOC plume associated with the former FMC Corporation facility, which is discussed further below. A soil vapor sampling investigation was conducted in 2015 and identified no soil vapor contaminants in the upper five feet.

The Covenant identifies that the only risk for future occupants is the potential exposure pathway of long-term dermal and ingestion of soil contaminants present above screening levels. The Covenant further identifies that the implementation of the approved Site Management Plan (SMP) would successfully mitigate potential risks from soil exposure during construction and long-term operations (ENGEO Incorporated, 2017). The SMP includes several precautionary procedures to minimize exposure.

The likely source of the VOCs in groundwater at the College Park Parcel 2 site is the former FMC Corporation facility and predecessor companies located at 333 West Julian Street, which is approximately 600 feet and potentially upgradient from the proposed site of the Skyline terminal. The FMC Corporation facility was active from the early 1900s through 1986 and used for manufacturing equipment such as agricultural machinery, food-processing equipment, and military tracked vehicles. Manufacturing operations ceased in 1986, and the facility was then leased for warehousing and other storage purposes. Offices and a parking garage are currently located in the area of the former facility. Previous site investigations have included soil vapor surveys, subsurface investigations, and active remediation. Remediation has included source removal of 4,300 cubic yards of soil and the installation of a soil vapor extraction system. A No Further Action (NFA) letter was issued for this facility in May 2020.

**North San Pedro Apartments**

The North San Pedro Apartments, 201 Bassett Street, are adjacent to the Proposed Project alignment. A review of the SWRCB GeoTracker database indicated that the County of Santa Clara Department of Environmental Health (DEH) is drafting a deed restriction as of February 2023. A Revised SMP has been completed and approved by the DEH in February 2023. The revised SMP Report includes a Risk Management Plan, which documents the requirements for long-term management of contamination which remains on this site. The contaminants of concern (COC) for this site include polyaromatic hydrocarbons (PAH), metals, and VOCs. A review of a Phase I ESA included a reference to a Phase II subsurface investigation that previously occurred on this property. The Phase II included a summary of soil borings that were conducted on the southern portion of this property, adjacent to Bassett Street. The summary identified arsenic and lead concentrations that were reported above the SWRCB ESLs.

**San Jose Convention Center (South Hall)**

The San Jose Convention Center, South Market Street, is located approximately 22 feet from the Proposed Project alignment. This site is a city block which consisted of multiple parcels and has been redeveloped into an annex of the San Jose Convention Center. The site contains a permanent tent structure. There is groundwater polluted with gasoline and diesel beneath a portion of the site. A Limited Phase II Investigation reported total petroleum hydrocarbons (TPH) and benzene above the ESLs in site groundwater. Groundwater was indicated at 12 to 16 feet bgs. The groundwater gradient was indicated to the south. The report indicated that, due to the TPH and benzene concentrations on the northern portion of this site in an upgradient direction, the reported contamination is from an upgradient source.

**Gateway Tower**

The Gateway Tower site, 470 South Market Street, is located approximately 66 feet from the Proposed Project alignment. A Limited Phase II Subsurface Investigation was conducted at this site, and soil borings were advanced across this site. Two of the borings were located on the

western portion of this site, approximately 35 feet from the Proposed Project alignment. One of these borings reported a phenol concentration slightly above the ESL at a depth of 15.5 feet. The second boring reported concentrations of all analytes below the ESLs. The phenol concentration is located in soils below the proposed depth of the excavation. Groundwater was reported at 16 feet bgs, and the COCs have been identified in this zone.

**The Firestone Mixed-Use Development**

The Firestone Mixed-Use Development, 477 South Market Street, is located approximately 36 feet from the Proposed Project alignment. The site has been under investigation since 1984 due to soil and groundwater contamination. Extensive removal and remediation efforts have been conducted, and, by 2022, the previously identified petroleum hydrocarbon, VOC, and heavy metals-impacted soil had been removed. Groundwater monitoring results indicate that contaminants are below screening levels, and off-site soil vapor results indicate that the concentrations of the COC, tetrachloroethylene (PCE), also did not exceed screening levels. Therefore, no further action has been requested. Groundwater depth at this site is between 10 and 11 feet bgs.

**Former Texaco Station**

Contamination resulting from a leaking underground storage tank (UST) at the former Texaco Station is located at 598 South First Street, approximately 57 feet from the Proposed Project alignment. A UST was removed in 1978, and contamination was first documented in 1993. Groundwater has reportedly been impacted with petroleum hydrocarbons on this property and potentially off-site. Based on prior investigations, there is the potential for a fuel tank to exist in the sidewalk of Reed Street, located adjacent to the south of this site. Groundwater monitoring has occurred at this site since 1994. Groundwater is reported to be between 10 and 14 feet bgs. The groundwater flow is listed to the north-northwest.

**Garden Gate Tower**

The Garden Gate Tower site, 600 South First Street, is located approximately 151 feet from the Proposed Project alignment. A Phase II Site Investigation reported TPH, VOCs, SVOCs, and metal concentrations above the ESL near the central portion of this site. One soil boring was located approximately 50 feet east of the Proposed Project and reported TPH above the ESL at a depth of 16 feet. This depth is also the depth to groundwater. Subsurface vapor and groundwater are likely impacted by petroleum hydrocarbons emanating from an off-site source located north of this site and identified as the Former Texaco Station property. The impacted soils associated with this facility appear to be at a depth that is near the groundwater table at approximately 16 feet bgs.

**802 South First Street Development**

The 802 South First Street Development site is located approximately 109 feet from the Proposed Project alignment. A Phase II Site Investigation reported lead concentrations above the ESL in samples obtained from the eastern portion of this site. This area is located greater than 200 feet east of the Proposed Project. In addition, soil borings advanced along the western portion of this site, closer to the Proposed Project, reported all analyte below the ESLs.

**Downtown College Preparatory**

Downtown College Preparatory, 1402 Monterey Road, is located approximately 74 feet from the Proposed Project alignment. A Phase I and II ESA Report reported metals and petroleum hydrocarbons in the soil samples at concentrations that exceed unrestricted use ESLs. According to the report, the COCs were reported in the upper two to four feet of the soil in an area identified as fill. It is not known if this fill material is associated with the construction of the on-site building.

**Sun Garden Packing Company**

Sun Garden Packing Company is located adjacent to the Proposed Project area. This approximately 20-acre property consists of several parcels with reported site addresses ranging from 1420 to 1600 Monterey Road in the City of San José. Three of the parcels have closed fuel leak cases. This site is listed as Open-Verification Monitoring. A review of a SMP Completion Report indicates that the COCs for this site have included metals and diesel associated with a former fueling station. Residual diesel has remained in the on-site soils and shallow groundwater. The SWRCB and DEH have indicated that the residual contamination does not pose a current risk to human health, safety, or the environment if the current SMP is implemented. If this material is disturbed, the DEH should be contacted. In addition, PCBs, arsenic, lead, and nickel have been detected in the soils of this site.

**1675 Monterey Road**

The 1675 Monterey Road site is located approximately 47 feet from the Proposed Project alignment. A Site Assessment Report documented elevated concentrations of VOCs and lead in some of the site borings. All of the soil borings were located within the building located on this site, which is located approximately 140 feet west of the Proposed Project.

**Grove Terminal**

The database search did not identify any facilities within 200 feet that meet the criteria and have the potential to impact the shallow soils in the Grove terminal area. The facilities that were present in the database searches were located downgradient or cross gradient to the proposed Grove terminal site, were closed sites, or had a lack of violations. In addition, a vapor encroachment screening evaluation was conducted at the proposed Grove terminal site, which found that no vapor encroachment condition is present from current or former on-site operations or from adjacent properties. However, the proposed site has been an operating orchard since at least 1939. Pesticides and herbicides have been used on this property, so there is potential for residual pesticides or herbicides within the soil.

### 5.9.1.2 Airport Land Use Plan

The Public Utilities Code of the State of California, Sections 21670 et seq. authorizes each county, including the County of Santa Clara, to establish an Airport Land Use Commission (ALUC) and defines its range of responsibilities, duties, and powers (County of Santa Clara, 2016). Section 21675 requires the ALUC to formulate and maintain a Comprehensive Land Use Plan (CLUP) for the area surrounding each public-use airport within the County of Santa Clara. The northern portion of the Proposed Project is located approximately one mile south of the San José Mineta International Airport. The CLUP for the San José Mineta International Airport was adopted on May 25, 2011, and amended November 16, 2016. This CLUP seeks to protect the public from the adverse effects of aircraft noise, to ensure that people and facilities are not concentrated in areas

susceptible to aircraft accidents, and to ensure that no structures or activities adversely affect navigable airspace. The implementation of this CLUP is intended to prevent future incompatible development from encroaching on the airport and allow for its development in accordance with the current airport master plan.

The CLUP establishes an airport land use planning area, referred to as the Airport Influence Area (AIA), which sets the boundaries for application of ALUC policy. The CLUP contains the relevant policies for land use compatibility and specific findings of compatibility or incompatibility of land uses within the AIA. All actions, regulations, and permits within the AIA must be evaluated by local agencies to determine how the CLUP policies may impact the proposed development. This evaluation is to determine that the development meets the conditions specified for height restrictions and noise and safety protection for the public. The Proposed Project is located within the San José Mineta International Airport AIA. Therefore, a discussion of the height restrictions and safety protection is provided below. A discussion of the noise restrictions is provided in **Section 5.13**, *Noise*.

Airport vicinity height limitations are required to protect the public safety, health, and welfare by ensuring that aircraft can safely fly in the airspace around an airport. This protects both those in the aircraft and those on the ground who could be injured in the event of an accident. In addition, height limitations are required to protect the operational capability of airports, thus preserving an important part of national and state aviation transportation systems. Federal Aviation Regulations (FAR) Part 77, Objects Affecting Navigable Airspace, establishes standards for the elevations above which structures may constitute a safety hazard. If a safety problem is found to exist, the Federal Aviation Administration (FAA), may issue a determination of a hazard to air navigation. FAA does not have the authority to prevent the encroachment; however, California law can prevent the encroachment if the FAA has made a determination of a hazard to air navigation. The local jurisdiction can establish and enforce height restrictions. The proposed Skyline terminal is located within a height limitation zone.

Airport Safety Zones are established to minimize the number of people exposed to potential aircraft accidents in the vicinity of the airport by imposing density and use limitations within these zones. The proposed Skyline terminal lies within the Outer Zone of the Airport Safety Zones. No aboveground bulk fuel storage is allowed within the Outer Zone, and storage of fuel or hazardous materials is not restricted but discouraged. There are several other use restrictions that apply to all safety zones, including the Outer Zone, such as prohibiting any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation, communication, or navigation equipment (County of Santa Clara, 2016).

#### 5.9.1.3 Fire Hazard

Fire hazards are discussed in **Section 5.20**, *Wildfire*.

#### 5.9.1.4 Metallic Objects

LS Power has conducted a preliminary desktop review and initial field surveys of existing utilities along the Proposed Project alignments and terminal sites, including metallic pipelines and cables. Based on this preliminary review, LS Power has identified the following types of potential utilities within 25 feet of the Proposed Project:

- Electric distribution;

- Electric transmission;
- Gas;
- Water;
- Sanitary sewer;
- Stormwater; and
- Telecommunication.

Of these utility lines, the electric, gas, and water utilities are typically partially or wholly metallic, while the sanitary sewer, stormwater, and telecommunication utilities are typically composed of materials such as concrete, clay, polyvinyl chloride (PVC), or high-density polyethylene (HDPE). However, many of the records reviewed to date did not indicate the material composition of the utility line.

In addition to the existing underground utilities, other metallic objects within the vicinity of Proposed Project features include metallic fences and barriers, including chain-link and barb wire fences, overhead distribution lines, and metallic roadway guard rails.

## 5.9.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

### 5.9.2.1 Hazards, Hazardous Materials, and Public Safety Regulatory Setting

**Federal**

***Resource Conservation and Recovery Act***

Under the Resource Conservation and Recovery Act (RCRA) of 1976 (RCRA; 42 USC section 6901 et seq.), individual states may implement their own hazardous waste programs in lieu of RCRA as long as the state program is at least as stringent as the Federal RCRA requirements (U.S. Environmental Protection Agency [USEPA], 2023). RCRA (42 USC section 6901 et seq.) regulates hazardous waste from the time that waste is generated until its final disposal through management, storage, transport, and treatment. The Federal government approved California's RCRA program, called the Hazardous Waste Control Law (HWCL), in 1992. In California, the RCRA program is administered by the California Environmental Protection Agency ("CalEPA") DTSC, per direction of the USEPA.

***Comprehensive Environmental Response, Compensation, and Liability Act***

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA; 42 USC Chapter 103) and associated Superfund Amendments provide the USEPA with the authority to identify hazardous sites, to require site remediation, and to recover the costs of site remediation from polluters (USEPA, 2021). CERCLA also enabled the revision of the National Oil and Hazardous Substances Pollution Contingency Plan, also known as the National Contingency Plan (NCP). The NCP provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants.

### *U.S. Department of Transportation Hazardous Materials Regulations*

The U.S. Department of Transportation (DOT) Hazardous Materials Regulations (Title 49 Code of Federal Regulations [CFR] Parts 100–172) cover all aspects of hazardous materials packaging, handling, and transportation (U.S. DOT, 2015).

## State

### *Cortese List*

California Government Code 65962.5 (commonly referred to as the Cortese List) includes hazardous waste facilities and sites listed by DTSC, Department of Health Services' lists of contaminated drinking water wells, sites listed by the SWRCB as having underground storage tank leaks or a discharge of hazardous wastes or materials into the water or groundwater, and lists from local regulatory agencies of sites with a known migration of hazardous waste/material.

### *Hazardous Waste Control Law*

The HWCL (California Health and Safety Code [HSC], Chapter 6.5 section 25100 et seq.) authorizes CalEPA's DTSC to regulate the generation, transportation, treatment, storage, and disposal of hazardous wastes (State of California, 2014). DTSC can also delegate enforcement responsibilities to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of HWCL.

### *Hazardous Substance Account Act*

The Hazardous Substance Account Act (HSAA) (California HSC, Chapter 6.8 section 25300 et seq.) is California's equivalent to CERCLA (State of California, 2015). It addresses hazardous waste sites and apportions liability for them. The HSAA also provides that owners are responsible for the cleanup of such sites and the removal of toxic substances, where possible.

The two State agencies with primary responsibility for enforcing federal and state regulations related to hazardous material transport and responding to hazardous materials transportation emergencies are the California Highway Patrol (CHP) and California Department of Transportation ("Caltrans"), respectively.

### *Occupational Health and Safety*

The California Division of Occupational Safety and Health Administration ("Cal/OSHA") assumes primary responsibility for developing and enforcing workplace safety regulations within the State (California Code of Regulations [CCR] Title 8). Cal/OSHA standards are more stringent than Federal Occupational Safety and Health Administration (OSHA) regulations and take precedence (California Department of Industrial Relations [DIR], 2023).

### *Hazardous Materials Management*

The California Office of Emergency Services (OES) is the State office responsible for establishing emergency response and spill notification plans related to hazardous materials accidents. CCR Title 26 is a compilation of the chapters or titles of the CCR that are applicable to hazardous materials management.

### *Porter-Cologne Water Quality Control Act*

As discussed in more detail in **Section 5.10**, the Porter-Cologne Water Quality Control Act ("Porter-Cologne") (California Water Code, Division 7) is the provision of the California Water Code that regulates water quality in California and authorizes the SWRCB and nine RWQCBs to implement and enforce the regulations. The RWQCBs regulate discharges under Porter-Cologne primarily through the issuance of waste discharge requirements. Anyone discharging or proposing to discharge materials that could affect water quality must file a report of waste discharge. The SWRCB and the RWQCBs can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. Porter-Cologne provides several means of enforcement, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecution. The Proposed Project area is under the jurisdiction of the San Francisco Bay RWQCB—Oakland Office (SWRCB, 2023).

### *Unified Hazardous Waste and Hazardous Materials Management Regulatory Program*

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program ("Unified Program") (CCR Title 27) was mandated by the State of California in 1993. The Unified Program was created to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities for six hazardous materials programs. The program has six elements:

- Hazardous Waste Generators and Hazardous Waste On-site Treatment;
- Underground Storage Tanks;
- Aboveground Petroleum Storage Act;
- Hazardous Materials Release Response Plans and Inventories;
- California Accidental Release Prevention; and
- Uniform Fire Code Hazardous Materials Management Plans and Hazardous Materials.

### *Inventory Statements*

At the local level, the provision of vital facility chemical and emergency response information to ensure emergency response preparedness is accomplished by identifying a Certified Unified Program Agency (CUPA) that coordinates all of these activities to streamline the process for local businesses.

### *Rules for Overhead Electric Line Construction*

Under Section 35 of General Order (GO) 95, the California Public Utilities Commission (CPUC) regulates all aspects of design, construction, and O&M of electrical power lines and fire safety hazards for utilities subject to their jurisdiction (CPUC, 1997, 2020).

### *Fire Prevention Standards for Electric Utilities*

The Fire Prevention Standards for Electric Utilities (CCR Title 14, sections 1250-1258) provide definitions, maps, specifications, and clearance standards for projects under the jurisdiction of California Public Resources Code (PRC) sections 4292 and 4293 in State Responsibility Areas.

### *California Fire Code*

The California Fire Code 2010 (CCR Title 24, Part 9) is based on the International Fire Code from the International Code Council and contains consensus standards related to establishing good practices to safeguard the public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new or existing buildings, structures, and premises (California Building Standards Commission [CBSC], 2019).

### *California Public Utilities Commission*

The CPUC's Utilities Safety and Reliability Branch of the Consumer Protection and Safety Division was established, in part, to oversee the safety of privately owned electric, communications, natural gas, and propane gas systems. It enforces CPUC rules and regulations, investigates and recommends ways to reduce utility-related accidents, and advises the CPUC on related matters. The CPUC has created a list of safety-related GOs to govern the construction and operation of power and communication lines subject to its jurisdiction.

### *California Department of Toxic Substances Control*

The California Hazardous Waste Control Act governs hazardous waste management and cleanup in the State (California HSC Chapter 6.5-6.98). The act mirrors RCRA and imposes a cradle-to-grave regulatory system for handling hazardous waste in a manner that protects human health and the environment. It requires all businesses to report the quantity and locations of hazardous materials on an annual basis if the business stores (1) more than 55 gallons of a liquid or 500 pounds of a solid hazardous material, (2) more than 200 cubic feet of a compressed gas, or (3) a radioactive material that is handled in quantities for which an emergency plan is required. Businesses falling within these limits must prepare a Hazardous Material Business Plan (HMBP), which includes spill prevention, containment, emergency response measures, and a contingency plan. Implementation of the Hazardous Waste Control Act is the responsibility of the DTSC.

### *CARB ATCM for NOA*

CARB and the USEPA have identified asbestos as a toxic air contaminant (TAC) and hazardous air pollutant, respectively. Asbestos is a term used for several types of naturally-occurring fibrous minerals found in many parts of California. Asbestos is commonly found in ultramafic rock, which is present in the Proposed Project vicinity and near fault zones. When rock containing asbestos is broken or crushed, asbestos fibers may be released and become airborne. Sources of asbestos emissions include unpaved roads or driveways surfaced with ultramafic rock, construction activities in ultramafic rock deposits, or rock quarrying activities where ultramafic rock is present. Asbestos emissions present a significant risk to human health on a Statewide and local level (CARB, 2024).

CARB identified asbestos as a TAC in 1986. Subsequently, CARB has adopted two ATCMs to address the health concerns associated with exposure to asbestos and minimize the release of asbestos fibers during activities involving the handling of asbestos:

- **ATCM for Surfacing Applications (adopted in 1990).** This ATCM is designed to reduce public exposure to elevated levels of asbestos from unpaved surfaces such as unpaved roads, parking lots, driveways, and walkways.

- **ATCM for Construction, Grading, Quarrying, and Surface Mining Operations (adopted in 2001).** This ATCM requires the implementation of best available dust mitigation measures at road construction, maintenance activities, construction, grading, quarrying, and surface mining operations in areas where NOA is found or likely to be found.

The USEPA requires specific work practices to control the release of asbestos fibers relating to a renovation and/or demolition activity. In California, the USEPA delegates enforcement authority to CARB for renovation and/or demolition activities that involve the handling of asbestos.

### Local

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC GO 131-D, Section XIV.B, "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 the City of San José and the County of Santa Clara do not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section includes a summary of local hazards, hazardous materials, and public safety-related policies, plans, or programs for informational purposes. Although LS Power is not subject to local discretionary permitting, ministerial permits would be secured as appropriate.

#### *County of Santa Clara Emergency Operations Plan*

The County of Santa Clara OES coordinates the development and maintenance of the County of Santa Clara Emergency Operations Plan (EOP). This plan serves as an all-hazard plan that describes how the County of Santa Clara would organize and respond to emergencies and disasters in the community. The purpose of this plan is to ensure that the County is prepared for a disaster through coordination of protection, prevention, mitigation, response, and recovery activities that increase the County's capabilities to minimize loss of life and reduce impacts (County of Santa Clara, 2022). The plan also describes how various agencies and organizations in the County would coordinate resources and activities with other federal, state, local, Tribal, community organizations, faith-based organizations, and private-sector partners (County of Santa Clara, 2023). During disasters, these interagency communications would contain situation reports, damage assessments, declarations of emergency, mutual aid requests, and disaster cost reimbursement application procedures and coordination. There are a number of separately

published annexes that support the EOP. These supporting annexes further describe the hazard-specific or functional response that detail considerations, actions, and responsibilities for identified County departments or other County agencies.

### *County of Santa Clara Hazardous Materials Compliance Division*

The Hazardous Materials Compliance Division (HMCD) was established in 1983 with the adoption of the local Hazardous Materials Storage Ordinance (HMSO), which regulates the storage of hazardous materials both above and below ground. This ordinance, the first of its kind in the state, has several key provisions that, when implemented by businesses, provides protection of public health and the environment. In addition to the HMSO, HMCD enforces the County's Toxic Gas Ordinance and Non-Point Source ("Urban Runoff") Ordinance. Passage of Senate Bill 1082 in 1993 required consolidation of State-mandated hazardous waste and hazardous materials management programs within a single Unified Program, to be administered by CUPA. The County of Santa Clara Hazardous Materials Compliance Division is the CUPA for hazardous waste and hazardous management programs in the Proposed Project region.

### *County of Santa Clara Operational Area Hazard Mitigation Plan*

The County of Santa Clara and a partnership of local governments, including the City of San José, have developed a hazard mitigation plan to reduce risks from natural disasters in the Santa Clara County Operational Area—defined as the unincorporated County and incorporated jurisdictions within the geographical boundaries of the County (County of Santa Clara, 2017). The Hazard Mitigation Plan describes how various agencies and organizations in the County would coordinate resources and activities with other federal, state, local, Tribal, community organizations, faith-based organizations, and private-sector partners. During disasters, these interagency communications would contain situation reports, damage assessments, declarations of emergency, mutual aid requests, and disaster cost reimbursement application procedures and coordination. There are a number of separately published annexes that support the Hazard Mitigation Plan. These supporting annexes further describe the hazard-specific or functional response that detail considerations, actions, and responsibilities for identified County departments or other agencies.

### *County of Santa Clara General Plan*

The following County of Santa Clara policies are relevant to hazards, hazardous materials, and public safety (County of Santa Clara, 1994).

**Policy C-HS 14** All feasible measures to safely and effectively manage hazardous materials and site hazardous materials treatment facilities should be used, including complying with all Federal and State mandates.

**Policy C-HS 15** To achieve a more effective, efficient and economical regulatory environment, all feasible means to simplify and coordinate locally implemented hazardous materials management regulations should be considered.

**Policy C-HS 20** All proposals to site a hazardous waste facility shall be compatible with neighboring land uses and be consistent with the permitting jurisdiction's General Plan and the Countywide Hazardous Waste Management Plan.

**Policy C-HS 33** Development in areas of natural hazards should be designed, located, and otherwise regulated to reduce associated risks, by regulating the type, density, and placement of development where it will not:
a. be directly jeopardized by hazards;
b. increase hazard potential; and
c. increase risks to neighboring properties.

**Policy C-HS 35** Information about the prevalence and threats of natural hazards shall be provided to the public to maintain general awareness and support for governmental actions needed to improve public safety.

***City of San José General Plan***

The following City of San José policies are relevant to hazards, hazardous materials, and public safety (City of San José, 2024).

**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-6.5** 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 for 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.

**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.

***City of San José Emergency Operations Plan***

The City of San José EOP (2019a) provides an overview of the City's approach to emergency operations. It identifies emergency response policies, describes the response and recovery organization, and assigns specific roles and responsibilities to City departments, agencies, and community partners, and describes logistical support and the integration of assistance. The EOP also describes the role of the City of San José's Emergency Operations Center (EOC) and the coordination that occurs between the EOC, Department Operations Centers, those conducting field-level activities, and external entities such as the Operational Area, community partners, City residents, and visitors. The EOP is a broad programmatic document applicable to all hazards or

threats and all the missions/functions the City may perform in response to or recovery from an incident.

To provide planning support to the EOP, the City has developed Support Annexes for each of the critical functions the City must manage, coordinate, and/or perform following an emergency. A Support Annex is a function- or incident-specific application of the guidance, policies, and concepts defined in the EOP. The Evacuation Support Annex describes the overall process of conducting mass evacuations and re-entry during an emergency or large-scale disaster in the City of San José (2019b). In the City of San José, evacuation is the responsibility of the San José Police Department, with significant support from many other departments. The Evacuation Support Annex identifies a number of considerations, including that the primary means of transportation during an evacuation will be privately owned and operated vehicles. Specific evacuation routes are not identified.

#### 5.9.2.2 Touch Thresholds

OSHA standards cover many electrical hazards. OSHA's general industry electrical safety standards are published in Title 29 CFR, Part 1910.302 through 1910.308 – Design Safety Standards for Electrical Systems, and 1910.331 through 1910.335 – Electrical Safety-Related Work Practices Standards (National Archives and Records Administration Office of the Federal Register [NARA OFR], 2021). OSHA's electrical standards are based on the National Fire Protection Association (NFPA) codes and standards: NFPA 70 – National Electrical Code and NFPA 70E – Standard for Electrical Safety in the Workplace (NFPA, 2021).

The Proposed Project would be designed to all applicable standards and regulations that would provide for adequate horizontal and vertical clearances from electrical and energized equipment. All authorized personnel working on-site, during either construction or O&M, would be trained according to OSHA, NFPA, and LS Power standards. To minimize potential exposure of the public to electric shock hazards, a wall would extend around the perimeter of each proposed terminal, thus fully restricting site access to only qualified personnel (refer to **Section 3.5.8.3**, *Security* for additional details pertaining to high-voltage direct current [HVDC] terminal site security). Warning signs would be posted to alert persons of potential electrical hazards. All electric power lines would be designed in accordance with CPUC GO 95 Guidelines for clearances established to protect the public from electric shock. Additional details on the safety and security procedures for construction and operation are included in **Section 3.0**, *Proposed Project Description*.

### 5.9.3 IMPACT QUESTIONS

#### 5.9.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to hazards, hazardous materials, and public safety come from the California Environmental Quality Act (CEQA), Appendix G Environmental Checklist. According to the CEQA Environmental Checklist, a project may cause a potentially significant impact if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; or

- 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; or

- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; or

- 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; or

- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area; or

- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or

- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

#### 5.9.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing and Proponent's Environmental Assessments* (CPUC, 2019), the following additional CEQA Impact Questions are required for hazards, hazardous materials, and public safety. Would the project:

- Create a significant hazard to air traffic from the installation of new power lines and structures?

- Create a significant hazard to the public or environment through the transport of heavy materials using helicopters?

- Expose people to a significant risk of injury or death involving unexploded ordnance?

- Expose workers or the public to excessive shock hazards?

### 5.9.4 IMPACT ANALYSIS

#### 5.9.4.1 Hazards, Hazardous Materials, and Public Safety Impact Analysis

**Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

**Less-Than-Significant Impact.** Construction of the Proposed Project would require the routine use of construction equipment that would use or contain hazardous materials, including, but not limited to, diesel fuel, gasoline, lubrication oil, hydraulic fluid, antifreeze, transmission fluid, lubricating grease, and cement slurry. Equipment containing or transporting these materials would

regularly travel throughout the Proposed Project area and region during construction periods.. Additionally, the Proposed Project would include transformers containing mineral oil, which is considered a hazardous material in the State of California. All major terminal equipment (e.g., Voltage Source Converter [VSC] HVDC equipment, gas-insulated switchgear [GIS], power transformers, cooling equipment, etc.) would be installed on concrete foundations. Each transformer would have an oil containment system consisting of an impervious, lined, open, or stone-filled sump area around the transformer. The maximum amount of oil required for the transformers would be approximately 25,000 gallons for each of the transformers. Transformer oil containment basins are designed to contain the oil volume of the transformers plus a 25-year, 24-hour storm event.

The routine use of construction equipment that would use or contain hazardous materials, and the installation of equipment containing hazardous materials, could result in accidental releases that may affect the public or environment (e.g., contamination of soils, surface water and/or groundwater quality impairment, and floral/faunal toxicity effects). The Proposed Project site is located in a populated area where on-site spills or releases, from accident conditions or natural disasters, have the potential for direct contact and impacts to the general public. In addition, off-site transport of released materials in contaminated soils, surface waters, and/or groundwater has the potential to result in impacts. On-site releases also have the potential to impact workers and the environment through direct contact. Additionally, the improper disposal of hazardous waste on- or off-site may impact the public, workers, and/or the environment. The potential for off-site material transport to impact surface and groundwater resources is discussed in **Section 5.10**. **Table 5.9-2**, *Summary of Hazardous Materials* provides the type and approximate quantity of potentially hazardous materials that would be transported, used, or disposed of during implementation of the Proposed Project.

**Table 5.9-2: Summary of Hazardous Materials**

| Utility | Hazardous Material | Project Use | Approximate Quantity |
|---|---|---|---|
| LS Power | Mineral oil | Insulating and cooling transformers | 25,000 gallons for each transformer, 200,000 gallons total |
| LS Power, PG&E[1] | Gasoline | Engine fuel | 24,181 gallons |
| LS Power, PG&E[1] | Diesel | Engine fuel | 835,707 gallons |
| LS Power | Lead-acid batteries | Backup power during power outages | TBD |
| LS Power | Hydraulic fluids and lubricants | Engine and equipment lubrication, powering hydraulic equipment | TBD |
| LS Power | Other construction fluids (solvents) | Cleaning, lubricating hardware, etc. | TBD |
| LS Power | Ethylene glycol | Converter cooling systems | 5,000 gallons for each terminal[2] |

Notes:
[1] Diesel and gasoline quantities represent the anticipated total use for the Proposed Project and the PG&E facility upgrades.
[2] 5,000 gallons represents a mixture of ethylene glycol and water. Exact ration is pending additional system design.

All hazardous materials would be stored, handled, and used in accordance with applicable regulations. Based on the anticipated volume of hazardous liquid materials, such as transformer oil, that would be stored at Proposed Project locations, a Spill Prevention, Control, and Countermeasure Plan (SPCCP) is included as **Applicant Proposed Measure (APM) HAZ-1**, *Site-Specific Spill Prevention, Control, and Countermeasure Plan* and would be prepared to comply with Title 40 CFR, Parts 112.1-112.7. This plan would ensure the proper storage of hazardous liquids and require that the Proposed Project area be equipped with secondary containment that meets SPCC Guidelines. In addition, a Hazardous Materials Management Plan (HMMP) would also be required as part of **APM HAZ-2**, *Hazardous Materials Management Plan* and would include the proper use of hazardous materials, transport, storage, management, and disposal protocols during construction. Sufficient planning and site preparation, proper use and disposal of hazardous materials, and documented measures to immediately address exposure of these materials would reduce the risk of hazards to the public and the environment during construction of the Proposed Project. For these reasons, any impacts resulting from the routine transport, use, or disposal of hazardous materials would be less than significant.

The Proposed Project would include design specifications (such as the transformer containment system, which is discussed in **Section 3.3.4.1**, *HVDC Terminal Facilities*) and O&M procedures designed to minimize the potential for the release or improper disposal of hazardous materials during Proposed Project operation. Each transformer would be designed to include secondary containment that would capture the accidental release of hazardous materials. Maintenance activities would occur regularly at the Proposed Project facilities. These activities may include use of new pollutant sources, including, but not limited to, oils, paints, and solvents used for routine maintenance. All materials used during O&M would be applied, stored, and disposed of consistent with manufacturer recommendations by licensed professionals and in accordance with applicable regulations. Operational impacts of the Proposed Project would be less than significant; implementation of standard operational Best Management Practices (BMPs) consistent with **APMs HAZ-1** and **HAZ-2** would further ensure impacts remain less than significant.

**PG&E Facility Upgrades**

In order to integrate the proposed HVDC terminals and new Grove to Skyline 320 kV DC transmission line into the existing transmission system, Pacific Gas and Electric Company (PG&E) would be required to perform upgrades at two existing substations: modifications to the Metcalf substation and expansion of the San Jose B substation (refer to **Section 3.3.5**, *Other Potentially Required Facilities*). These upgrades would occur within and adjacent to the existing substation facilities. The PG&E facility upgrades would also include a new water line to the existing Metcalf substation, which would extend approximately 800 feet north-northeast from the Metcalf substation and connect to a 16-inch water main near the corner of Metcalf Road and Malech Road, which is served by the Great Oaks Water Company.

Project construction will require the limited use of hazardous materials such as fuels, lubricants, cleaning solvents, and chemicals. Only small volumes of hazardous waste will be generated, generally from empty fuel, lubricant, and solvent containers. Additional potential hazardous waste sources during construction include incidental spill waste and concrete washout. A low potential exists for the encounter of contaminated soil or groundwater during excavation and other ground-disturbing activities. Should excavation of hazardous materials be necessary, disposal will be carried out in compliance with applicable regulations. Waste generated or encountered will be handled, contained, and disposed of according to local, state, and federal regulations. **Table 5.9-**

**3**, *PG&E Summary of Hazardous Materials Disposal* provides the type and approximate quantity of potentially hazardous materials that would be disposed of during implementation of the Proposed Project.

**Table 5.9-3: PG&E Summary of Hazardous Materials Disposal**

| Utility | Hazardous Material | Project Use | Approximate Quantity |
|---|---|---|---|
| PG&E | Treated wood poles | Removal and disposal | Approximately 4 poles |
| PG&E | Mineral Oil | Removal and disposal | 100 gallons |
| PG&E | Lead-acid batteries | Removal and disposal | 6,780 pounds (lbs) of lead-calcium alloy |
| | | | 120 gallons of electrolyte |

The Proposed Project would include the removal of approximately four existing PG&E distribution wood poles, which may have been treated with chemicals (e.g., penta oil, creosote, chemonite, and/or chromated copper, depending on the year of installation), which for certain uses and quantities can be considered regulated hazardous materials. Therefore, disposal of the wood poles would require specific testing and handling procedures prescribed by state and federal regulations. LS Power would dispose of utility generated waste, including treated wood waste generated from removal of the PG&E distribution poles, under the Hazardous Waste Fee Health and Safety Code (California HSC Chapter 6.5, Section 25143 et seq.). Under this exemption, the wood waste would be disposed of in a composite-lined portion of a municipal solid waste landfill that meets requirements imposed by the State policy adopted pursuant to Section 13140 of the Water Code and regulations adopted pursuant to Sections 13172 and 13173 of the Water Code. Further, the solid waste landfill used for disposal would be authorized to accept the wood waste under waste discharge requirements issued by the RWQCB pursuant to Division 7 (commencing with Section 13000) of the Water Code. As discussed in **Section 5.19**, *Utilities*, the Kirby Canyon Landfill, Newby Island Landfill, Guadalupe Landfill, and Ox Mountain Landfill are all treated wood waste disposal sites in the County of Santa Clara Construction and operational activities supporting these upgrades would be subject to PG&E construction **Best Management Practices (BMPs) HAZ-1** through **HAZ-12**, as well as applicable federal, state, and local regulations that direct proper transport, use, and disposal of hazardous materials. The PG&E hazardous materials BMPs are designed to address the specific hazardous materials, wastes, and conditions present at the PG&E Metcalf and San Jose B substations. These include oil filled transformers (**BMP HAZ-1**), lead-acid batteries (**BMP HAZ-4**), lead paint (**BMP HAZ-5**), $SF_6$ (**BMP HAZ-6**), hazardous waste management (**BMPs HAZ-2** and **HAZ-3**), spill prevention, control, and countermeasures (**BMP HAZ-7**), underground cable handling (**BMP HAZ-8**), stormwater (**BMP HAZ-10**), and dewatering (**BMPs HAZ-9** and **HAZ-11**). Finally, PG&E work on the Skyline terminal site would be required to comply with the SMP by **BMP HAZ-12**. As such, less-than-significant impacts would occur.

**Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

**Less-Than-Significant Impact.** The release of hazardous materials into the environment could occur if hazardous materials used during construction or O&M were spilled or otherwise released accidentally or if construction activities exposed existing contamination. Release of hazardous

materials during construction and O&M are discussed in the response above; therefore, this analysis focuses on existing contamination and provides a discussion of reasonably foreseeable upset and accident response. Construction activities that have the potential to expose existing contamination include ground disturbing activities, such as excavation for structure foundations or trenching for the proposed underground transmission lines. Exposure of existing contamination would create a hazard to the public and the environment by putting construction workers at risk and spreading the contamination to other locations.

As discussed in **Section 5.9.1**, *Environmental Setting*, the Proposed Project is located in a region with known encounters of NOA (USGS CGS, 2011). CARB and the USEPA have identified asbestos as a TAC and hazardous air pollutant, respectively. Portions of the proposed Grove to Skyline 320 kV DC transmission line alignment on Monterey Road would cross areas with an outcropping of ultramafic rock, indicative of potential NOA, particularly in the center portion of the transmission line in the vicinity of Staging Area 6. There is also an outcropping of ultramafic rock west of the existing PG&E Metcalf substation and the proposed transmission line corridor on Monterey Road that is adjacent to but does not overlap the site. As required by **APM AQ-3**, Proposed Project construction that occurs below ground, including grading, trenching, and boring, would be conducted in compliance with the CARB Asbestos ATCM, which requires the implementation of best available dust mitigation measures at road construction, maintenance activities, construction, grading, quarrying, and surface mining operations in areas where NOA is found or likely to be found. Therefore, Proposed Project impacts related to the release of NOA would be less than significant.

As detailed in **Section 5.9.1.1**, *Hazardous Materials Report*, there are 11 documented facilities within 200 feet of the Proposed Project where existing contamination of soil or groundwater is present and has the potential to be encountered during construction of the Proposed Project (refer to **Figure 5.9-1**). These are discussed further below. O&M activities associated with the Proposed Project would not result in impacts related to existing contamination. The proposed HVDC terminal sites would be unmanned, and the finished ground cover and other structures would consist primarily of impervious surfaces, thus eliminating the risk pathways for soil.

***College Park Parcel 2 Site***

Contaminated soil and groundwater have been identified at the proposed Skyline terminal site, which is located within the College Park Parcel 2 site. Excavation may reach groundwater in this location, although documented groundwater contamination occurs only along the southern border of the proposed Skyline terminal site, and no soil vapor contaminants have been identified in the upper five feet. As shown in **Figure 3-7**, *HVDC Terminal General Arrangements,* the major terminal facility equipment (which would more likely require deeper excavation such as drilled pier foundations) is located on the northern half of the site. Therefore, while contaminated groundwater is not anticipated to be encountered during construction, it cannot be ruled out. Contaminated groundwater, if not properly handled or disposed, could create a hazard to workers and the environment. Excavation and other ground disturbing activities associated with construction at the proposed Skyline terminal have the potential to encounter contaminated soils, which would expose construction workers to metals, petroleum hydrocarbons, PCBs, and SVOCs. Therefore, the identified risk at the site is the potential exposure pathway of long-term dermal and ingestion of soil contaminants present above screening levels, which could occur to construction workers during ground disturbing construction activities.

However, **APM HAZ-3**, *Skyline Terminal Soil and Groundwater Contamination Management* would be implemented, which requires compliance with the approved SMP that was prepared for this site as part of the Covenant. Measures identified in the SMP include requiring soils excavated for construction purposes be stockpiled and sampled and excess soil be transported for appropriate off-site disposal or reused on-site under hardscape. **APM HAZ-3** also requires testing of groundwater encountered during construction at the proposed Skyline terminal site. Any contaminated groundwater is required to be handled, transported, and disposed of according to law. Compliance with the **APM HAZ-3** would reduce human health risk to acceptable levels; therefore, construction at the proposed Skyline terminal would not create a significant hazard to the public or the environment, and impacts would be less than significant.

***North San Pedro Apartments***

Since the Proposed Project alignment is located adjacent to the North San Pedro Apartments, it is possible that soils with arsenic and lead could be encountered during excavation activities. However, **APM HAZ-4**, *Soil Management Plan* would be implemented, which requires the preparation of a Soil Management Plan for construction of the Proposed Project and would include a requirement to sample the soil within the Proposed Project footprint (i.e., final trenchline) in order to determine if arsenic or lead is present above ESLs. If contaminated soils are present, the Soil Management Plan would include measures of handling and disposing of these soils properly, in accordance with applicable regulations.

***San Jose Convention Center (South Hall)***

Groundwater beneath the portion of the Proposed Project area near this site may have TPH and benzene above the ESLs. However, the groundwater is anticipated to be located beneath the proposed depth of construction and, therefore, would not be impacted. The human health risk assessment completed at the San Jose Convention Center (South Hall) site also concluded that there would not be significant health effects to construction workers from soil vapor. In addition, elevated lead concentrations that were identified in the soils at the San Jose Convention Center (South Hall) site are located in the central portion of this site, which is a sufficient distance from the Proposed Project and would not likely impact the shallow soils within the Proposed Project alignment. However, **APM HAZ-4** would be implemented, which requires the preparation of a Soil Management Plan for construction of the Proposed Project to further reduce potential impacts related to contaminated soils.

***Gateway Tower***

Potentially contaminated soils within the Proposed Project area as a result of the Gateway Tower site are located beneath the proposed depth of construction and, therefore, would not be impacted. However, **APM HAZ-4** would be implemented, which requires the preparation of a Soil Management Plan for construction of the Proposed Project to further reduce potential impacts related to contaminated soils.

***The Firestone Mixed-Use Development***

The Firestone Mixed-Use Development site is located adjacent to South Market Street, where the proposed underground Grove to Skyline 320 kV DC transmission line would be installed. While soil and groundwater contamination has been removed and remediated to below screening levels

at the site, there is the potential for contaminants to exist in soil and groundwater within the Proposed Project area. However, **APM HAZ-4** would be implemented, which requires the preparation of a Soil Management Plan for construction of the Proposed Project and would determine if contaminants are still present. If contaminated soils are present, the Soil Management Plan would outline measures that would be implemented for the safe handling and disposal of contaminated soils in accordance with applicable regulations.

***Former Texaco Station***

Since this site is located close to the Proposed Project and groundwater is listed near the base of the Proposed Project construction depth, the potential for encountering petroleum hydrocarbon impacted soils and groundwater is possible. However, **APM HAZ-4** would be implemented, which requires the preparation of a Soil Management Plan for construction of the Proposed Project and would determine if contaminants are still present. If contaminated soils are present, the Soil Management Plan would include measures of handling and disposing of these soils properly, in accordance with applicable regulations.

***Garden Gate Tower***

Site investigations at the Garden Gate Tower have identified contaminated soils at a depth that is near the groundwater table at approximately 16 feet bgs. Construction of the Proposed Project in this area would not extend beyond 10 feet and, therefore, is unlikely to reach the contaminated soils. In addition, **APM HAZ-4** would be implemented to further reduce potential impacts related to contaminated soils.

***802 South First Street Development***

Based on the location of identified soil contamination associated with the 802 South First Street Development site, it is unlikely that soil contamination is within the Proposed Project area near this site. In addition, **APM HAZ-4** would be implemented to further reduce potential impacts related to contaminated soils.

***Downtown College Preparatory***

Based on the location of the Proposed Project to this fill material, potential contaminants within the fill may be encountered during the Proposed Project construction activities. However, **APM HAZ-4** would be implemented, which requires the preparation of a Soil Management Plan for construction of the Proposed Project and would determine if contaminants are present. If contaminated soils are present, the Soil Management Plan would include measures of handling and disposing of these soils properly, in accordance with applicable regulations.

***Sun Garden Packing Company***

Since this site is listed as open and is located adjacent to the Proposed Project alignment, the potential to disturb impacted soils is possible. However, **APM HAZ-4** would be implemented, which requires the preparation of a Soil Management Plan for construction of the Proposed Project and would determine if contaminants are present. If contaminated soils are present, the Soil Management Plan would include measures of handling and disposing of these soils properly, in accordance with applicable regulations.

### *1675 Monterey Road*

Based on the location of identified soil contamination associated with the 1675 Monterey Road site, it is unlikely that soil contamination is within the Proposed Project area near this site. In addition, **APM HAZ-4** would be implemented to further reduce potential impacts related to contaminated soils.

### *Grove Terminal*

The southern portion of the Proposed Project at the Grove terminal is the location of an existing orchard that has existed since at least 1939. Pesticides and herbicides are currently being used on this property and likely were historically as well. While contaminated soils may be present within the Proposed Project area, implementation of **APM HAZ-4** would ensure that the soil is tested before construction begins and handled and disposed of properly. Therefore, construction of the Proposed Project would not result in the exposure of existing contamination that could put construction workers at risk or the contamination to other locations. As such, the Proposed Project would not 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.

### *Reasonably Foreseeable Accident or Upset Conditions*

Construction of the Proposed Project would include mechanisms intended to protect the public from accidents or failure of Project components. Shoring would be installed at trenching and excavation sites, and the public would not be permitted near construction activities through the use of fencing, barriers, signage, and/or traffic control. After construction of the Proposed Project is complete, LS Power would implement O&M procedures addressing the potential release of hazardous materials in upset or accident conditions. Crews would be informed of hazardous material handling practices and accidental release containment and cleanup procedures. These procedures would be developed to protect the public, O&M personnel, and the environment from hazardous materials by equipping O&M personnel with knowledge and procedures to follow to prevent accidents and failures or minimize potential impacts of an accident or failure. As a result, impacts associated with creating 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 from operation of the Proposed Project would be less than significant.

Further, the Proposed Project is designed and maintained to withstand degrees of failure within portions of the system. Crews monitor and operate the system with controls in place to proactively identify potential issues and minimize the hazard exposure to the public from failure of Proposed Project components as the result of an accident. The proposed HVDC terminals would be remotely monitored by LS Power's control center during O&M, which is staffed 24 hours a day, seven days a week and is capable of handling and processing millions of data points during operations. If equipment malfunctions, O&M personnel would be dispatched to the site to investigate the problem and take appropriate corrective action. Regular maintenance and inspection by LS Power crews further reduces the likelihood and severity of failures. The risk of significant hazard to the public or the environment caused by a system accident or failure would be less than significant.

Any O&M work would also be conducted in accordance with National Electric Safety Code (NESC), National Electrical Code (NEC), OSHA, and other applicable regulations and standards. The new transmission lines would also follow all applicable CPUC GOs; particularly GO 128, which governs the construction and maintenance of underground electric lines. LS Power would also comply with CAISO standards for inspection, maintenance, repair, and replacement. Less-than-significant impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Construction and operational activities supporting the upgrades to the two existing PG&E substation facilities would be subject to PG&E **BMPs HAZ-1** through **HAZ-12**, which include measures to handle existing contamination safely, including requiring soil sampling and removal, if necessary, in order to reduce the potential for accidental release of hazardous materials. Regarding the potential to encounter NOA, PG&E would implement PG&E **BMP AQ-2**, *Asbestos*, as described further in **Section 5.3**, *Air Quality*. PG&E **BMP AQ-2** requires that PG&E follow its Utility Procedure: ENV-1002P-02 for construction and grading activities at the existing Metcalf substation to ensure compliance with applicable State of California regulations including the CARB Asbestos ATCM. PG&E would obtain permits from the air district prior to start of work. As such, less-than-significant impacts would occur.

**Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

**Less-Than-Significant Impact.** As detailed in **Section 5.15** and shown on **Figure 5.15-1**, the closest school to the proposed Skyline terminal is Hester School, located approximately 0.75 mile west of the terminal site. As the proposed alignment continues south, a number of schools are located within a 0.25-mile radius, as shown on **Figure 5.15-1**. The closest school to the proposed Grove terminal is the Charter School of Morgan Hill, located approximately 0.6 mile southeast of the terminal site. . There are no schools within 0.25 mile of the two HVDC terminal sites. Potentially hazardous air emissions related to construction equipment are discussed in **Section 5.3**. As discussed in the response above and in **Section 3.0**, construction of the Proposed Project would include the handling of common hazardous materials, substances, or waste, such as fuels, oils, and lubricants. The Proposed Project would include the emission or handling of acutely hazardous materials. However, with the implementation of **APMs HAZ-1** through **HAZ-4**, as well as adherence with existing federal, state, and local regulations, these materials, substances, and waste would be transported, handled, and disposed of in a manner that minimizes the potential to impact workers or the public. Therefore, while the Proposed Project would handle hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school, these activities would not pose a risk to the children and staff at the three schools. Less-than-significant impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. There are no schools within 0.25 mile of the existing PG&E substations. The nearest schools are located more than 0.5 mile from the existing PG&E substations, at approximately 0.8 mile east and west of the San Jose B substation, and 1.1 mile

west of the Metcalf substation. Construction and operational activities supporting the upgrades to the two existing PG&E substation facilities would be subject to PG&E **BMPs HAZ-1** through **HAZ-12**, which include measures to properly use, store, transport, and dispose of hazardous materials in order to reduce the potential for public exposure to hazardous materials. As such, less-than-significant impacts would occur.

**Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and, as a result, would it create a significant hazard to the public or the environment?**

**Less-Than-Significant Impact.** As discussed in **Section 5.9.2**, *Regulatory Setting*, the lists compiled pursuant to Government Code Section 65962.5 (or the Cortese List) include a variety of hazardous waste facilities and contaminated sites. A significant hazard to the public or environment could occur if existing contamination at one of these sites was released or exposed. While the Proposed Project area is near 11 documented hazardous materials sites, the proposed Skyline terminal is the only project component that would be located on a Cortese List site. As discussed in the response above, while contaminated soils may be present within the Proposed Project area, implementation of **APMs HAZ-2**, **HAZ-3**, and **HAZ-4** would ensure that the soil is tested before construction begins and handled and disposed of properly. Therefore, construction of the Proposed Project would not result in the exposure or release of existing contamination. As such, while the Proposed Project area would be located on sites compiled pursuant to Government Code Section 65962.5, implementation of the Proposed Project would not create a significant hazard to the public or the environment. Less-than-significant impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. The PG&E facilities are not located on the Cortese List (refer to **Figure 5.9-1**). The nearest designated hazardous waste site per Government Code Section 65962.5 to the PG&E substations is located at the proposed Skyline terminal, adjacent to the existing San Jose B substation. Contaminated soil and groundwater have been identified at the proposed Skyline terminal site, which is located within the College Park Parcel 2 site and overlaps with the proposed San Jose B expansion area. Excavation may reach groundwater in this location, although documented groundwater contamination occurs only along the southern border of the proposed Skyline terminal site, and no soil vapor contaminants have been identified in the upper five feet. Excavation and other ground disturbing activities associated with construction at the proposed Skyline terminal have the potential to encounter contaminated soils, which would expose construction workers to metals, petroleum hydrocarbons, PCBs, and SVOCs. However, PG&E would implement **PG&E BMP HAZ-12,** *Skyline Terminal Site SMP*, which requires compliance with the approved SMP that was prepared for this site as part of the Covenant. Measures identified in the SMP include requiring soils excavated for construction purposes be stockpiled and sampled and excess soil be transported for appropriate off-site disposal or reused on-site under hardscape. Compliance with the **PG&E BMP HAZ-12** would reduce human health risk to acceptable levels; therefore, construction of the proposed San Jose B substation upgrades would not create a significant hazard to the public or the environment Construction and operational activities supporting the upgrades to the two existing substation facilities would also be subject to PG&E **BMPs HAZ-1** through **HAZ-12**, which include measures to properly use, store, transport, and dispose of hazardous materials in order to reduce the potential for public or

environmental exposure to hazardous materials. As such, less-than-significant impacts would occur.

**For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?**

**Less-Than-Significant Impact.** The Proposed Project site is located within two miles of the San José Mineta International Airport, including within the AIA. Noise-related impacts are discussed in **Section 5.13**. The Proposed Project would be constructed in an urban area that already has a high density of people, vehicles, and buildings which are currently subjected to the environment within two miles of an airport. The Proposed Project would not include helicopters during construction and operation, so it would not exacerbate existing conditions in this regard. The tallest structures within the proposed Skyline terminal site would be the approximately 100-foot-tall lightning shielding masts. In addition, LS Power would coordinate with the FAA to ensure the cranes used during construction and height of permanent structures would not result in a safety hazard.

The proposed Skyline terminal is also compatible with the limitations of the Outer Zone of the Airport Safety Zones, which restrict uses for residential development, regional shopping centers, theaters, meeting halls, stadiums, schools, large day care centers, hospitals, nursing homes, or similar activities. The transformers located at the proposed Skyline terminal and rebuilt/expanded San Jose B substation would require utilization of transformer oil; however, this would be contained with the transformers. All transformers would be located within secondary containment in case of a leak or other failure resulting in discharge of transformer oil. All transformers would be located within the fenced and secured HVDC terminal and substation sites. Therefore, the Proposed Project would not result in a safety hazard or excessive noise for people residing or working in the Proposed Project area. Less-than-significant impacts under this criterion would occur.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Construction and operational activities supporting the upgrades and expansion of the existing San Jose B substation facilities would be similar to those activities required for the new Skyline terminal and would not result in construction equipment or permanent facilities that exceed those of the new terminal. These upgrades to the San Jose B substation would be discussed with FAA in addition to the overall Proposed Project components. As such, less-than-significant impacts would occur.

**Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

**Less-Than-Significant Impact.** The Proposed Project extends for approximately 13 miles within the ROW of several roads throughout the County of Santa Clara and the City of San José. Both of these agencies maintain EOPs and other supporting documentation, including an evacuation plan, as described in **Section 5.9.2**.

Construction for the Proposed Project would predominately occur within road ROWs and would require temporary lane closures during the proposed underground transmission line installation activities. Traffic detours may be necessary as part of construction, particularly in downtown San José within narrow streets. **Section 5.17**, *Transportation* further discusses the potential impacts on emergency access as a result of construction and O&M. Because the Proposed Project's transmission lines would be constructed in segments, only small segments of roads are anticipated to be impacted by potential lane closures at a given time. Additionally, with implementation of **APM TRA-1**, *Traffic Control Plan* construction and O&M activities associated with the Proposed Project would not result in inadequate emergency access and, therefore, would not physically interfere with the County and City EOPs. The Proposed Project would also not impair implementation of the EOPs because, in the event of an emergency, LS Power and/or its contractors would follow the instructions of the local emergency response agencies. In addition, as described in **Section 5.15**, the Proposed Project would not affect service ratios, response times, or other objectives for public services in the area. Fire, emergency, and police services currently serve and would continue to serve the Proposed Project area. Therefore, implementation of **APM TRA-1** would reduce impacts to less than significant.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. No road closures would be needed to implement the proposed PG&E substation upgrades and expansion. If required, to comply with local or Caltrans regulations, a Traffic Control Plan (TCP) would be implemented at the PG&E upgrade areas to ensure that access is not impeded during construction, including access to the PG&E facility and associated staging areas. Impacts to this criterion would be less than significant.

**Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?**

**No Impact.** Refer to **Section 5.20** for an analysis of impacts associated with wildland fires, including at the PG&E facility upgrade areas. No impacts would occur under this criterion.

**Would the project create a significant hazard to air traffic from the installation of new power lines and structures?**

**Less-Than-Significant Impact.** As discussed in an above response, the Proposed Project, including the proposed Skyline terminal and rebuilt/expanded San Jose B substation, is located within two miles of an airport. However, the Proposed Project would fully comply with applicable regulations, including the FAA and ALUC Policy. Therefore, the Proposed Project would not create a significant hazard to air traffic, and impacts would be less than significant under this criterion.

**Would the project create a significant hazard to the public or environment through the transport of heavy materials using helicopters?**

**No Impact.** Helicopters are not anticipated to be used for construction or O&M of the Proposed Project, including upgrades and expansion of existing PG&E substations. Therefore, no impacts would occur under this criterion.

**Would the project expose people to a significant risk of injury or death involving unexploded ordnance?**

**No Impact.** The environmental database (refer to **Appendix 5.9-A**) did not identify any historical land uses that would have led to an unexploded ordnance being on the Proposed Project area or in the vicinity, including the existing PG&E Metcalf and San Jose B substation sites. As such, the Proposed Project would not expose people to a significant risk of injury or death due to an unexploded ordnance. Therefore, no impacts would occur under this criterion.

**Would the project expose workers or the public to excessive shock hazards?**

**Less-Than-Significant Impact.** All authorized personnel working on-site, during either construction or O&M, would be trained according to OSHA safety standards (U.S. Department of Labor [DOL], 2023), which are based on applicable federal, state, and local safety regulations. To minimize potential exposure of the public to electric shock hazards, a wall would extend around the perimeter of each proposed HVDC terminal site, thus restricting site access, as stated in **Section 3.0**. The entrances to the proposed HVDC terminal sites would be gated and monitored remotely, restricting access to only authorized personnel. Warning signs would be posted around the perimeter of the Proposed Project's wall and gate to alert persons of potential electrical hazards. In addition, the Proposed Project would be designed in accordance with CPUC GO 95 Guidelines for safe clearances established to protect the public from electric shock.

During O&M facilities inspections, all fencing would be examined, and repairs would be made as necessary. The Proposed Project would be remotely monitored by LS Power 24 hours a day, seven days a week. If equipment malfunctions, O&M personnel would be available to be dispatched to the site to investigate the problem and take appropriate corrective action. LS Power has qualified operations personnel that are trained to avoid and minimize arc flash situations and are provided the appropriate arc flash personal protective equipment (PPE) (e.g., fire resistant clothing, gloves, and insulate tools). Proper PPE would be required when anyone is in the facility. LS Power uses high-speed relay equipment that evaluates electrical fault locations and opens circuit breakers to de-energize the line in milliseconds.

The Proposed Project includes three major elements that could cause shock hazards to workers or the public: two new HVDC terminals, one new 320 kV DC transmission line, and two new alternating current (AC) transmission lines. The new HVDC terminals contain numerous pieces of equipment and connections/wiring capable of creating shock hazards; however, these facilities would be completely secured from the public and restricted to only those workers who are properly trained and equipped with proper PPE. Potential impacts from these facilities would be less than significant.

The new Grove to Skyline 320 kV DC transmission line would be approximately 13 miles in length and would be installed entirely underground between the new Skyline and Grove terminals. Specifically, the proposed Grove to Skyline 320 kV DC transmission line would be installed almost exclusively within (i.e., under) public roadways such as Monterey Road. Therefore, the transmission line would be removed from causing direct hazards to workers or the public. The line would be de-energized during maintenance and repairs as required to ensure worker and public safety. The shock hazards associated with the proposed Grove to Skyline 320 kV DC transmission line are detailed in **Appendix 5.9-C**, *Power Santa Clara Valley Transmission Project - Electromagnetic Effects of AC and DC High Voltage Circuit on Nearby Utilities*. The Association for Materials Protection and Performance/National Association of Corrosion Engineers

(AMPP/NACE) Standard SP0177-2014 – Mitigation of Alternating Current and Lightning Effects on Metallic structures and Corrosion Control Systems, Section 5.2.1.1, states, "Safe limits must be determined by qualified personnel based on anticipated exposure conditions. For the purpose of this standard, a steady-state touch voltage of fifteen (15) V or more with respect to local earth at above-grade or exposed sections and appurtenances is considered to constitute a shock hazard." Based on currently available information, shock hazards due to stray DC currents along the proposed Grove to Skyline 320 kV DC transmission line not expected. However, there may be potential DC interference effects created during a short circuit fault of the DC line on a natural gas pipeline in proximity to the Skyline HVDC terminal. This area requires further site and circuit details to fully evaluate the extent of potential impacts and if mitigation would be necessary to eliminate potential shock hazards. The further evaluation would be completed through implementation of **APM HAZ-5**, *Final Induction Study and Utility Coordination* which requires LS Power to coordinate the design and construction of the proposed Grove to Skyline 320 kV DC transmission line and terminals to mitigate potential electromagnetic induction effects on existing metallic utilities. Therefore, potential impacts from the proposed Grove to Skyline 320 kV DC transmission line and the terminals would be less than significant.

The new Skyline to San Jose B 115 kV station tie line would connect the proposed Skyline terminal to the rebuilt expansion of the existing San Jose B substation via a new short, over-the-fence overhead transmission line that would be completely contained within the proposed Skyline terminal and the existing San Jose B substation. The proposed Skyline to San Jose B 115 kV station tie line would be completely removed from potential access from members of the public or untrained workers. As energized facilities, both the proposed Skyline terminal and the existing San Jose B substation would be designed and operated to mitigate the potential for induced current effects. Impacts would be less than significant.

The new Metcalf to Grove 500 kV transmission line that would connect the proposed Grove terminal to the existing Metcalf substation (approximately 1.2 miles) would be installed underground. Therefore, the potential for direct shock hazard would be removed, and no impact would occur. In addition, the line would be de-energized as required during maintenance and repairs to ensure worker safety. Based on preliminary review of the proposed Metcalf to Grove 500 kV transmission line alignment, the only known existing metallic utilities located in the vicinity are overhead PG&E electric distribution and transmission lines, the existing Metcalf substation, and underground gas lines. The electric distribution lines utilize wood monopole support structures, while the transmission lines utilize steel lattice towers. PG&E and Calpine Corporation also have gas pipelines located in the vicinity of the proposed Metcalf to Grove 500 kV transmission line. AC distribution and transmission lines can cause induced voltages to metallic objects in close proximity, which can result in touch potential effects. Touch potential refers to the measurement of voltage that passes between any two points on a person's body when exposed to electric current, which can present a shock hazard to personnel. Voltages on the metallic objects can be controlled by various methods, including gradient control wires (zinc ribbon or equivalent) or AC ground wells along the pipeline. Implementation of **APM HAZ-5** requires LS Power to coordinate the design and construction of the proposed Metcalf to Grove 500 kV transmission line to mitigate potential electromagnetic induction effects on existing metallic utilities. As such, the Proposed Project would not expose workers or the public to excessive shock hazards, and impacts would be less than significant.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Similar to the proposed HVDC terminal facilities, the existing PG&E substations are secured with fencing, walls, and security systems. Only trained and approved personnel are granted access to portions of the substation facilities that contain potentially hazardous shock conditions. All personnel are required to wear appropriate protective equipment and clothing. Less-than-significant impacts would occur.

### 5.9.5 CPUC DRAFT ENVIRONMENTAL MEASURES

There are no CPUC Draft Environmental Measures suggested for hazards, hazardous materials, and public safety.

### 5.9.6 APPLICANT PROPOSED MEASURES

The following hazards, hazardous materials, and public safety-specific APMs would be implemented for the Proposed 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 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 SPCC 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**

An 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 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 Proposed 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 Proposed Project will 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 Proposed Project.

**APM HAZ-3: Skyline Terminal Soil and Groundwater Contamination Management**

Construction activities at the proposed Skyline terminal (within the College Park Parcel 2 site) shall comply with the SMP that was prepared as part of the Covenant for the proposed Skyline terminal property. This includes, but is not necessarily limited to:

- Soil sampling before construction begins shall be conducted to identify the presence of contamination and specific contaminants.
- Impacted soils, if encountered, shall be stockpiled on-site in approximate 100 to 250 cubic yard volumes. The soil stockpiles shall be covered with 10-mil plastic sheeting and secured to prevent dust or runoff during storm events. All appropriate dust control and stormwater BMPs shall be implemented during the soil mitigation activities.
- Upon completion of excavation work and confirmation sampling, the excavation shall be backfilled with the excavated soil or clean import fill. Import fill shall be tested in general accordance with DTSC requirements, prior to acceptance. Imported soil shall be placed in accordance with the Proposed Project's geotechnical engineer's recommendations.

In addition to adherence to the SMP, LS Power shall implement measures to address potentially contaminated groundwater, if encountered. If groundwater is encountered during construction at the proposed Skyline terminal site, it shall be sampled prior to disposal. If dewatering must occur, groundwater shall be pumped directly to baker tanks (or similar) portable storage tanks. The groundwater shall not be transported or disposed of until it has been tested for possible contamination. All groundwater extracted from the proposed Skyline terminal site shall be handled, transported, and disposed according to applicable laws and regulations.

**APM HAZ-4: Soil Management Plan**

A Soil Management Plan shall be prepared prior to construction that identifies specific steps necessary to properly identify, handle, treat, and dispose of potentially contaminated soils throughout the Proposed Project area where known contamination occurs in close proximity to project-related ground disturbance. The Soil Management Plan shall include, but not be limited to, the following requirements:

- Prior to commencement of construction activities within the 10 contaminated sites discussed above, the soil along the path of the underground alignment shall be sampled

to identify any potential contaminants. The soil sampling shall include testing for specific contaminants identified in agency records.

- If sampling identifies soil contaminated above hazardous waste levels, the soil shall be contained and disposed of at a licensed waste facility. The presence of known or suspected contaminated soil shall require testing and investigation procedures to be supervised by a qualified person, as appropriate, to meet state and federal regulations.
- In the event that soils suspected of being contaminated (on the basis of visual, olfactory, or other evidence) are removed during site grading activities or excavation activities, the excavated soil shall be tested, and if contaminated above hazardous waste levels, shall be contained and disposed of at a licensed waste facility.

**APM HAZ-5: Final Induction Study and Utility Coordination**

Design and construction of the proposed transmission lines shall be coordinated with existing utility owners (as applicable) to ensure that operation of the new transmission lines shall not cause unsafe electromagnetic induction effects on any existing metallic utilities located in close proximity to the proposed transmission lines. LS Power shall conduct a detailed Final Induction Study for all existing metallic utilities in close proximity to proposed transmission line alignments. Where potential adverse effects are identified by the induction study, LS Power 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.

### 5.9.7 PG&E BEST MANAGEMENT PRACTICES

The following hazards, hazardous materials, and public safety-specific BMPs would be implemented by PG&E for the activities to be completed by PG&E and/or their contractors. **BMP AQ-2**, *Asbestos*, is provided in **Section 5.3**, *Air Quality*.

**BMP HAZ-1: Oil Filled Electrical Equipment (OFEE)**

The following measures will 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 Environmental Field Specialist (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-polychlorinated biphenyl (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 will not leak during transport; taken straight back to the Service Center (i.e., stops at laydown yards 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 will be assumed > 500 PPM PCB. Contact the EFS to coordinate generation of a Purchase Order and contract for

disposal. This equipment will 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 (1000 cubic feet for simple asphyxiation or the release of pressure only; carbon dioxide), 500 pounds of solids, or 55 gallons of liquids for more than 30 non-consecutive days. If required, the local county or city will 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 will 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 best management practices.

- All releases of hazardous materials must be immediately addressed. Maintain a spill kit onsite during the length of the project. Contact the project EFS for spills of hazardous materials/wastes to determine if agency notifications will be required and/or if additional resources are needed.
- Hazardous materials, greater than 440 lbs and less than 1001 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. 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; or
- 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 (4 ml) 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 will be generating lead-acid battery universal waste. The construction contractor or PG&E technicians shall properly manage & dispose of universal waste and follow Lead Acid Battery Procedure ENV 4000P-05-JA05 and/or ENV 4000P-05-JA06. Contact the project EFS for additional guidance in these areas.

Management of Undamaged (Intact) Batteries – Universal Waste:

- If batteries are undamaged (i.e., intact and not leaking), they can be managed as universal waste at the nearest PG&E waste consolidation site. Remote sites shall have batteries transported and disposed of from site if quantities warrant. A PG&E-approved hazardous waste contractor transports intact batteries from a waste consolidation site to an approved universal waste handler using a non-hazardous waste manifest.
- Note: It is recommended that large station backup batteries are better shipped directly from the substation to a disposal facility rather then taken to a PG&E waste consolidation site. Coordinate with the local EFS for disposal.
- Reference ENV 4000P-05-JA05 for general information, proper labeling, transportation, storage, and accumulation time limit.

Management of Damaged or Leaking Batteries – Hazardous Waste:

- Ship damaged or leaking batteries from a waste consolidation site to an approved treatment, storage, and disposal facility (TSDF) for disposal using a PG&E-approved hazardous waste contractor and a uniform hazardous waste manifest (see ENV-4000P-02-JA01 Uniform Hazardous Waste Manifest).
- Batteries must be placed in non-reactive, structurally sound, closed containers (such as plastic drum) that are adequate to prevent breakage or further damage and contain vermiculite, which can be attained at a PG&E waste consolidation site.
- Reference ENV 4000P-05-JA05 for general information, proper labeling, transportation, storage, and accumulation time limit. Transportation – Reference ENV 4000P-05-JA05

- Transporting > 10 pounds 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 pounds 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, 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 SF6 as well as delivery and removal of all $SF_6$ cylinders.

- Contact information: https://www.advancedspecialtygases.com.

Before accessing any equipment that may contain SF6 gas byproduct waste, contact the local EFS at least two weeks in advance for assistance in arranging cleanup, transportation and disposal.

- The Planning Section Chief (PSC) will 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 ID number).
- SF6 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 SPCC 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 onsite 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 will require a Storm Water Pollution Prevention Plan (SWPPP). If the construction crew will not be installing 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 will 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.

**BMP HAZ-12: Skyline Terminal Site SMP**

PG&E construction activities that occur on the Skyline terminal property will comply with the Site Management Plan (SMP) that was prepared as part of the Covenant for the property.

## 5.10 HYDROLOGY AND WATER QUALITY

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Violate any water quality standards or water discharge requirements or otherwise substantially degrade surface or groundwater quality? | | | X | |
| b. | Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? | | | X | |
| 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? | | | X | |
| | ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | | | X | |
| | 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? | | | X | |
| | iv) Impede or redirect flood flows? | | | X | |
| d. | In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | | | X | |
| e. | Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | | | X | |

This section describes hydrology and water quality within the vicinity of the Proposed Project, as well as potential impacts resulting from construction and operation and maintenance (O&M) of the Proposed Project.

## 5.10.1 ENVIRONMENTAL SETTING

The Proposed Project area is located within the San Francisco Bay Hydrologic Region ("Region"), which covers 4,603 square miles of waterways, wetlands, bays, and estuaries (San Francisco Bay Regional Water Quality Control Board [RWQCB], 2023). The Region includes all of the County of San Francisco and all or major portions of the Counties of Marin, Sonoma, Napa, Solano, San Mateo, Santa Clara, Contra Costa, and Alameda. Surface water and groundwater quality within the Region are regulated by the San Francisco Bay RWQCB. Surface water flows in the Region are highly seasonal, with more than 90 percent of the annual runoff occurring during the winter rainy season between October and April. Many streams become dry during the middle or late summer. Groundwater is an important component of the hydrologic system in the Region, as it supplies high quality water for drinking, irrigation, and industrial processing and service. As an important source of freshwater replenishment, groundwater may also discharge to surface streams, wetlands, and the San Francisco Bay.

Watersheds are delineated by the United States Geological Survey (USGS) using a Nationwide system based on surface hydrologic features. The Proposed Project area is located within the Coyote Watershed, Hydrologic Unit Code (HUC) 18050003 (USGS, 2023). The 321-square-mile Coyote Creek Watershed flows northward into San Francisco Bay, extending from the vast natural areas of the Diablo Range down to the urbanized valley floor and baylands (Santa Clara Valley Water District [SCVWD or "Valley Water"], 2023a). Upper Penitencia Creek is one of Coyote Creek's main tributaries, with Cherry Flat Reservoir (owned and operated by the City of San José) located in its upper reach. Other tributaries include Fisher Creek, Upper Silver Creek, Lower Silver/Thompson Creeks, and Lower Berryessa Creek. SCVWD-owned reservoirs in this watershed include Coyote and Anderson reservoirs, both located on the main stem of Coyote Creek east of the City of Morgan Hill.

The Proposed Project lies in the Santa Clara Subbasin, which is located within the larger Santa Clara Valley Groundwater Basin. The Santa Clara Valley Groundwater Basin is divided into four groundwater subbasins: San Mateo Plain, Santa Clara, Niles Cone, and East Bay Plain (California Department of Water Resources [DWR], 2018). This subbasin extends from the northern border of the County of Santa Clara to the groundwater divide near the City of Morgan Hill. The valley drains to the north by tributaries to San Francisco Bay, including Coyote Creek, the Guadalupe River, and Los Gatos Creek. The annual precipitation for the Santa Clara Subbasin ranges from less than 16 inches in the valley to more than 28 inches in the upland areas (California DWR, 2004).

The topography within the Proposed Project area ranges from approximately 73 feet to 268 feet above mean sea level (amsl) from north to south. Topography at the proposed high-voltage direct current (HVDC) terminal sites is relatively flat and ranges from approximately 74 to 84 feet amsl at the proposed Skyline terminal site and approximately 256 to 264 feet at the proposed Grove terminal site. **Figure 5.10-1**, *Surface Water and Groundwater Basins Map* illustrates the hydrologic setting of the area.

### 5.10.1.1 Waterbodies

There are four mapped streams that cross the path of the Proposed Project alignment. From north to south, the first is the inactive Coyote Alamitos Canal that crosses Monterey Road within the proposed Grove to Skyline 320 kilovolt (kV) direct current (DC) transmission line alignment just north of Metcalf Road. The second is Fisher Creek, a tributary of Coyote Creek, that crosses

Monterey Road just south of the existing Metcalf Energy Center within the proposed Grove to Skyline 320 kV DC transmission line alignment. Fisher Creek would be crossed by the Grove to Skyline 320 kV DC transmission line via horizontal directional drilling (HDD). While these two locations are mapped as streams/canals, the proposed construction is entirely within the roadway that currently bisects these features via existing culverts. The third location is a crossing of Coyote Canal, which crosses Coyote Ranch Road and the Metcalf to Grove 500 kV transmission line, approximately 0.2 miles north-northwest of the proposed Grove terminal fence line. This crossing would be constructed using open trenching techniques. The fourth location is a crossing of Coyote Creek that would occur via HDD under the creek; see **Figures 5.10-1 and 5.4-4**, *Aquatic Resources Map*. This crossing by the proposed Metcalf to Grove 500 kV transmission line would occur approximately 400 feet north/northwest of the proposed Grove terminal site. If conventional trenching over or under the culvert is not feasible at the canal crossings, construction would use horizontal boring (jack-and-bore) or HDD trenchless techniques, as required. There are also two waterbodies that are not intersected by any Proposed Project features but are located in the study area near the proposed Skyline terminal site. The Guadalupe River channel is adjacent to the proposed Skyline terminal site and is within 200 feet east of the site's border. Los Gatos Creek is a tributary to the Guadalupe River and joins the Guadalupe River channel approximately 2,150 feet south of the proposed Skyline terminal and 0.4 mile west of the proposed Grove to Skyline 320 kV DC transmission line.

Mileposts can be used to identify special land uses to include federal, state, and local agency land, coastal zone management areas, scenic rivers, and national landmarks. There are no special land uses, such as land administered by government agencies or private conservation organizations or national landmarks, in the Proposed Project area; therefore, no mileposts are provided.

#### 5.10.1.2 Water Quality

Under the Clean Water Act (CWA) Section 303(d), states are required to review, edit, and submit a list of water quality limited segments that are not meeting, or are not expected to meet, water quality standards to the U.S. Environmental Protection Agency (EPA). The Guadalupe River, Coyote Creek, and lower Los Gatos Creek are listed on the San Francisco Bay RWQCB most recently approved Section 303(d) impaired water body listing. Pollutants in the Guadalupe River are diazinon, trash, and mercury, and pollutants in Coyote Creek are diazinon, trash, and toxicity (State Water Resources Control Board [SWRCB], 2022). Pollutants in Los Gatos Creek are diazinon and temperature, which is considered a pollutant because average temperatures exceed the evaluation guidelines for the creek's beneficial use as a cold freshwater habitat. The Guadalupe River is located approximately 200 feet west of the proposed Skyline terminal. Coyote Creek is located approximately 0.1 mile east of the proposed Grove terminal, within 100 feet of the proposed Grove to Skyline 320 kV DC transmission line alignment. Los Gatos Creek joins the Guadalupe River channel approximately 2,150 feet south of the proposed Skyline terminal and 0.4 mile west of the proposed Grove to Skyline 320 kV DC transmission line and flows towards the San Francisco Bay.

#### 5.10.1.3 Groundwater Basin

The Proposed Project area is located within the Santa Clara Valley Groundwater Basin, Santa Clara Subbasin (Groundwater Basin Number 2-9.02) (California DWR, 2018); see **Figure 5.10-1**. Groundwater resources in the Region are supplied by both alluvial and fractured-rock aquifers. Alluvial aquifers are comprised of sand and gravel or finer-grained sediments, with groundwater

stored within the pore space between the alluvial sediments. Fractured-rock aquifers consist of impermeable granitic, metamorphic, volcanic, or hard sedimentary rocks, with groundwater being stored within cracks, fractures, or other void spaces. The regional water flow system is divided into an upper- and lower-aquifer system. Faults also control the flow of groundwater within the Santa Clara Valley and subdivide the aquifer system into three subregions. The Santa Clara Subbasin covers a subsurface area of 153,600 acres and has a storage capacity of approximately 350,000 acre-feet (AF) (California DWR, 2004, 2015, 2018). The subbasin boundary extends from the northern border of the County of Santa Clara to the groundwater divide near the Town of Morgan Hill and is bounded by the Diablo Range to the west and the Santa Cruz Mountains to the east. The Santa Clara Subbasin consists of Quaternary alluvium deposits of unconsolidated gravel, sand, silt, and clay that eroded from adjacent mountain ranges by flowing water and were deposited into the valley. The alluvium comprises interfingering alluvial fans, stream deposits, and terrace deposits.

Historically, SCVWD has been managing and monitoring recharge to the subbasin since 1929 to protect and augment groundwater supplies (SCVWD, 2023a). Since the early 1900s through the mid-1960s, water levels have declined from groundwater pumpage which has induced subsidence in the Santa Clara Subbasin and caused degradation of the aquifer adjacent to the bay from saltwater intrusion. Prior to importation of surface water via the Hetch Hetchy Aqueduct and South Bay Aqueduct and the introduction of an artificial recharge program, water levels declined more than 200 feet. Since 1965, groundwater levels in the Santa Clara Valley have generally increased as a result of increase in recharge and decreases in pumpage (California DWR, 2004).

Depth to groundwater is five to 10 feet below ground surface (bgs) at the proposed Skyline terminal site and existing Pacific Gas and Electric Company (PG&E) San Jose B substation site, zero to five feet bgs at the proposed Grove terminal site and along the proposed Metcalf to Grove 500 kV transmission line, and zero to 20 feet bgs at the existing PG&E Metcalf substation. Depth to groundwater along the proposed Grove to Skyline 320 kV DC transmission line route ranges from zero to 100 feet bgs, depending on the time of year (SCVWD, 2022).

#### 5.10.1.4 Groundwater Wells and Springs

A water well search was conducted on the SCVWD website for the Proposed Project area to identify groundwater wells and springs within 150 feet of the Proposed Project. Two active monitoring wells (both 30 feet deep) were identified within the proposed Skyline terminal site (SCVWD, 2023b, 2023c). However, these wells were not observed during surveys of the site. If located, the existing wells at the proposed Skyline terminal site would be capped per regulations. The proposed Grove terminal is sited on a property that is currently used as an orchard. There were two active water supply wells identified at the proposed Grove terminal site, according to SCVWD. The first is located along the northern boundary of the property, with no recorded depth. However, according to the current landowner of the proposed Grove terminal site, this well is actually located immediately north of the property, on the adjacent parcel. This well would, therefore, not be impacted by Proposed Project construction. The second well is recorded to be located in the southwestern half of the proposed Grove terminal site, with an approximate depth of 205 feet. This active well would be retained for on-site groundwater use during construction and operation of the proposed Grove terminal. According to the current property owner of the proposed Grove terminal site, existing use of the groundwater well is approximately 10 AF (3,258,514 gallons) per year for irrigation.

As the proposed underground Grove to Skyline 320 kV DC transmission line would be constructed almost exclusively within existing road rights-of-way (ROWs), there are no active wells or springs within the proposed disturbance area. There is also one active monitoring well (100 feet deep) located within the median of Monterey Road, approximately 0.35 mile southeast of the Monterey Road and East Capitol Expressway intersection (SCVWD, 2023b, 2023c); however, this well is outside of the proposed Grove to Skyline 320 kV DC transmission line alignment.

There are no active wells within the existing San Jose B substation site. There are two active water supply wells within the existing PG&E Metcalf substation site. The first is recorded as having a depth of 140 feet, and the second does not have a recorded depth.

In addition to the wells described above, there are approximately 47 active wells and many destroyed wells within 150 feet of the proposed Grove to Skyline 320 kV DC transmission line; four active wells within 150 feet of the proposed Metcalf to Grove 500 kV transmission line; one active well within 150 feet of the existing PG&E Metcalf substation; four active wells within 150 feet of the proposed Skyline terminal site; and one active well within 150 feet of the proposed Grove terminal site. There are no additional active wells within 150 feet of the existing PG&E San Jose B substation site (SCVWD, 2023b, 2023c).

#### 5.10.1.5 Groundwater Management

The Proposed Project is entirely within the Santa Clara Subbasin, exclusively managed by SCVWD. The Santa Clara Subbasin is designated as a high-priority basin by DWR and does not contain adjudicated areas. SCVWD provides periodic evaluations at least once every five years and provides annual reporting to the DWR. SCVWD prepared the 2021 Groundwater Management Plan (GWMP) for the Santa Clara and Llagas Subbasins, which is the first required five-year update to the 2016 Groundwater Management Plan that was approved in 2019 by the California DWR. The GWMP identifies the strategies for replenishing groundwater with local and imported surface water; reducing demands on groundwater through treated surface water deliveries, water conservation and water recycling; and monitoring groundwater and implementing programs to protect against contamination (SCVWD, 2021a, 2021b).

Groundwater use in the Santa Clara Subbasin was 93,100 AF in 2021, an increase of 1,300 AF compared to 2020. This is greater than the five-year average of 82,000 AF due to continued higher demand by water retailers. Pumping locations and uses remained relatively stable, with nearly all (95 percent) groundwater used for municipal and industrial purposes. Due to below average precipitation in 2021, average groundwater levels were lower compared to 2020 but remained above the minimum thresholds established to protect against land subsidence and, thus, met the subsidence outcome measure in 2021. Estimated groundwater storage in the Santa Clara Subbasin at the end of 2021 was 291,300 AF, which was 23,900 AF lower than 2020 but above the 278,000 AF GWMP outcome measure. Santa Clara Subbasin groundwater continues to have very good quality overall. In 2021, 96 percent of water supply wells tested met primary health-based drinking water standards. Public water systems must comply with drinking water standards, which may require treatment or blending prior to delivery (SCVWD, 2021b).

Groundwater level fluctuations occur due to seasonal variations in the amount of rainfall, runoff, and other factors not evident at the time borings are performed. Therefore, groundwater levels during construction or at other times in the life of the Proposed Project may be higher or lower than anticipated. The possibility of groundwater level fluctuations has been considered when developing the design and construction plans for the Proposed Project. If groundwater is

encountered, dewatering may be required. LS Power Grid California, LLC ("LS Power") would follow all applicable state and federal regulations. Dewatering procedures are described in **Section 3.5.10.2**, *Dewatering*.

## 5.10.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

### 5.10.2.1 Hydrology and Water Quality Regulatory Setting

#### Federal

#### *Clean Water Act*

The CWA (33 U.S.C. Section 1251 et seq.) is the primary federal legislation that addresses water quality, pollution, and protection of the chemical, physical, and biological integrity of most waters in the United States. The CWA chiefly addresses the quality of surface waters, while groundwater contamination is addressed by other legislation, including the Resource Conservation and Recovery Act. Section 402 of the CWA established a permit system, the National Pollutant Discharge Elimination System (NPDES), to regulate point sources of discharge into navigable "waters of the United States". Under Section 404, the CWA regulates the placement of dredged or fill material into "waters of the United States," and, under Section 401, the CWA ensures that federally permitted activities comply with the Federal CWA and state water quality laws.

#### CWA Sections 303 and 304

Pursuant to Section 303 of the CWA, states are required to adopt water quality standards applicable to all "waters of the United States" (33 U.S.C. Section 1313). When adopting water quality standards, the states are required to consider the designated uses of the waters involved and the associated water quality criteria based upon those uses. Such standards are established taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and their use and value for navigation. Standards are also required to protect the public health or welfare and enhance the quality of water. Preferably, adopted water quality standards consist of specific numerical criteria; however, non-numeric criteria (e.g., narrative criteria, species dependent criteria, ecological criteria) based on bioassessment or monitoring may be utilized where numeric criteria are not available.

Under Section 303(d), states, territories, and authorized Tribes are required to develop lists of "impaired waters," identifying those waters where pollution controls are not sufficient to meet designated water quality standards resulting in the impairment of beneficial uses. In making designations, it is required that the jurisdiction establish a priority ranking system accounting for the severity of the pollution. This prioritization system is used in the development of Total Maximum Daily Loads (TMDL) for these waters to address water quality issues and the restoration of beneficial uses.

Section 304(a) requires that the EPA develop criteria for water quality that reflect the latest scientific knowledge based on data and scientific judgments on pollutant concentrations and environmental or human health effects. Criteria are grouped into six categories: aquatic life, biological, nutrients, human health, microbial (pathogen), and recreational.

Implementation of Section 303 of the CWA (i.e., adoption of water quality standards, identification of beneficial uses, and identification of impaired waters) in California is performed by the SWRCB and nine RWQCBs. The Proposed Project is within the jurisdiction of the San Francisco Bay RWQCB (Region 2).

**CWA Section 401**

Section 401 of the CWA provides states and authorized Tribes the opportunity to protect water quality by requiring that any applicant for a federal license or permit, conducting an activity that may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the state in which the discharge originates (33 U.S.C. Section 1341). This authority ensures that federally permitted activities comply with the CWA and state water quality laws. Section 401 is implemented through a review process conducted by the RWQCB, or, in the case of multiple RWQCB jurisdictions having authority, by the California SWRCB. The Proposed Project is within the jurisdiction of the San Francisco Bay RWQCB.

**CWA Section 402**

The NPDES program, established in 1972 as part of the CWA, controls water pollution through regulation of point source pollutants discharging to "waters of the United States" (33 U.S.C. Section 1342). Under the NPDES program, all facilities discharging pollutants from any point source into "waters of the United States" are required to obtain a NPDES permit. Though broadly defined, pollutants typically include any type of industrial, municipal, and agricultural waste and, for regulatory purposes, have been grouped into three categories: conventional (Section 304(a)(4) of the CWA), toxic (Section 307(a)(1) of the CWA), and non-conventional (pollutants not otherwise defined, including many nutrients or water quality parameters). The primary focus of the Federal NPDES permitting program has historically been municipal and non-municipal (industrial) discharges.

In 1987, with the issuance of the 1987 Water Quality Act, Section 402 of the CWA was amended, requiring regulation of additional stormwater dischargers (NPDES Stormwater Program). Phase I of the NPDES Stormwater Program addresses five categories of dischargers (Phase I Facilities), including certain industrial activities, Municipal Separate Storm Sewer Systems ("MS4"s), and facilities considered to be significant contributors of pollutants. The Phase I industrial stormwater program regulations include provisions requiring construction sites disturbing greater than five acres to obtain NPDES permits. Phase II regulations of the NPDES Stormwater Program, issued in 1999, address additional dischargers not covered by Phase I regulations. The Phase II regulations expand permitting requirements to small MS4s, construction sites of one to five acres, and certain previously exempt industrial facilities.

The EPA is the primary authority to implement NPDES, although the CWA allows the EPA to delegate NPDES authority to the states. The CWA is implemented on a state and local level in California primarily by the SWRCB and nine RWQCBs, collectively. Whereas the Federal NPDES program mostly deals with point source control, current focus and regulation is shifting to nonpoint source pollution control under the authority of the RWQCBs.

**CWA Section 404**

Section 404 of the CWA prohibits the discharge of dredged or fill material into "waters of the United States" without a permit from the U.S. Army Corps of Engineers (USACE). In light of recent

litigation, USACE and EPA are currently interpreting "waters of the United States" pursuant to the pre-2015 regulatory regime, as interpreted by the agencies' *Rapanos* guidance. Specifically, the agencies are applying the following regulatory definition, which had been codified at 40 Code of Federal Regulations (CFR) 230.3(s):

The term "waters of the United States" means:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
    a. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
    b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
    c. Which are used or could be used for industrial purposes by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the United States under this definition;
5. Tributaries of waters identified in paragraphs (s)(1) through (4) of this section;
6. The territorial sea;
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (s)(1) through (6) of this section; waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.11(m) which also meet the criteria of this definition) are not waters of the United States.

The EPA also has authority over wetlands and may override a USACE permit. Substantial impacts to wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions.

***National Flood Insurance Program***

The National Flood Insurance Act of 1968 establishes the National Flood Insurance Program (NFIP), which provides private company flood insurance by the Federal government. The NFIP relies on the national mapping system known as the Flood Insurance Rate Map (FIRM), which denotes special hazard areas associated with 100- and 500-year flood events. Lower rates are provided through the program for communities that encourage mitigation of flood hazards.

The Federal Emergency Management Agency (FEMA) has primary authority for preparation, response, and mitigation of natural hazards, including coastal and inland floods. FEMA provides financial and technical support to local agencies in the drafting and implementation of hazard mitigation plans. CFR Title 44, Part 60 provides criteria for communities participating in the NFIP to adopt flood plain management regulations consistent with federal criteria for lands within flood-prone, mudslide- (i.e., mudflow) prone, or flood-related erosion-prone areas.

**State**

***Porter-Cologne Water Quality Control Act***

The Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.) provides guidance for the protection of water quality and beneficial uses of water throughout the state and, along with the CWA, provides the overarching legislation governing the SWRCB and RWQCBs. "Waters of the State" are defined as any surface water or groundwater, including saline waters, which are within the boundaries of the State (California Codes: Public Resources Code [PRC] Section 71200). This differs from the CWA definition of "waters of the United States" by its inclusion of groundwater and waters outside the ordinary high-water mark (OHWM) in its jurisdiction.

The Porter-Cologne Act requires that each regional board adopt a Water Quality Control Plan, known as a "Basin Plan" for their region. Pursuant to Porter-Cologne, these Basin Plans become part of the California Water Plan, when such plans have been reported to the legislature (Section 13141, California Water Code). The Proposed Project is located within the jurisdiction of the San Francisco Bay RWQCB (Region 2) and subject to the criteria within the Basin Plan for the Sacramento River and San Joaquin River (San Francisco Bay RWQCB, 2023).

In 1972, amendments to the Porter-Cologne Act gave California the authority and ability to operate the Federal NPDES permits program. Before a permit may be issued, Section 401 of the CWA requires that the local RWQCB or, in the case of multiple RWQCB jurisdictions having authority, the SWRCB certify that the discharge would comply with applicable water quality standards. In addition, under Porter-Cologne, the RWQCB or SWRCB may also issue waste discharge requirements that set conditions on the discharge of a waste. These requirements must be consistent with the Basin Plan for the body of water that receives the waste discharge, as well as protect the beneficial uses of those receiving waters. On August 19, 1999, the SWRCB reissued the General Construction Stormwater Permit (Water Quality Order 99-08-DWQ), later amending it to apply to sites as small as one acre. On September 2, 2009, the SWRCB adopted Order No. 2009-0009-DWQ, which reissued Water Quality Order 99-08-DWQ. Order No. 2009-0009-DWQ has subsequently been amended by Order No. 2010-0014-DWQ and most recently by Order No. 2012-0006-DWQ on July 17, 2012.

The Construction General Permit (CGP) authorizes discharges of stormwater and regulates discharges of pollutants in stormwater associated with construction activities from construction sites that disturb one or more acres of land surface or are part of a common plan of development or sale that disturbs more than one acre of land surface where the rainfall erosivity waiver does not apply. The CGP requires proposed dischargers to file a public Notice of Intent (NOI), submit Permit Registration Documents to the SWRCB's Stormwater Multiple Application and Report Tracking System (SMARTS) website, and obtain a Waste Discharger Identification Number prior to beginning regulated activities. The applicability of the CGP is contingent on meeting all order conditions and requirements including the implementation of a Stormwater Pollution Prevention Plan (SWPPP). In accordance with Order No. 2010-0014-DWQ, the SWPPP must be prepared and certified by a qualified SWPPP developer and include information to conclude:

- All pollutants and their sources, including sources of sediment associated with construction, construction site erosion, and all other activities associated with construction activity, are controlled;

- Where not otherwise required to be under a RWQCB permit, all non-stormwater discharges are identified and either eliminated, controlled, or treated;

- Site Best Management Practices (BMPs) are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges from construction activity to the Best Available Technology (BAT)/Best Control Technology (BCT) standard;

- Calculations and design details as well as BMP controls for site run-on are complete and correct; and

- Stabilization BMPs installed to reduce or eliminate pollutants after construction are completed.

The SWRCB and RWQCBs also implement Section 402 of the CWA, which allows the State of California to issue a single discharge permit for stormwater runoff for the purposes of both federal and state law, as well as Section 303(d) of the CWA pursuant to the authority of the Porter-Cologne Act.

The SWRCB's State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State ("Procedures"), provides a state-wide definition of "wetlands," and sets forth Statewide permitting requirements for discharges of dredge or fill material to "waters of the State", including wetlands that qualify as "waters of the State".

***California Fish and Game Code Section 1602 – Lake and Streambed Alteration Notification/Agreement***

Section 1602 of the California Fish and Game Code requires that a Lake and Streambed Alteration Application be submitted to the California Department of Fish and Wildlife (CDFW) for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake." CDFW reviews the proposed actions and, if necessary, submits to the applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by the CDFW and the applicant is the Lake and Streambed Alteration Agreement.

***Sustainable Groundwater Management Act***

The Sustainable Groundwater Management Act (SGMA) provides a framework to help provide long-term protection of groundwater resources. SGMA requires local agencies to form groundwater sustainability agencies for high and medium priority basin and implement groundwater sustainability plans to mitigate and avoid overdraft. The California DWR provides regulatory oversight through the evaluation and assessments of groundwater sustainability plans, and ongoing support through the development of BMPs, planning assistance, technical assistance, and financial assistance. The Santa Clara Subbasin is designated as a high priority basin under DWR's Bulletin 118.

### *California Executive Order N-7-22*

California Governor Newsom signed Executive Order (EO) N-7-22 on March 28, 2022, in response to extreme and expanding drought conditions in the State. Among other requirements, the EO limits an agency's ability to permit modified or new groundwater wells. Action 9 of the EO prohibits a city, county, or other public agency from approving a permit for a new groundwater well or for alteration of an existing well in a basin subject to SGMA and classified as a medium or high priority basin. Prior to issuing a permit for a new groundwater well or alteration of an existing well, an agency is required to determine that extraction of groundwater from the proposed well is not likely to interfere with the production and function of existing nearby wells and not likely to cause subsidence that would adversely impact or damage nearby infrastructure. Action 9 does not apply to permits for wells that will provide less than two AF per year of groundwater for individual domestic users or that will exclusively provide groundwater to public water supply systems as defined in Section 116275 of the Health and Safety Code. Further, EO N-7-22 applies to the issuance of well permits for new wells or well alterations, and it does not apply to well destruction or capping to cease use of a well.

## Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, "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 the City of San José and the County of Santa Clara do not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section includes a summary of local hydrology and water quality-related policies, plans, or programs for informational purposes. Although LS Power is not subject to local discretionary permitting, ministerial permits would be secured as appropriate.

### *San Francisco Bay Water Quality Control Plan*

The San Francisco Bay Water Quality Control Basin Plan ("San Francisco Bay Basin Plan") is the San Francisco Bay RWQCB master water quality control planning document for the San Francisco Bay Basin (San Francisco Bay RWQCB, 2023). The San Francisco Bay Basin Plan designates beneficial uses and water quality objectives for "waters of the State", including surface waters and groundwater. It also includes programs of implementation to achieve water quality objectives. The San Francisco Bay Basin Plan established water quality objectives for total dissolved solids, mineral constituents, and turbidity on a watershed-by-watershed basis within the region, while objectives for total and fecal coliform bacteria, nutrients (total nitrogen and total phosphorus), pH, dissolved oxygen, and un-ionized ammonia are set on a regionwide basis.

Inland surface waters support or could support most of the beneficial uses described above. The specific beneficial uses for inland streams include municipal and domestic supply (MUN), agricultural supply (AGR), commercial and sport fishing (COMM), freshwater replenishment

(FRSH), industrial process supply (PROC), groundwater recharge (GWR), preservation of rare and endangered species (RARE), water contact recreation (REC1), noncontact water recreation (REC2), wildlife habitat (WILD), cold freshwater habitat (COLD), warm freshwater habitat (WARM), fish migration (MIGR), and fish spawning (SPWN). The San Francisco Bay Estuary supports estuarine habitat (EST), industrial service supply (IND), and navigation (NAV) in addition to COMM, RARE, REC1, REC2, WILD, MIGR, and SPWN.

Coastal waters' beneficial uses include marine habitat (MAR) and shellfish harvesting (SHELL) in addition to REC1, REC2, IND, NAV, COMM, WILD, MIGR, SPWN, and RARE.

In order to attain specified designated uses, the RWQCB is required to identify water quality objectives for all surface and ground waters in the region. These objectives must be consistent with federal and state anti-degradation polices (40 CFR section 131.12) and State Board Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California. This policy is aimed at protecting relatively uncontaminated aquatic systems where they exist and preventing further degradation. The State's Antidegradation Policy is consistent with the Federal Antidegradation Policy, as interpreted by the SWRCB in State Board Order No. 86-17.

### *Santa Clara Valley Water District*

SCVWD operates as the water supply and flood management agency for the County of Santa Clara. Its stewardship also includes creek restoration, pollution prevention efforts, and groundwater recharge. SCVWD requires permits for all well construction and abandonment/ destruction work and most exploratory boring for groundwater exploration.

The County of Santa Clara faces periods of severe drought, and SCVWD recognizes that water conservation is critical to sustainability. The 2020 Urban Water Management Plan (UWMP) prepared by SCVWD (SCVWD, 2020) projects water demand through 2045 for normal and dry years, describes the water supplies, and outlines a five-stage water shortage contingency plan to decrease water demand during periods of water shortage, including water conservation measures that may be enacted by SCVWD. The 2020 UWMP includes water supply estimates for future single dry years and multiple dry year periods on a Countywide basis.

SCVWD, along with 15 cities, the County of Santa Clara, and business, agriculture, and streamside property owners, and other environmental interest groups formed the Water Resources Protection Collaborative ("the Collaborative") in 2002 to clarify and streamline local permitting for streamside activities. In 2007, the Collaborative adopted a guidebook entitled Guidelines and Standards for Land Use Near Streams: A Manual of Tools, Standards, and Procedures to Protect Streams and Streamside Resource in the County of Santa Clara and replaced its existing streamside protection ordinance (Ordinance 83-2) with the Water Resources Protection Ordinance. The guidebook provides a framework for evaluating permit applications and establishing permit conditions.

### *County of Santa Clara General Plan*

The County of Santa Clara General Plan (County of Santa Clara, 1994) identifies the following policies pertaining to water quality and hydrology:

**Policy C-RC 12** More efficient use of water for agricultural irrigation and industrial processes should be promoted through improved technology and practices.

**Policy C-RC 19** The strategies for maintaining and improving water quality on a countywide basis, in addition to ongoing point source regulation, should include:

a. effective non-point source pollution control
b. restoration of wetlands, riparian areas, and other habitats which serve to improve Bay water quality
c. comprehensive Watershed Management Plans and BMPs

**Policy C-RC 20** Adequate safeguards for water resources and habitats should be developed and enforced to avoid or minimize water pollution of various kinds, including:

a. erosion and sedimentation
b. organic matter and wastes
c. pesticides and herbicides
d. effluent from inadequately functioning septic systems
e. effluent from municipal wastewater treatment plants
f. chemicals used in industrial and commercial activities and processes
g. industrial wastewater discharges
h. hazardous wastes
i. non-point source pollution

**Policy C-RC 22** Countywide, compliance should be achieved with the requirements of the NPDES permit for discharges into San Francisco Bay, and, to that end, the Countywide Nonpoint Source Pollution Control Program should receive the full support and participation of each member jurisdiction.

**Policy R-RC 13** Sedimentation and erosion shall be minimized through controls over development, including grading, quarrying, vegetation removal, road and bridge construction, and other uses which pose such a threat to water quality.

**Policy R-RC 35** Flood control modifications to be made in streams that have substantial existing natural areas should employ flood control designs which enhance riparian resources and avoid to the maximum extent possible significant alteration of the stream, its hydrology, and its environs.

**Policy R-RC 43** Large scale grading and clearing of land should not be allowed if it will significantly degrade valuable habitat or impair surface water quality.

**Policy R-RC 73** The extraction of mineral resources, including sand and gravel, should be carefully conditioned and regulated to mitigate potential adverse environmental impacts, including mitigation measures for potential increases in siltation and/or pollution of water resources in order to adequately protect the local water supply.

***City of San José General Plan***

The City of San José General Plan (City of San José, 2024) identifies the following policies pertaining to water quality and hydrology:

**Policy ER-9.4** Work with the SCVWD to preserve water quality by establishing appropriate public access and recreational uses on land adjacent to rivers, creeks, wetlands, and other significant water courses.

**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-3.8** In designing improvements to creeks and rivers, protect adjacent properties from flooding consistent with the best available information and standards from the FEMA and the California DWR. Incorporate restoration of natural habitat into improvements where feasible.

**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 NPDES permit.

## 5.10.3 IMPACT QUESTIONS

### 5.10.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to hydrology and water quality come from the California Environmental Quality Act (CEQA), Appendix G Environmental Checklist. According to the CEQA Environmental Checklist, a project may cause a potentially significant impact if it would:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality; or
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin; or
- 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; or

- Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; or

- 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.

- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; or

- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

#### 5.10.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing Proponent's Environmental Assessments* (CPUC, 2019), there are no additional CEQA Impact Questions required for hydrology and water quality.

### 5.10.4 IMPACT ANALYSIS

#### 5.10.4.1 Hydrology and Water Quality Impact Analysis

**Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?**

**Less-Than-Significant Impact.** There are three mapped streams located within the Proposed Project area. Two of the stream locations are mapped as streams/canals (the perpendicular crossing of the inactive Coyote Alamitos canal and the Fisher Creek crossing along Monterey Road). The proposed construction at these locations is entirely within the existing roadway that currently bisects these features via existing culverts. Construction of the proposed Grove to Skyline 320 kV DC transmission line alignment would use horizontal boring (jack-and-bore) or HDD trenchless techniques under the existing culverts if conventional trenching over the culverts is not feasible. The third stream crossing is located along the southern portion of the proposed Metcalf to Grove 500 kV transmission line, where the transmission line would cross Coyote Creek near the Grove terminal. The construction of this crossing would include an HDD that would bring the transmission line under the creek and back to the surface (refer to **Figure 3-4**, *Project Route Map*). Based on preliminary engineering, individual HDD bore holes would be required under Coyote Creek to separate the polyethylene (XLPE) cables in order to meet the Proposed Project's required ratings. Hence, four bore holes, with a spacing of approximately 20 feet between bore holes, would be drilled under Coyote Creek.

Construction activities would have the potential to disturb surface soils and increase the potential for temporary erosion or sediment-transport. Additionally, dewatering may be required for construction of the proposed HVDC terminals, HDD and jack-and-bore construction methods, installation of the underground transmission line , and other below-grade activities, which could potentially affect surface water quality. Groundwater encountered during underground construction would be pumped into water trucks for haul off or directly into containment tanks that

allow acceptable de-sedimentation prior to discharge and tested for turbidity, pH, and other required parameters. When tested groundwater meets water quality standards in accordance with applicable regulations and acquired permits, the water would be discharged into the existing storm sewer system . If parameters are detected in concentrations that prohibit discharge, the water would be hauled off-site. Discharge may also be applied to flat, vegetated, upland areas; used for dust control; or used in other suitable construction operations (e.g., concrete mixing) if testing determines water is suitable for such use in accordance with applicable regulations and acquired permits.

Erosion and sedimentation affect water quality through interference with photosynthesis, oxygen exchange, and the respiration, growth, and reproduction of aquatic species. Additionally, other pollutants, such as nutrients, trace metals, and hydrocarbons, can attach to sediment and be transported downstream, which could contribute to degradation of water quality downstream of construction. Erosion control and sediment control BMPs would be required as part of the Proposed Project's SWPPP. These BMPs would prevent potential stormwater pollution from erosion or sediment transport. LS Power would consult with and acquire the requisite permits under the CWA (Section 401/404) from applicable regulatory agencies and fully comply with all conditions of the permits. Additional discussion is provided in **Section 5.4**.

In addition to potential pollutant contributions from disturbed areas, the delivery, handling, and storage of construction materials and wastes, as well as the use of construction equipment, could introduce a risk for stormwater contamination that could affect water quality. Spills or leaks from heavy equipment and machinery could result in oil and grease contamination. Staging areas could also be the source of pollution because of the use of paints, solvents, cleaning agents, and metals during construction. Materials from soil excavation could contain hazardous materials that may be exposed to stormwater. As discussed in **Section 5.9**, *Hazards, Hazardous Materials, and Public Safety*, the Proposed Project would comply with the applicable regulations for the safe handling and transport of hazardous materials. Furthermore, concrete used for foundations or the duct bank could be potential sources of water quality pollution if any of these materials were spilled or deposited on unprotected surfaces. Stormwater management and waste management construction BMPs would also be implemented to prevent pollutants from being discharged to waterways from stockpiles, material, equipment storage and use, trash, and other pollutant sources. The Proposed Project would not violate any water quality standard or waste discharge requirement because LS Power would comply with the regulatory requirements for protection of water quality, including implementation of the SWPPP, stormwater BMPs, and the implementation of **Applicant Proposed Measure (APM) WQ-1**, *Groundwater Dewatering and Discharge Measure*. **APM WQ-1** requires all groundwater encountered during construction to be handled and discharged in accordance with all state and federal regulations. Furthermore, there are no designated mileposts or special land uses, such as land administered by government agencies or conservation organizations, in the Proposed Project area.

Runoff from the proposed Skyline terminal and Grove terminal facilities would be directed to the proposed on-site detention system. The earthen stormwater detention system would not be lined, allowing for infiltration and groundwater recharge. The stormwater detention system is designed to capture the runoff from the 100-year storm, 24-hour rainfall event and then release the captured water over 48 hours. Overflow from the detention system would be returned to sheet flow via a level spreader that would provide for sheet flow of the stormwater to the adjacent land surface during storms that exceed the system's design capacity. The level spreading approach would control erosion and prevent scouring at discharge locations.

LS Power would assess the risk to water quality, based on site-specific soil characteristics, slope, and the construction schedule, and would develop a SWPPP that would ensure protection of water quality. The SWPPP would specify measures for each activity that has the potential to degrade surrounding water quality through erosion, sediment runoff, and the presence of other pollutants. These measures would be implemented and monitored throughout the Proposed Project by a Qualified SWPPP Practitioner (QSP). Implementation of **APM WQ-1** would further minimize the temporary and short-term construction-related impacts on water quality. Impacts would be less than significant under this criterion.

O&M activities may include use of new pollutant sources, including, but not limited to, oils, paints, and solvents used for routine maintenance. All materials would be applied, stored, and disposed of in an appropriate containment in a manner consistent with manufacturer recommendations by licensed professionals, if necessary, and in accordance with applicable regulations. Therefore, impacts under this criterion would be less than significant.

**PG&E Facility Upgrades**

In order to integrate the proposed HVDC terminals and new Grove to Skyline 320 kV DC transmission line into the existing transmission system, PG&E would be required to perform upgrades at two existing substations: modifications to the Metcalf substation and expansion of the San Jose B substation (refer to **Section 3.3.5**, *Other Potentially Required Facilities*). These upgrades would occur within and adjacent to the existing substation facilities. The PG&E facility upgrades would also include a new water line to the existing Metcalf substation, which would extend approximately 800 feet north-northeast from the Metcalf substation and connect to a 16-inch water main near the corner of Metcalf Road and Malech Road, which is served by the Great Oaks Water Company (GOWC). Construction of these upgrades would occur concurrently with construction of the remainder of the Proposed Project and for a limited duration. Both existing PG&E substation sites are located on developed, paved/disturbed land, with existing stormwater collection facilities. The proposed water line would occur along an existing road ROW and disturbed areas. Construction of the PG&E facility upgrades would be consistent with the Proposed Project SWPPP (or a separate SWPPP) and would implement PG&E **BMP HAZ-10**, *Stormwater BMP Installation*. If dewatering is required for the PG&E facility upgrades, dewatering would be conducted in accordance with PG&E **BMPs HAZ-9**, *Vault Dewatering* and **HAZ-11**, *Construction Dewatering* and would comply with the associated dewatering plan. As such, less-than-significant impacts would occur.

**Would the project 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 Impact**. The Proposed Project would utilize a combination of on-site water (at the proposed Grove terminal site) and water trucked in from local sources. Water could also be trucked from the proposed Grove terminal to other Proposed Project sites, if needed. In addition to the potential use of potable water, recycled, reclaimed water, or groundwater would be used by the Proposed Project, as available, in accordance with applicable regulations and acquired permits to meet the Proposed Project's construction needs. The estimated total water needs of the Proposed Project are 16 million gallons of water to be used for dust control, compaction, and concrete work over a period of approximately 24 months.

The proposed Skyline terminal site currently consists of a highly disturbed, undeveloped lot. As discussed in Section **5.10.1.4**, *Groundwater Wells and Springs*, there are two existing wells within the proposed Skyline terminal site; however, they are SCVWD monitoring wells and not used as water sources. If located, the existing wells within the proposed Skyline terminal site would be capped per regulations. The proposed Grove terminal is sited on a property that is currently used as an orchard, and there is one water source well located within the terminal site and another located on the northern border. Groundwater from the on-site well is proposed to be used during construction of the proposed Grove terminal, as well as during O&M to irrigate the orchard trees remaining in place following construction. The amount of groundwater used in addition to off-site supplies would be determined in accordance with applicable regulations to meet the Proposed Project's construction needs. The well would be retained on-site and would not require permitting for new or altered wells per California EO N-7-22. According to the current property owner of the proposed Grove terminal site, existing use of the groundwater well is approximately 10 AF (3,258,514 gallons) per year for on-site irrigation. The anticipated total water use during construction of the entire Proposed Project is approximately 16 million gallons (49 AF) over a 24-month period, and construction water demand at the proposed Grove terminal site would not exceed supplies of the well. The groundwater well draws from the Santa Clara Subbasin and provides sufficient supplies for agricultural irrigation of the approximately 13.6-acre site, which consists of approximately 3,000 existing orchard trees. Proposed Project construction would entail removal of approximately 2,850 trees, and approximately 150 trees would be retained along the frontage of Monterey Road at the proposed Grove terminal site. The proposed change from 3,000 trees to 150 trees is a reduction of approximately 95 percent, which is a substantial reduction in irrigation needs on-site. Therefore, there would be a significant reduction in groundwater demand at the site during construction and O&M of the Proposed Project in comparison to the existing conditions. Use of the well would be required to comply with groundwater sustainability plans of the Santa Clara Subbasin, which is designated as a high priority basin by DWR (DWR, 2024). Due to the anticipated reduction in groundwater demand at the proposed Grove terminal site and given the stringent groundwater management in place by DWR and SCVWD, groundwater use during construction and operation of the proposed Grove terminal site is not anticipated to substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Proposed Project may impede sustainable groundwater management of the basin.

The Proposed Project would require reduced water demand from current conditions for O&M activities to irrigate any retained orchards and/or drought resistant plants at the proposed Grove terminal facility as necessary. No water use is expected at the proposed Skyline terminal facility, and there would be no permanent workforce on-site at either of the proposed terminal sites. Thus, overall, the Proposed Project would not be expected to result in a substantial increased use of groundwater and/or surface water.

The permanent built-up portions of the proposed Grove and Skyline terminal sites would be converted from pervious surfaces to partially impervious surfaces. These new impervious areas would include features such as the equipment and control enclosures and equipment foundations. The amount of new impervious area at each terminal site would be 1.7 acres at the Skyline terminal and 2.2 acres at the Grove terminal. The total area converted from pervious to impervious surfaces for the Proposed Project would be approximately 4.1 acres, including the approximately 0.3-acre gas-insulated switchgear (GIS) enclosure proposed at the San Jose B substation adjacent to the Skyline terminal, as discussed further below in *PG&E Facility Upgrades.* These new impervious areas would not be considered significant as they represent a small fraction of the overall Proposed Project footprint. In addition, the majority of the proposed terminal facilities would be compacted and covered with gravel, and although still considered pervious as some

water can be absorbed, it would not be expected to facilitate high groundwater recharge. A detention system would be constructed for each terminal site that would capture runoff from the proposed Skyline and Grove terminals and allow the water to percolate into the ground; thus, groundwater recharge would not be adversely affected by the construction of impervious surfaces. Therefore, impacts would be less than significant under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Construction of these upgrades would occur concurrently with construction of the rest of the Proposed Project and for a limited duration. Both existing PG&E substation sites are located on developed, paved/disturbed land, with existing stormwater collection facilities. The only new impervious area for the PG&E facility upgrades would be the approximately 0.3-acre GIS enclosure proposed at the San Jose B substation adjacent to the Skyline terminal. The proposed San Jose B GIS enclosure represents a small portion of the existing substation facilities, and would not substantially interfere with groundwater recharge. Construction of the PG&E facility upgrades would be consistent with the Proposed Project SWPPP (or a separate SWPPP) and would not result in decreased groundwater supplies or recharge rates.. As part of the modifications to the existing Metcalf substation, an existing groundwater well would be decommissioned and replaced with a new water line connecting to an existing GOWC line. Therefore, the Metcalf substation operations would utilize less groundwater than under existing conditions. As such, impacts under this criterion would be less than significant.

**Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:**

**Result in substantial erosion or siltation on- or off-site?**

**Less-Than-Significant Impact.** The Proposed Project would be constructed on relatively flat land, primarily within existing roadways. Construction would require minimal grading, and the drainage pattern of the proposed HVDC terminal sites and public roadways would not be substantially altered. The Proposed Project would require clearing of vegetation for construction. Construction would involve activities that expose ground surfaces to erosion. While erosion is a natural and important process essential to maintaining the geomorphology of receiving waters, excess erosion and sedimentation can impair habitat functions and transport pollutants. All areas of exposed ground have the potential to result in increased erosion during rain events and the transport of soil particles and other materials into nearby receiving waters. The proposed Skyline terminal is located on flat land within a former railyard where the previously existing railyard facilities have been removed. The proposed Skyline terminal site was previously compacted and covered with gravel from the previous use, and although still considered pervious as some water can be absorbed, it would not be expected to facilitate high groundwater recharge during a storm event in its current state. The proposed Grove terminal site is on flat agricultural land that is currently used as an orchard. As such, minimal grading would be required for the development of the Proposed Project. The Proposed Project would be required to implement a SWPPP and stormwater BMPs; therefore, it is not expected that grading or construction associated with the proposed HVDC terminal sites or transmission line alignments would contribute to sedimentation to any downstream receiving waters. The only portions of the Proposed Project that would be permanently converted from a pervious surface to an impervious surface are the built-up portions

of the proposed Grove and Skyline terminal sites, including structure foundations and enclosures. The amount of new impervious area at each terminal site would be 1.7 acres at the Skyline terminal and 2.2 acres at the Grove terminal. The total area converted from pervious to impervious surfaces for the Proposed Project would be approximately 4.1 acres, including the approximately 0.3-acre gas-insulated switchgear (GIS) enclosure proposed at the San Jose B substation adjacent to the Skyline terminal, as discussed further below in *PG&E Facility Upgrades.* These new impervious areas would not be considered significant as they represent a small fraction of the overall Proposed Project footprint. Furthermore, a stormwater detention system would be constructed for each terminal site that would capture runoff from the proposed terminals and allow the water to percolate into the ground. For these reasons, the existing drainage pattern of the area would not be substantially altered by the addition of impervious surfaces.

Construction and O&M of the Proposed Project would not result in substantial erosion or sedimentation on- or off-site. Therefore, impacts under this criterion would be less than significant.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Both existing PG&E substation sites are located on developed, paved/disturbed land, with existing stormwater collection facilities. There are no streams or other water features located within the limits of construction for the PG&E facility upgrades. Construction of the PG&E facility upgrades would be consistent with the Proposed Project SWPPP (or a separate SWPPP), would implement PG&E **BMP HAZ-10**, and would not alter existing drainage patterns. As such, no impact would occur.

**Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?**

**Less-Than-Significant Impact.** The Proposed Project would be constructed on flat land, primarily within existing roadways that would require minimal grading. The drainage pattern of the Proposed Project area would not be substantially altered, and the total net increase of approximately 4.1 acres of impervious surfaces would be minimal compared to the overall Proposed Project footprint. Additionally, the Proposed Project would include a stormwater management system consisting of a stormwater drainage and conveyance system and a stormwater detention system at each proposed terminal location. The size of the detention system would vary for each terminal site, depending on site-specific conditions, and may include a detention basin, underground detention vaults, or a combination thereof. The site drainage system and stormwater detention system would be designed to collect and allow infiltration of the runoff volume generated by impervious and pervious surfaces of the facility during a 100-year storm event. Thus, the Proposed Project would not result in flooding either on-site or off-site, and impacts would be less than significant.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Both existing PG&E substation sites are located on developed, paved/disturbed land, with existing stormwater collection facilities. The new water line would not result in new impervious surfaces because the trench required to place the new water line would be backfilled to the surface of the road or to existing grade where located outside of the road. The

only new impervious area for the PG&E facility upgrades would be the approximately 0.3-acre GIS enclosure proposed at the San Jose B substation adjacent to the Skyline terminal. Construction of the PG&E facility upgrades for the San Jose B substation expansion would therefore result in a minimal net increase of new impervious surfaces compared to the overall Proposed Project footprint. Additional stormwater management measures may be required to address runoff from new or redeveloped impervious areas. If additional stormwater management measures are required, it may be possible to design measures that address a combination of stormwater management requirements, as opposed to designing separate measures to comply with each set of requirements. Stormwater management measures that are required to address the minimal increase of impervious areas would be provided in the final engineering design for the PG&E facility upgrades. Thus, the Proposed Project would not increase the rate or amount of surface runoff in a manner that would result in flooding either on-site or off-site, and impacts would be less than significant.

**Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?**

**Less-Than-Significant Impact.** The City of San José manages the stormwater system in the downtown area where the proposed Skyline terminal site is located and along the majority of the proposed Grove to Skyline 320 kV DC transmission line alignment (City of San José, 2023). The proposed Grove terminal site is not served by any existing or planned public or private stormwater drainage systems; however, there are approximately 51 City-operated storm inlets within one mile of the proposed Grove terminal site, primarily concentrated along Santa Teresa Street, Bailey Avenue, and U.S. Route 101.

If groundwater is encountered during underground construction, it would be pumped into water trucks for haul off or directly into containment tanks. Containment tanks allow acceptable de-sedimentation prior to discharge and following testing for turbidity, pH, and other required parameters. The groundwater would be discharged into the storm sewer system when the water meets quality standards in accordance with applicable regulations and acquired permits. If parameters are detected in concentrations that prohibit discharge, the water would be hauled off-site. Discharge may also be applied to flat, vegetated, upland areas, used for dust control, or used in other suitable construction operations (e.g., concrete mixing) if testing determines water is suitable for such use in accordance with applicable regulations and acquired permits.

As discussed in the response above, the Proposed Project would not increase the rate or amount of surface runoff water, and runoff would be contained within the proposed drainage system and stormwater detention system. Therefore, the Proposed Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or result in substantial additional sources of polluted runoff.

Construction and O&M would require the limited use of hazardous materials, such as fuels, lubricants, cleaning solvents, and chemicals. They would all be stored, handled, and used in accordance with applicable regulations, as discussed further in **Section 3.5.11.2**, *Hazardous Materials Management* and **Section 5.9**. In addition, oil containment basins are designed to contain the oil volume of the transformers plus a 25-year, 24-hour storm event. The oil containment basins would not drain to the proposed stormwater detention system and would not be discharged to on- or off-site stormwater conveyance and drainage facilities. Therefore, construction and O&M of the Proposed Project would not provide substantial additional sources

of polluted runoff. Implementation of the Proposed Project SWPPP would further reduce impacts. Therefore, there would be less-than-significant impacts under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Construction of these upgrades would occur concurrently with construction of the remainder of the Proposed Project and for a limited duration. Both existing PG&E substation sites are located on developed, paved/disturbed land, with existing stormwater collection facilities. Construction of the PG&E facility upgrades would be consistent with the Proposed Project SWPPP (or a separate SWPPP) and would implement PG&E **BMP HAZ-10**. If dewatering is required for the PG&E facility upgrades, dewatering would be conducted in accordance with PG&E **BMPs HAZ-9** and **HAZ-11** and would comply with the associated dewatering plan. Additional stormwater management measures may be required to address runoff from new or redeveloped impervious areas, particularly at the San Jose B substation site. If additional stormwater management measures are required, it may be possible to design measures that address a combination of stormwater management requirements, as opposed to designing separate measures to comply with each set of requirements. Stormwater management measures that are required to address the increase of impervious areas would be provided in the final engineering design for the PG&E facility upgrades. Further, the existing Spill Prevention, Control, and Countermeasures (SPCC) pond would be upgraded to account for the San Jose B substation expansion to avoid spills that could result in polluted runoff. As such, less-than-significant impacts would occur.

**Impede or redirect flood flows?**

**Less-Than-Significant Impact.** The Proposed Project would be constructed on relatively flat land. As such, construction would require minimal grading, and the drainage pattern of the Proposed Project area would not be substantially altered. The proposed Skyline terminal site currently consists of a flat, highly disturbed, undeveloped lot. The proposed Grove terminal is sited on a property that is currently used as an orchard. The City of San José manages the stormwater system in the downtown area where the proposed Skyline terminal site is located and along the majority of the proposed Grove to Skyline 320 kV DC transmission line alignment. The proposed Grove terminal site and Metcalf to Grove 500 kV transmission line are not immediately adjacent to public or private storm inlets; however, there are approximately 51 City-operated storm inlets within one mile of the proposed Grove terminal site, primarily concentrated along Santa Teresa Street, Bailey Avenue, and U.S. Route 101 (City of San José, 2023).

The proposed HVDC terminal sites are not located within a 100-year FEMA floodplain. The proposed Skyline terminal site is located within a 0.2 percent annual chance of flood hazard area, and the proposed Grove terminal site is located within an area with undetermined flood hazards (FEMA, 2023a, 2023b). Both the proposed Skyline and Grove terminal facilities would include a stormwater management system consisting of a stormwater drainage and conveyance system and a stormwater detention system. Each terminal pad would be graded to drain towards the stormwater conveyance system to ultimately direct stormwater into the detention system. The stormwater detention system is designed to capture runoff from a 100-year storm event. The proposed Grove to Skyline 320 kV DC transmission line alignment overlaps minimally with areas within the 100-year FEMA floodplain, and the proposed Metcalf to Grove 500 kV transmission line is almost entirely within the 100-year FEMA floodplain; however, the proposed transmission lines

would be installed underground within existing roadways and trails. Therefore, the Proposed Project would not impede or redirect flood flows.

In addition, temporary work areas and access roads would be restored after completion of the Proposed Project, and drainage patterns would not be altered from pre-project conditions. Therefore, impacts would be less than significant under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. The existing San Jose B substation is located within a 0.2 percent annual chance of flood hazard area, and the existing Metcalf substation is located partially within a 100-year FEMA floodplain (FEMA, 2023a, 2023b). The PG&E facility upgrade sites are located on developed, paved/disturbed land, with existing stormwater collection facilities. Construction of the PG&E facility upgrades would not impede or redirect flood flows in a manner different from existing, preconstruction conditions. As such, no impact would occur.

**In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?**

**Less-Than-Significant Impact.** The Proposed Project is not located within an identified tsunami inundation or run-up area or within a basin subject to seiche. The proposed HVDC terminals are not located within a 100-year FEMA floodplain. The proposed Skyline terminal site is located within a 0.2 percent annual chance of flood hazard area, and the proposed Grove terminal site is located within an area with undetermined flood hazards (FEMA, 2023a, 2023b). In the event of an inundation of the proposed HVDC terminal sites due to flood, there is potential for pollutants to be released (see **Section 5.9**). However, the proposed HVDC terminal sites are not within high flood hazard areas where inundation would be anticipated. In addition, each terminal pad would be graded to drain towards the stormwater conveyance system to ultimately direct stormwater into the detention system. The stormwater detention system is designed to capture runoff from a 100-year storm event. In addition, oil containment basins are designed to contain the oil volume of the transformers plus a 25-year, 24-hour storm event. The oil containment basins would not drain to the proposed stormwater detention system and would not be discharged to on- or off-site stormwater conveyance and drainage facilities.

The proposed Grove to Skyline 320 kV DC transmission line alignment overlaps minimally with areas within the 100-year FEMA floodplain, and the proposed Metcalf to Grove 500 kV transmission line is almost entirely within the 100-year FEMA floodplain; however, the proposed transmission lines would be installed underground within existing roadway/trails and would not be at risk of exposing the public to pollutants during inundation. Therefore, less-than-significant impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. The existing PG&E substations are not located within an identified tsunami inundation or run-up area or within a basin subject to seiche. The existing San Jose B substation is located within a 0.2 percent annual chance of flood hazard area, and the existing Metcalf substation is located partially within a 100-year FEMA floodplain (FEMA, 2023a,

2023b). A small portion of the new water line would also be located within the 100-year floodplain; however, the water line would not utilize hazardous materials and would not be susceptible to damage from flooding because it would be located underground. Both existing PG&E substation sites are located on developed, paved/disturbed land, with existing stormwater collection facilities. Construction of the PG&E facility upgrades would not result in a new risk of pollutants due to flood conditions different from preconstruction conditions. Impacts would be less than significant.

**Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?**

**Less-Than-Significant Impact.** The Proposed Project would not conflict with or obstruct implementation of the San Francisco Bay Basin Plan nor any sustainable groundwater management plan or GWMP for the Santa Clara Subbasin as discussed in **Section 5.10.1.5**, *Groundwater Management*. As stated in **Section 3.5.12.2**, *Liquid Waste*, if groundwater is encountered, dewatering may be required. This water would be tested, filtered, and managed according to the dewatering plan developed as part of the SWPPP. **APM WQ-1** would also be implemented as needed during construction. As such, impacts would be less than significant.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Construction of the PG&E facility upgrades would be consistent with the Proposed Project SWPPP (or a separate SWPPP) and would implement PG&E **BMP HAZ-10**. Dewatering at the existing PG&E facility upgrade sites or new water line alignment, if required, would be conducted in accordance with PG&E **BMPs HAZ-9** and **HAZ-11** and would comply with the associated dewatering plan. The proposed facility upgrades would not conflict or obstruct implementation of the San Francisco Bay Basin Plan or any sustainable groundwater management plan for the Santa Clara Subbasin. As such, impacts would be less than significant.

### 5.10.5 CPUC Draft Environmental Measures

There are no CPUC Draft Environmental Measures suggested for hydrology and water quality.

### 5.10.6 Applicant Proposed Measures

The following hydrology and water quality APM would be implemented for the Proposed Project.

**APM WQ-1: Groundwater Dewatering and Discharge Measure**

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 (e.g., concrete mixing);
- 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).

### 5.10.7 PG&E Best Management Practices

PG&E would implement **BMPs HAZ-9** through **HAZ-11** as discussed in **Section 5.9**, *Hazards, Hazardous Materials, and Public Safety.*

## 5.11 LAND USE AND PLANNING

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Physically divide an established community? | | | | X |
| 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? | | | X | |

This section describes land use and planning within the area of the Proposed Project, as well as the potential impacts that could result from construction and operation and maintenance (O&M) of the Proposed Project.

### 5.11.1 ENVIRONMENTAL SETTING

#### 5.11.1.1 Land Use

The Proposed Project would be located within the City of San José and the County of Santa Clara. The Proposed Project includes two high-voltage direct current (HVDC) terminal facilities sited near the existing Pacific Gas and Electric Company (PG&E) San Jose B and Metcalf substations, and the proposed Skyline to San Jose B 115 kilovolt (kV) station tie line, Grove to Skyline 320 kV direct current (DC) transmission line, and the Metcalf to Grove 500 kV transmission line, almost exclusively within existing roads. The proposed Skyline terminal site is located in downtown San José where land use is predominantly developed with the exception of the Guadalupe River Trail and associated open space. The proposed Grove terminal site is located in the City of San José and the unincorporated County of Santa Clara where land uses are primarily vacant, open space areas with minimal development. As shown in **Figure 5.11-1**, *Existing Land Uses Map,* the land surrounding the Proposed Project, that is within the City of San José, is primarily being utilized currently for residential, commercial, and industrial uses, as well as with open space adjacent to the proposed Skyline terminal and Grove to Skyline 320 kV DC transmission line. The land surrounding the Proposed Project that is within the County of Santa Clara includes land currently utilized for agriculture, open space, and recreation adjacent to the proposed Grove terminal, Grove to Skyline 320 kV DC transmission line, and Metcalf to Grove 500 kV transmission line.

The Proposed Project is not located within a community plan area or specific plan area. However, the Proposed Project is within the sphere of influence (SOI) of the unincorporated community of San José (City of San José, 2023a; County of Santa Clara Planning Office, 2017). According to the Santa Clara County Zoning Ordinance (§1.30.030), land within the SOI of a particular city, in addition to being regulated by the County Zoning Ordinance, is subject to the land use policies of that city's General Plan. Although the California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project and the Proposed Project is not subject to local land use and zoning regulations or other permits (see **Section 5.11.2**, *Regulatory Setting* for more information), both the County of Santa Clara and City of San José land use and zoning designations are discussed here for informational purposes.

The City of San José General Plan, San José General Plan 2040 GIS Mapping Tool, and County of Santa Clara General Plan Land Use Map were reviewed to identify the land use designations associated with the Proposed Project. **Figure 5.11-2**, *General Plan Land Uses Map* illustrates the designated land uses for the Proposed Project and surrounding area. **Table 5.11-1**, *General Plan Land Use Designations Within the Proposed Project* lists the City and County land uses designated for the areas on which the HVDC terminals are proposed and where the PG&E substation upgrades are proposed. As shown in **Figure 5.11-2**, the proposed transmission line corridors traverse numerous commercial, industrial, open space, residential, agriculture, mixed use, open hillside, and recreation land use designations. As mentioned in **Section 3.2.2**, *Proposed Project System*, the proposed transmission lines would be located underground almost exclusively within existing roadway rights-of-way (ROWs).

**Table 5.11-1: General Plan Land Use Designations Within the Proposed Project**

| Land Use Designation | Permitted Uses |
|---|---|
| ***City of San José*** | |
| Downtown (DT) | Office, retail, service, residential, and entertainment uses in downtown. |
| Commercial Downtown (CD) | Office, hotel, retail, service, and entertainment uses in downtown. |
| Agriculture (A) | Grazing, dairying, raising of livestock, feedlots, orchards, row crops, nursery stock, flower growing, ancillary residential uses, ancillary commercial uses such as fruit stands, and the processing of agricultural products. |
| Combined Industrial/Commercial (CIC) | Commercial, office, or industrial developments or a compatible mix of these uses. |
| Open Hillside (OH) | Public and private conservation uses that preserve open space and recreation and allow limited development; including single-family dwellings, private recreation, low-intensity institutional or commercial uses with most of the site preserved as open space, very-low intensity agricultural uses such as grazing or tree farming, or privately owned open space/habitat preserves. |
| ***County of Santa Clara*** | |
| Agriculture Large Scale | Agricultural uses, including grazing, dairying, raising of livestock, feedlots, orchards, row crops, nursery stock, flower growing, ancillary residential uses, ancillary commercial uses such as fruit stands, and the processing of agricultural products. |
| Regional Parks | Recreational uses, open space, trails. |
| Major Gas and Electric Utilities | This land use designation indicates the location of existing major gas and electric utilities. There are no permitted uses for this land use type listed in the County of Santa Clara General Plan. |
| Sources: City of San José, 2024, 2012; County of Santa Clara, 1994, 2016 | |

The City of San José Interactive Zoning Map and the County of Santa Clara Zoning Atlas were reviewed to identify the zoning designations of the Proposed Project. **Figure 5.11-3**, *Zoning Designations Map* illustrates the City and County zoning designations within the vicinity of the Proposed Project. **Table 5.11-2**, *Zoning Designations Within the Proposed Project* lists the zoning designations for the areas on which the HVDC terminals are proposed and where the PG&E substation upgrades are proposed. As shown in **Figure 5.11-3**, the proposed transmission line

corridors associated with the Proposed Project traverse numerous commercial, industrial, open space, residential, agriculture, and mixed-use zoning designations

| Table 5.11-2: Zoning Designations Within the Proposed Project | |
|---|---|
| **Zoning Designation** | **Permitted Uses** |
| ***City of San José*** | |
| Downtown Primary Commercial (DC) | Offices and financial services, general retail, small, certified farmers' markets and neighborhood agriculture, education and training, entertainment and recreation, food services, general services, health, and veterinary services, public, quasi-public and assembly uses, recycling uses, residential, transportation and communication, utilities and power generation, and vehicle related uses. |
| Planned Development Agriculture Base District (A[PD]) | Agriculture and resource uses, education and training, entertainment, and recreation, residential, transportation and utilities, and utilities and electric power generation. |
| Combined Industrial/Commercial (CIC) | Commercial or industrial uses, or a compatible mixture of the two uses such as laboratories, manufacturing, research and development, warehouse facility, small certified farmers' markets and neighborhood agriculture, instructional art studios, private instruction/personal enrichment, entertainment and recreation, food services, general retail, general services, health and veterinary services, office and financial services, emergency residential shelter, utilities and power generation, and vehicle related uses. |
| | |
| ***County of Santa Clara*** | |
| Exclusive Agriculture (A-40Ac)[1] | Agricultural uses with minimum parcel sizes of 40 acres. |
| Exclusive Agriculture (A-20Ac-sr) [1] | Agricultural uses with minimum parcel sizes of 20 acres. The "-sr" combining district applies to all designated scenic roads in the unincorporated County of Santa Clara. |

Notes:
[1] While these zoning designations are listed in the current database accessed from the County of Santa Clara, a new chapter was added to the County Zoning Ordinance in 2021 for the Coyote Valley Climate Resilience District that requires "-cv" be added to the zoning designation for properties that are located within this new zoning district (Chapter 3.95: Coyote Valley Climate Resilience Combining District, Sections 3.95.010 – 3.95.050). The Proposed Project area is located within this district; therefore, the zoning designation should also include A-40Ac-cv and A-20Ac-sr-cv. **Section 5.11.2** provides a description of the Coyote Valley Climate Resilience District.

Sources: City of San José, 2023b; County of Santa Clara Planning Office, 1994, 2012, 2022; County of Santa Clara, 2023

### 5.11.1.2 Special Land Uses

Agriculture plays an important role in the Santa Clara Valley; therefore, designated farmland can be considered a special land use. Designated farmland as well as an agricultural preserve are located within and near the Proposed Project area (County of Santa Clara, 2024). These special land uses and associated impacts are discussed in **Section 5.2**, *Agriculture and Forestry Resources.* There are no other special land uses, such as land administered by government agencies or private conservation organizations or national landmarks, in the Proposed Project area; therefore, no mileposts are provided.

**Land administered by federal, state, or local agencies, or private conservation organizations**

The location of the Proposed Project does not fall within land administered by federal, state, or local agencies, or private conservation organizations.

**Designated coastal zone management areas**

The Proposed Project does not fall within a designated coastal zone management area (California Coastal Commission [CCC], 2019).

**Designated or proposed candidate National or State Wild and Scenic Rivers crossed by the project**

The Proposed Project does not traverse designated or proposed Natural or State Wild and Scenic Rivers (National Park Service, 2021).

**National landmarks**

The Proposed Project does not have any national landmarks within the Proposed Project area. The closest national landmark is the Our Lady of Guadalupe Mission Chapel in the City of San José, located approximately three miles east of the proposed Skyline terminal site (National Park Service, 2023).

### 5.11.1.3 Habitat Conservation Plans

The Proposed Project is located in the habitat study area of the Santa Clara Valley Habitat Conservation Plan (HCP) (County of Santa Clara, et al., 2012). The HCP was established by the County of Santa Clara, City of San José, City of Morgan Hill, City of Gilroy, Santa Clara Valley Water District, and Santa Clara Valley Transit Authority. The objective of the HCP is to maintain a reserve system that focuses on preservation and enhancement actions that provide for the protection of species, natural communities, and ecosystems, while providing a means to standardize the mitigation and compensation requirements for species listed under the Federal Endangered Species Act (ESA) and California Endangered Species Act from implementation of the covered activities (urban development, instream capital projects, instream operations and maintenance, rural capital projects, rural operation and maintenance, rural development, and conservation strategy implementation).

Section 10 of the Federal ESA allows for the creation of HCPs to protect listed and candidate species in connection with the issuance of an incidental take permit for federally listed species. PG&E's San Francisco Bay Area O&M HCP ("Bay Area O&M HCP") covers O&M activities for PG&E's electric and gas transmission and distribution systems within 34 counties in California. In 2017, PG&E began implementation of the Bay Area O&M HCP, which covers the nine counties that surround San Francisco Bay, including the County of Santa Clara (PG&E, 20217). Although construction of the Proposed Project is not a "covered activity" under the plan, the Proposed Project area is located within the geographical boundaries of the Bay Area O&M HCP. The potential applicability of these HCPs to the Proposed Project is further discussed in **Section 5.4**, *Biological Resources*.

## 5.11.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

### 5.11.2.1 Land Use and Planning Regulatory Setting

**Federal**

***Habitat Conservation Plans***

As discussed above, the Proposed Project is located within the boundaries of the Santa Clara Valley HCP and the PG&E Bay Area O&M HCP. The applicability of these plans is discussed in **Section 5.4**.

**State**

***Assembly Bill 948: Coyote Valley Conservation Program***

California Governor Gavin Newson signed Assembly Bill (AB) 948 on September 27, 2019, formally recognizing the Coyote Valley Program Area as a resource of Statewide importance and creating opportunities for its protection and conservation. AB 948 authorizes the Santa Clara Valley Open Space Authority to create a Coyote Valley Conservation Program. This program would build on existing recreation and conservation programs and engage in land-use decisions around Coyote Valley. The Santa Clara Valley Open Space Authority is currently in a planning process to develop the Coyote Valley Conservation Areas Master Plan (Santa Clara Valley Open Space Authority, 2023).

**Local**

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, "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 the City of San José and the County of Santa Clara do not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section includes a summary of local land use and planning-related policies, plans, or programs for informational purposes. Although LS Power Grid California, LLC ("LS Power") is not subject to local discretionary permitting, ministerial permits would be secured as appropriate.

***County of Santa Clara Municipal Code***

Utilities are an allowable land use for the Exclusive Agriculture rural base district, provided they are permitted with architecture and site approval (ASA) (Section 2.20.020). In addition, the ordinance code states that utility structures and facilities may be exempt from local zoning

regulations if they are established by a government agency. There may also be federal or state laws that provide exemptions for certain types of utilities.

The CPUC has preemptive power under the California Constitution (Article XII, Section 8) over local jurisdictions with respect to regulation of public utilities and electric utility siting. The CPUC, therefore, has ultimate decision-making authority over the land use decisions for the Proposed Project.

*Chapter 3.95: -cv Coyote Valley Climate Resilience Combining District*

On December 14, 2021, the Board of Supervisors approved a zoning overlay for the Coyote Valley specifically intended to protect and invest in regional climate resilience (County of Santa Clara, 2021). The County's new Coyote Valley Climate Resilience District establishes a zoning overlay that will help to retain and promote the natural characteristics of this area. The proposed amendments to the County's Zoning Map and Zoning Ordinance have been designed to address climate threats, namely the continued loss of the prime agricultural lands that serve as the resource base for nature-based solutions to climate resilience in Coyote Valley. Specifically, the proposed Zoning Map amendments would apply the "-cv" combining district designation to all unincorporated properties currently zoned Exclusive Agriculture that are located between the City boundaries of San José to the north and Morgan Hill to the south. Zoning for the subject properties would change from A-40Ac and A-20Ac to A-40Ac-cv and A-20Ac-cv, respectively. The Coyote Valley Climate Resilience District establishes property development standards for all new development within the boundaries, particularly focused on limited residential development in agricultural areas.

While the Proposed Project area is located within the Coyote Valley Climate Resilience District, as noted above utilities are an allowable land use and the CPUC has the ultimate authority over land use decisions for the Proposed Project.

### *County of Santa Clara General Plan*

The County of Santa Clara General Plan was adopted on December 20, 1994 (County of Santa Clara, 1994). The strategies and policies outlined in the General Plan at the Countywide level acknowledge the importance of agriculture to the County as a whole and the need for multi-jurisdictional efforts to continue to preserve agricultural lands and the rural character of agricultural areas. The Proposed Project is located within lands designated in the County of Santa Clara General Plan as Agriculture Large Scale and zoned Exclusive Agriculture with Combining District.

The following land use policies contained in the County of Santa Clara General Plan are provided for informational purposes:

| | |
|---|---|
| **Goal 6** | Productive Agriculture |
| **Goal 6.1** | Areas of prime agricultural soils retained in productive agricultural use. |
| **Policy C-GD 2** | Urban development shall occur only within cities' urban service areas (USAs) and under City jurisdiction. The County shall not allow urban development on unincorporated lands outside cities' urban service areas. |

**Policy C-GD 3** Urban service areas should generally include only those areas suited for urban development. Development of such areas should be:
a. reasonably serviceable with public facilities and services;
b. relatively free from risks associated with natural hazards;
c. without substantial adverse environmental impact;
d. not likely to create severe off-site impacts on surrounding areas; and
e. without cumulative adverse impacts on the County's water supply watersheds or any other natural resource.

**Policy C-GD 17** Planning for Coyote Valley's future development should provide for the following in the area of resource conservation:
a. permanent preservation of hillsides in open space;
b. retention of a greenbelt of non-urban uses and densities between San José and Morgan Hill; and
c. protection of a scenic corridor adjacent to Highway 101.

**Policy R-RC 61** Allowable land uses in exclusive agricultural areas shall be limited to:
a. agriculture and ancillary uses;
b. uses necessary to directly support local agriculture; and
c. other uses compatible with agriculture which clearly enhance the long-term viability of local agriculture and agricultural lands.

**Policy R-LU 10** Lands designated 'Agriculture' include those having Class I, II, and III soils which generally have been in agricultural production and where agricultural uses are most appropriate.

**Policy R-LU 14** For areas designated 'Agriculture-Large Scale,' minimum parcel sizes shall be no less than 40 acres.

**Policy R-LU 15** For areas designated 'Agriculture-Medium Scale,' minimum parcel sizes shall be no less than 20 acres.

**Policy R-LU 73** The County's major gas and electric distribution system should be:
1. adequate to meet the projected energy needs of the people of Santa Clara County; and
2. compatible with the environmental resources and scenic qualities of the County.

**Policy R-LU 77**[1] All proposals for new major transmission lines and distribution facilities shall require an application for a General Plan Amendment to the Gas & Electric Utilities Plan map. Proposals shall be evaluated for conformance with the policies of the General Plan concerning major gas and electric utilities.
1. New major transmission lines are not required to secure a use permit in addition to a General Plan Amendment.

[1] The County of Santa Clara General Plan Policy R-LU 77 states that a General Plan Amendment is required to be included in proposals for new major transmission lines and distribution facilities; however, the CPUC has sole jurisdiction over the siting and design of the Proposed Project. The County policy is not applicable to the Proposed Project, and a County of Santa Clara General Plan Amendment is therefore not proposed. However, this policy has been provided for informational purposes.

2. New distribution and transmission facilities such as substations must secure use permits, in addition to a General Plan Amendment, unless the land on which the facility if proposed is not within the regulatory jurisdiction of the County.

**Policy R-LU 149** The Monterey Highway Use Permit Area shall consist of properties with access to and fronting on Monterey Road from Metcalf Road south to the County boundary, excluding the Urban Service Areas of the cities of San José, Morgan Hill, and Gilroy and lands within the San Martin Commercial and Industrial Use Permit Areas.

**Policy R-LU 150** While the predominant land use in the rural unincorporated areas of South County is agriculture, the County recognizes that there are along Monterey Road, within the areas designated 'Agriculture' and 'Rural Residential,' established, non-agricultural land uses serving the South County community. It is the policy of the County that they continue within the 'Agriculture' and 'Rural Residential' land use designations so that the needs of the South County may be served, provided that their legal status is secured in conformance with the following policies.

**Policy R-LU 151** Legally established land uses fronting Monterey Highway, south of Metcalf Road, in areas designated 'Agriculture' and 'Rural Residential' shall continue as allowable uses by right or by use permit, depending on the regulations governing their original establishment. To protect the area from undesirable strip commercial development, additional service uses will not be extended along Monterey Road.

**Policy R-GD 3** Land uses and development permitted under County jurisdiction shall be consistent with the following major County policies:

a. conservation of natural resources;
b. avoidance of natural hazards and the prevention of pollution which could pose a threat to public health, safety, and welfare;
c. minimizing demand for public services and costs to the general public of providing and maintaining services;
d. preservation of rural character, rural lifestyle opportunities, and scenic resources;
e. preservation of agriculture; and
f. preventing unwanted or premature development that would preclude efficient conversion to urban uses and densities in areas suitable and intended for future annexation.

**Policy R-GD 7** In rural unincorporated areas, if there is an unpreventable areawide problem which can only be solved by extension of services by special district, assessment district, or private utility, then this form of service may be approved, with the following restrictions:

a. the amount of increased service capacity will not exceed the identified need and the planned level of development; and
b. the level of service capacity is consistent with that of other services provided or planned for the area.

**Policy SC 14.9** The cities should use their policies for urban service area extensions and utility extensions to guide urban growth away from long-term agricultural areas.

***City of San José Municipal Code***

Pursuant to San José Municipal Code § 20.70 Downtown Zoning Regulations, temporary stand-by/back-up generators are a permitted use; stand-by/back-up facilities that do not exceed noise or air standards are an administrative use and allowed with the compliance of an administrative use permit; and private electrical power generation facilities are a conditional use requiring planning commission approval. Conditional Uses may be allowed, as an independent use, but only upon issuance of and in compliance with a conditional use permit approved by the Planning Commission, or City Council on appeal, as set forth in Chapter 20.100 (City of San José, 2023c).

Pursuant to San José Municipal Code § 20.20 Open Space and Agricultural Zoning Districts, utility facilities are allowed as a conditional use in compliance with a conditional use permit. In addition, stand-by/back-up facilities that do not exceed noise or air standards require a special use permit, and stand-by/back-up facilities that do exceed noise or air standards require a conditional use permit.

Pursuant to San José Municipal Code § 20.80.1810, the minimum development criteria for all utility structures include:

- Utility structures shall be located in a private, public utility, or public service easement.
- Sight lines shall remain unobstructed at intersections or driveways consistent with the California Department of Transportation ("Caltrans") Traffic Safety Manual on file with the director of public works.
- Utility structures shall be enclosed or screened, to the extent possible, to match existing fencing, screening, or landscaping.
- Utility structures shall be constructed and treated with appropriate materials which discourage or repel graffiti.
- Utility structures shall be sited to avoid impacts on ordinance sized trees.
- No utility structure shall exceed one hundred ten cubic feet or a maximum height of five and one-half feet above grade, exclusive of meter panels or pedestals.

Pursuant to San José Municipal Code § 13.32, the City of San José maintains the urban landscape by controlling the removal of ordinance trees on private property. Ordinance trees are defined as trees exceeding 38 inches in circumference, or approximately 12 inches in diameter, at a height of 4.5 feet above the ground. Ordinance trees are generally mature trees that help beautify the City, slow the erosion of topsoil, minimize flood hazards, minimize the risk of landslides, increase property values, and improve local air quality. A tree removal permit is required from the City of San José for the removal of ordinance trees.

However, the CPUC has preemptive power under the California Constitution (Article XII, Section 8) over local jurisdictions with respect to regulation of public utilities and electric utility siting. The CPUC, therefore, has ultimate decision-making authority over the land use decisions for the Proposed Project.

### *City of San José General Plan*

The General Plan was adopted on November 1, 2011, and amended May 12, 2023 (City of San José, 2024). Below are select goals, actions, and policies that are relevant to the Proposed Project.

The General Plan provides Measurable Environmental Sustainability (MS) goals for the City of San José through 2040, establishing measurable standards for the achievement of sustainable development practices. The following MS goals and action items are provided for informational purposes of sharing the City of San José's energy conservation and renewable energy goals.

**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.

**Action MS-2.8** Develop policies which promote energy reduction for energy-intensive industries. For facilities such as data centers, which have high energy demand and indirect greenhouse gas emissions, require evaluation of operational energy efficiency and inclusion of operational design measures as part of development review consistent with benchmarks such as those in EPA's EnergyStar Program for new data centers. Also require consideration of distributed power production for these facilities to reduce energy losses from electricity transmission over long distances and energy production methods such as waste-heat reclamation or the purchase of renewable energy to reduce greenhouse gas emissions.

**Goal MS-15** **Renewable Energy.** Receive 100 percent of electrical power from clean renewable sources (e.g., solar, wind, hydrogen) by 2022 and to the greatest degree feasible increase generation of clean, renewable energy within the City to meet its own energy consumption needs.

**Policy MS-15.4** Promote local innovation, research, development, and deployment of renewable energy and energy efficiency technologies.

**Policy MS-15.5** Showcase and apply innovative technologies within San José, including developments that achieve maximum energy efficiency or net zero energy, and renewable energy systems that generate energy equal to or greater than that consumed on site.

**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.

**Action MS-16.6** Create partnerships and governance structures that improve the overall efficiency and reliability of energy production and supply.

The General Plan acknowledges construction and maintenance of infrastructure is necessary to support existing and planned land uses and to achieve Environmental Leadership, Innovative Economy, Healthful Neighborhoods, and other City goals. The following Infrastructure (IN) goals and policies are provided for informational purposes and the general provision of infrastructure.

**Goal IN-1** **General Provision of Infrastructure.** Provide and maintain adequate water, wastewater, stormwater, water treatment, solid waste and recycling, and recycled water infrastructure to support the needs of the City's 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** **Infrastructure Management.** 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 following relevant agricultural Land Use goals and policies from the City of San José were reviewed and provided below for informational purposes. **Section 5.2** provides additional details on agriculture.

**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.

**Policy LU-12.3** Protect and preserve the remaining farmlands within San José's sphere of influence that are not planned for urbanization in the timeframe of the Envision General Plan through the following means:

- Limit residential uses in agricultural areas to those which are incidental to agriculture.
- Restrict and discourage subdivision of agricultural lands.
- Encourage contractual protection for agricultural lands, such as Williamson Act contracts, agricultural conservation easements, and transfers of development rights.
- Prohibit land uses within or adjacent to agricultural lands that would compromise the viability of these lands for agricultural uses.
- Strictly maintain the Urban Growth Boundary in accordance with other goals and policies in this Plan.

**Policy LU-12.4** Preserve agricultural lands and prime soils in non-urban areas in order to retain the aquifer recharge capacity of these lands.

**Goal LU-20** **Rural Agriculture.** Provide and protect sufficient agricultural land to facilitate local food production, to provide broad community access to healthful foods, to add to a distinct community image, and to promote environmental, fiscal, and economic benefits of rural agricultural lands.

**Policy LU-20.1** Protect and preserve the remaining farmlands within San José's sphere of influence that are not planned for urbanization in the timeframe of the Envision General Plan, such as mid- and south Coyote Valley, through the following means:

1. Strongly discourage conversion of agricultural lands outside the Urban Growth Boundary to non-agricultural uses.
2. Limit residential uses in agricultural areas to those which are incidental to agriculture.
3. Prohibit subdivision of agricultural lands unless it can be established that the subdivision would not reduce the overall agricultural productivity of the land and that viable agricultural operations would be sustained.
4. Encourage contractual protection for agricultural lands, such as Williamson Act contracts, agricultural conservation easements, transfers of development rights, or other property tax relief measures as incentives for preservation of these lands.
5. Restrict land uses within and adjacent to agricultural lands that would compromise the agricultural viability of these lands. Require new adjacent land uses to mitigate any impacts on the use of agricultural lands.
6. Require ancillary non-agricultural land uses on agricultural lands to be ancillary to and compatible with agricultural land uses, agricultural production, and the rural character of the area, and to enhance the economic viability of agricultural operations.

**Policy LU-20.2** Preserve agricultural lands and prime soils in non-urban areas in order to provide local and regional fresh food supplies, reduce dependence on

foreign products, conserve energy, and retain the aquifer recharge capacity of these lands.

**Policy LU-20.9** Explore use of agricultural easements, transfer/purchase of development rights, or other options to keep Mid-Coyote Valley as permanent agriculture.

**Policy LU-20.10** Study and make revisions to the General Plan and Zoning Ordinance to allow compatible commercial agriculture supportive uses in Coyote Valley.

**Policy LU-20.11** Conduct a study of the Monterey Road Corridor through North, Mid-, and South Coyote Valley to consider appropriate non-residential uses for properties on the east side of Monterey Road that would be compatible with the Coyote Creek Park Chain, provide more flexibility of use and could also promote agricultural and nature based tourism or commercial activities.

**Policy LU-20.12** Explore establishment of a climate resilience credits program to support further conservation actions in Coyote Valley and facilitate development in urbanized areas of San José.

**Policy LU-20.13** Explore establishing a Farmland Security Zone in Coyote Valley to support rural agriculture.

**Policy LU-20.14** Shift the Urban Service Area boundary north in Coyote Valley in the future, and prohibit the shifting of the Urban Service Area boundary south in Coyote Valley. Properties designated for urban uses should remain within the Urban Service Area."

***Coyote Valley Corridor Study***

Historically, Coyote Valley served as an urban reserve for the City of San José (City of San José, 2023d). Starting in the 1960 General Plan, the City of San José planned for industrial growth in North Coyote Valley, and pre-recession plans envisioned future development of 50,000 jobs and 25,000 housing units for the area. The City of San José General Plan, adopted in 2011, continued to designate Mid-Coyote Valley as an urban reserve, not planned for development through 2040. With the passage of AB 948, the City Council voted in 2021 to change the City of San José General Plan and zoning designations of properties within Coyote Valley to Agriculture to protect the region from future urban development. Additionally, the City of San José is conducting a study of Coyote Valley, focusing specifically on properties located on the east side of Monterey Road, entitled the *Coyote Valley Corridor Study*. The objective of this study is to analyze existing and potential new uses for the properties located along the east side of Monterey Road in Coyote Valley, which are compatible with or in direct support of the region's agriculture and open space resources. The result of the study will inform future proposed amendments to the City of San José General Plan as to allowed uses and development regulations contained in the City of San José General Plan and the Zoning Ordinance.

Preliminary insights gained by the City of San José during the development of the *Coyote Valley Corridor Study* include the observation that properties east of Monterey Road are unique in comparison to the agricultural lands to the west of Monterey Road in that they interface with the rail line, creek, and freeway—all of which create barriers for wildlife and traffic circulation

(humans/goods). Property owners in the area have expressed that traditional/historic agriculture uses along the corridor have faced significant challenges over the years. The City of San José's existing agricultural and open space development regulations do not adequately address modern farming operations and only allow a limited number of other compatible uses. Therefore, the corridor study will recognize that the distinct character of this portion of Monterey Road and Coyote Valley could potentially support uses which are more industrial or commercial in nature that would not otherwise be appropriate in the other agricultural zones within the City's boundaries or SOI.

### 5.11.3 IMPACT QUESTIONS

#### 5.11.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to land use and planning come from the California Environmental Quality Act (CEQA), Appendix G Environmental Checklist. According to the CEQA Environmental Checklist, a project may cause a potentially significant impact if it would:

- Physically divide an established community; or
- 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.

#### 5.11.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing Proponent's Environmental Assessments* (CPUC, 2019), there are no additional CEQA Impact Questions required for land use and planning.

### 5.11.4 IMPACT ANALYSIS

#### 5.11.4.1 Land Use and Planning Impact Analysis

**Would the project physically divide an established community?**

**No Impact.** The Proposed Project includes the development of two new HVDC terminal sites and associated transmission lines. The proposed Skyline terminal would be located within urban, built-up land within the downtown area of the City of San José, and the proposed Grove terminal would be located within agricultural land uses in the unincorporated County of Santa Clara. There is currently no public access (e.g., vehicular or pedestrian) located within either of the proposed HVDC terminal site areas. The proposed Grove to Skyline 320 kV DC transmission line would be located underground within existing roadway ROWs in both the City of San José and the unincorporated County of Santa Clara. Approximately one mile of the proposed 1.2-mile Metcalf to Grove 500 kV underground transmission line would be located within Coyote Ranch Road, and approximately 0.2 mile would traverse undeveloped and natural areas, including undisturbed woodland habitat and the Coyote Creek Trail. As mentioned in **Section 3.5.8.2**, *Traffic Control,* construction of the proposed transmission lines would include trenching activities, which would result in lane closures causing potential traffic detours. However, these restrictions would be temporary and, once installed, would operate with minimal traffic disruption after initial construction activities. Therefore, the proposed transmission lines would not physically divide an established community.

The proposed Grove terminal is located within an agricultural area that is approximately 0.65 mile south of the existing PG&E Metcalf substation. The proposed Grove terminal site contains existing agricultural uses consisting of an active orchard with a perimeter fence, well, deteriorating outbuilding, and a radial electric distribution line. The existing orchard does not allow public access within the site and is, therefore, not an established community. The proposed Grove terminal would be within the boundaries of the Proposed Project area and would not allow public access. As such, the proposed Grove terminal would not physically divide an established community.

The proposed Skyline terminal would be located adjacent to the existing PG&E San Jose B substation and would, therefore, be consistent with the existing character of the Proposed Project area and would not remove existing access from an established community. As such, the development of the new Proposed Project facilities would not physically divide an established community or otherwise impede pedestrian or vehicular access to community features or services. Therefore, no impacts would occur under this criterion.

**PG&E Facility Upgrades**

In order to integrate the proposed HVDC terminals and new Grove to Skyline 320 kV DC transmission line into the existing transmission system, PG&E would be required to perform upgrades at two existing substations: modifications to the Metcalf substation and expansion of the San Jose B substation (refer to **Section 3.3.5**, *Other Potentially Required Facilities*). These upgrades would occur within and adjacent to the existing substation facilities. The PG&E facility upgrades would also include a new water line to the existing Metcalf substation, which would extend approximately 800 feet north-northeast from the Metcalf substation and connect to an existing 16-inch water main near the corner of Metcalf Road and Malech Road, which is served by the Great Oaks Water Company. The new water line would be installed underground on a combination of PG&E property, Metcalf Road, Malech Road, and Caltrans property (U.S. Route 101). Therefore, the upgrades would be consistent with the existing character of the area and would not divide an established community. No impacts would occur under this criterion.

**Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?**

**Less-than-Significant Impact.** The Proposed Project would include the development of two HVDC terminal sites and associated transmission lines that would connect with the existing San Jose B and Metcalf substations, which are in the City of San José and the County of Santa Clara. Because the CPUC has regulatory authority over the Proposed Project, the Proposed Project is not under the discretionary jurisdiction of the City of San José or the County of Santa Clara and, therefore, is not subject to local agency regulations. Nonetheless, the Proposed Project would not conflict with the City of San José General Plan or the County of Santa Clara General Plan. Regarding zoning, the Proposed Project is consistent with the City of San José Municipal Code, and partially conflicts with the County of Santa Clara Municipal Code, as summarized below.

Portions of the Grove terminal and the Metcalf to Grove 500 kV transmission line would be located within the County of Santa Clara, within the City of San José sphere of influence. Pursuant to the County of Santa Clara Municipal Code, utilities are an allowable land use for the Exclusive Agriculture rural base district, being permitted with ASA (Section 2.20.020). The County of Santa

Clara General Plan likewise provides that "In rural unincorporated areas, if there is an unpreventable areawide problem which can only be solved by extension of services by private utility, then this form of service may be approved." As mentioned in **Section 3.0**, *Proposed Project Description*, the Proposed Project was developed to ensure the reliability of the California Independent System Operator (CAISO)-controlled grid in the South Bay area, including within the County of Santa Clara. The Proposed Project would provide system reliability benefits for the Greater Bay Area.

The portion of the Proposed Project located within the County of Santa Clara is situated in the Exclusive Agriculture zones (A-40Ac and A-20Ac-sr) and the "-cv" Coyote Valley Climate Resilience Combining District. The "-sr" combining district applies to all designated scenic roads in the unincorporated County of Santa Clara and requires additional design review for proposed projects. The "-cv" Coyote Valley Climate Resilience Combining District is intended to minimize the impacts of new development through supplemental development standards and use requirements, in order to preserve Coyote Valley as a greenbelt area intended for long-term agricultural uses and climate resilience. The development standards for the "-cv" combining district allow a maximum lot coverage of 7,500 square feet, a maximum development area of one acre, and a maximum development area with onsite agriculture of two acres. The total development area at the proposed Grove terminal is approximately 7.4 acres, which would be inconsistent with the County of Santa Clara Municipal Code development standards for the "-cv" combining district. However, the proposed Grove terminal site is a small portion of the overall "-cv" combining district area, which includes large contiguous undeveloped and agricultural parcels to the south and southeast. The proposed approximately 13.6-acre parcel for the Grove terminal is not connected to other active agricultural or open space areas and is instead bounded by industrial/commercial and residential uses to the north; Coyote Creek, U.S. Route 101, and Coyote Creek Parkway to the east; residential areas to the south; and Monterey Road to the west. In addition, the City of San José is currently analyzing existing and potential new uses for the properties located along the east side of Monterey Road in Coyote Valley because of this distinct character of the area, including considering the possibility of allowing uses which are more industrial or commercial in nature (City of San José, 2023d). The Proposed Project would also retain approximately 150 orchard trees onsite and implement a landscape plan to preserve vegetation, which aligns with the intent of the "-cv" combining district. Therefore, while the Proposed Project would not be consistent with the "-cv" Coyote Valley Climate Resilience Combining District, significant environmental impacts due to a conflict with land use policies are not anticipated.

It should be noted that the existing 47-acre PG&E Metcalf substation is also zoned as Exclusive Agriculture (A-20Ac-sr-cv) within the "-cv" Coyote Valley Climate Resilience Combining District. The proposed Grove terminal is sited as adjacent as possible to the existing PG&E Metcalf substation to avoid the conversion of larger, contiguous agriculture and open space parcels, and to consolidate the electric transmission facilities. Proposed development at the Grove terminal would therefore be consistent with the existing infrastructure established in this portion of the Coyote Valley region and "-cv" combining district. As noted above, the CPUC ultimately has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Public utilities are directed to consider local regulations and consult with local agencies, but City and County regulations are not applicable as the City of San José and the County of Santa Clara do not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is ultimately not subject to local land use and zoning regulations or discretionary permits.

The San José Municipal Code § 20.20 allows utility facilities within Open Space and Agricultural Zoning Districts, in which portions of the Proposed Project are located, subject to approval of a conditional use permit by the City Planning Commission. The proposed Skyline terminal site is zoned for Downtown Primary Commercial, which allows for utilities and power generation-related uses (City of San José, 2023c). Therefore, the Proposed Project would be consistent with the City of San José Municipal Code.

The proposed transmission lines would be located underground within existing ROWs in both the City of San José and the unincorporated County of Santa Clara. As discussed in **Section 3.5.8.2**, construction of the proposed transmission lines within the roadways and a portion of the Coyote Creek Trail would result in temporary lane closures and potential traffic detours, the locations of which would be identified in the Traffic Control Plan that LS Power would develop in consultation with the applicable agencies. Once operational, the proposed transmission lines would be located underground, and all road surfaces would be restored to their original condition in compliance with local requirements. There is also an approximately 0.2-mile segment of the proposed Metcalf to Grove 500 kV transmission line located outside of the public roadway, which would traverse the Coyote Creek Trail and undisturbed natural areas. Following construction, the temporarily disturbed areas of the trail would be restored to preconstruction conditions in accordance with Applicant Proposed Measure (**APM) REC-3**.

As such, proposed uses of the Proposed Project are compatible with the County of Santa Clara Municipal Code and San José Municipal Code, which would require specific permits to be obtained prior to construction. The discretionary actions from these local agencies is replaced by the CPUC's Certificate of Public Convenience and Necessity (CPCN) process, wherein the CPUC would consider local land use regulations as part of its overall decision on the Proposed Project. The Proposed Project would not contribute to operational traffic to local roadways because construction of the transmission lines would be temporary, and the roadways would be returned to original conditions upon completion of the Proposed Project. The Proposed Project would not be detrimental to the character of the development in the immediate neighborhood because it would be developing a similar electric utility infrastructure site next to, or nearby, an existing substation. These changes would not create an incompatible land use with existing uses.

For the reasons mentioned above, the Proposed Project is consistent with the policies of this regulatory framework and would not adversely affect public health, safety, or general welfare. Therefore, there would be no impacts under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Therefore, the upgrades are consistent with the existing character of the area and would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. No impacts would occur under this criterion.

### 5.11.5 CPUC DRAFT ENVIRONMENTAL MEASURES

There are no CPUC Draft Environmental Measures suggested for land use and planning.

### 5.11.6 APPLICANT PROPOSED MEASURES

No Applicant Proposed Measures for land use and planning would be implemented for the Proposed Project.

### 5.11.7 PG&E BEST MANAGEMENT PRACTICES

No land use Best Management Practices have been included for PG&E's scope of work.

## 5.12 MINERAL RESOURCES

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| 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? | | | X | |
| 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? | | | X | |

This section describes the mineral resources in the area of the Proposed Project, as well as the potential impacts resulting from construction and operation and maintenance (O&M) of the Proposed Project.

### 5.12.1 ENVIRONMENTAL SETTING

#### 5.12.1.1 Mineral Resources

This section describes the extent of mineral resources in the vicinity of the Proposed Project. Pursuant to the California Surface Mining and Reclamation Act of 1975 (SMARA), certain mineral resources within geographical areas are considered to have regional significance and are designated as "Sectors". Minerals known to exist in the City of San José and the County of Santa Clara include construction aggregate deposits of cement, sand, gravel, crushed rock, clay, and limestone (City of San José, 2024; County of Santa Clara, 1994). All of these have provided building materials to the construction industry. There are a number of mineral resource deposits in the County of Santa Clara which are of regional or Statewide significance, and eight of those are currently being quarried (County of Santa Clara, 1994). None of the mineral resource deposits are located within the Proposed Project area; however, the Communications Hill area (identified as Sector EE on **Figure 5.12-1**, *Mineral Resources Map*) is adjacent to a portion of the proposed Grove to Skyline 320 kilovolt (kV) direct current (DC) transmission line that is near Hillsdale Avenue and the Southern Pacific Railroad (City of San José, 2024; County of Santa Clara, 1994). The Communications Hill area in the City of San José is known to contain mineral deposits of regional significance.

As shown in **Figure 5.12-1**, Mineral Resource Zones (MRZ) 1, 2, 3, and 4 are all mapped within 0.5 mile of the Proposed Project area (refer to **Table 5.12-1**, *Mineral Resource Zone Definitions* for a description of each resource zone). Sector EE is considered to be MRZ-2 (Stinson et al., 1983). The proposed Skyline terminal is located on land mapped as MRZ-1 or MRZ-4, and the proposed Grove terminal is located on land mapped as MRZ-1. The proposed Grove to Skyline 320 kV DC transmission line would run through areas mapped as MRZ-1, MRZ-1 or MRZ-4, and MRZ-3, while the proposed Metcalf to Grove 500 kV transmission line would run through areas mapped as MRZ-1, MRZ-2, and MRZ-3.

The Proposed Project is not located on any active or potential mining sites (U.S. Geological Survey [USGS], 2023). There are three mapped mineral resource locations within 0.5 mile of the Proposed Project area that are producers or past producers, as shown on **Figure 5.12-1**. A quarry is mapped approximately 0.15 mile west of the proposed Grove to Skyline 320 kV DC transmission line and described as a producer of stone. Chaboya–Hillsdale is mapped approximately 0.4 mile west of the proposed Grove to Skyline 320 kV DC transmission line and described as a past producer of mercury. The Azevado Quarry is located approximately 0.1 mile west of the proposed Grove to Skyline 320 kV DC transmission line and described as a producer of stone. The Azevado Quarry is also listed as an operational quarry in the County of Santa Clara General Plan.

## 5.12.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

### 5.12.2.1 Mineral Resources Regulatory Setting

#### Federal

The Surface Mining Control and Reclamation Act (SMCRA) (30 U.S.C. §§ 1201-1328) establishes a program for regulating surface coal mining and reclamation activities. It establishes mandatory uniform standards for these activities on state and federal lands. This includes a requirement that minimizes adverse impacts on fish, wildlife, and related environmental values. The act creates an Abandoned Mine Reclamation Fund for use in reclaiming and restoring land and water resources adversely affected by mining practices (Office of the Law Revision Counsel [OLRC], 1977).

#### State

The protection of regionally significant mineral resource deposits is one of the main emphases of SMARA (Public Resources Code § 2710 et seq.). The law specifically mandates a two-phased process, commonly referred to as classification and designation for mineral resources (California Department of Conservation [DOC], 1975). The California Geological Survey is responsible under SMARA for carrying out the classification phase of the process (California DOC, 2015). The California State Mining and Geology Board (SMGB) is responsible for the second phase, which allows SMGB to identify areas within a production-consumption region that contain significant deposits of certain mineral resources that may be needed to meet the region's future demand (California SMGB, 2000). SMARA requires the state geologist to classify lands into MRZs based on the known or inferred mineral resource potential of that land. The classification process is based solely on geology, without regard to land use or ownership (California DOC, 2023). MRZ definitions are provided below in **Table 5.12-1**.

| Table 5.12-1: Mineral Resource Zone Definitions | |
|---|---|
| **Mineral Resource Zone** | **Definition** |
| MRZ-1 | Areas where available geologic information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence. |
| MRZ-2 | Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence. |
| MRZ-3 | Areas containing mineral deposits for which the significance cannot be determined from available data. |
| MRZ-4 | Areas where geologic information does not rule out either the presence or absence of mineral resources. |
| Sector EE | Areas that are considered to have a high likelihood for the presence of MRZ-2 resources (i.e., significant mineral deposits of regional significance). |
| Source: California SMGB, 2000 | |

## Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, "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 the City of San José and the County of Santa Clara do not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section includes a summary of local mineral resources-related policies, plans, or programs for informational purposes. Although LS Power Grid California, LLC ("LS Power") is not subject to local discretionary permitting, ministerial permits would be secured as appropriate.

### *County of Santa Clara General Plan*

The County of Santa Clara follows an approach to preserving and managing mineral resource extraction that includes a comprehensive set of strategies and policies (County of Santa Clara, 1994). The strategies and policies from the County of Santa Clara General Plan related to mineral resources were reviewed, and summaries of applicable strategies and policies are provided for informational purposes below.

The three strategies include:

- Strategy #1: Ensure Continued Availability of Mineral Resources
- Strategy #2: Mitigate the Environmental Impacts of Extraction and Transport
- Strategy #3: Reclaim Sites for Appropriate Subsequent Uses

**Policy C-RC 44 and R-RC 67** Local supplies of mineral resources should be recognized for their importance to the local, regional, and state economy. Strategies for preserving and managing mineral resources include:

a. ensuring continued availability of mineral resources to meet long term demand;
b. mitigating environmental impacts of extraction and transportation; and
c. reclaiming sites for appropriate subsequent land uses.

**Policy C-RC 45 and R-RC 68** Current and future demand for mineral resources in Santa Clara County, particularly construction aggregates, should be ensured by the following means:
a. inventorying existing sites, identifying and properly designating potential new sites for protection measures;
b. preserving deposits and access routes;
c. increased use of recycled material; and
d. proper development of new quarry sites.

**Policy C-RC 46 and R-RC 69** Existing sites and access routes for regionally significant resources should be protected from incompatible land uses and development that would preclude or unnecessarily limit resource availability.

**Policy C-RC 48** Reclamation for safe and beneficial future use of mineral resource extraction sites should be ensured through adequate planning, discretionary land use controls, and monitoring of reclamation plan implementation.

***City of San José General Plan***

The City of San José General Plan refers to mineral resources as "extractive resources" (City of San José, 2024). The following goals and policies related to extractive resources were reviewed, and summaries of applicable goals and policies are provided for informational purposes.

**Goal ER-11** **Extractive Resources.** Conserve and make prudent use of commercially usable extractive resources.

**Policy ER-11.1** When urban development is proposed on lands which have been identified as containing commercially usable extractive resources, consider the value of those resources.

**Policy ER-11.2** Encourage the conservation and development of SMARA-designated mineral deposits wherever economically feasible.

### 5.12.3 IMPACT QUESTIONS

#### 5.12.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to mineral resources comes from the California Environmental Quality Act (CEQA), Appendix G Environmental Checklist. According to the CEQA Environmental Checklist, a project may cause a potentially significant impact if it would:

- Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; or

- Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

#### 5.12.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing and Proponent's Environmental Assessments* (CPUC, 2019), there are no additional CEQA Impact Questions required for mineral resources.

### 5.12.4 IMPACT ANALYSIS

#### 5.12.4.1 Mineral Resources Impact Analysis

**Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**

**Less-Than-Significant Impact.** As discussed in **Section 5.12.1**, *Environmental Setting* and shown on **Figure 5.12-1**, there are no identified mineral resource areas or active or historic mines within the Proposed Project area. The Proposed Project would primarily intersect land that does not include mapped known or inferred mineral resources that are of value to the region and the residents of the State. The proposed Metcalf to Grove 500 kV transmission line and Staging Area 2 would intersect MRZ-2, which is defined as an area where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence. The MRZ-2 mapped area is primarily designated for uses including agriculture and open space (see **Section 5.11**, *Land Use and Planning* for more information), with Coyote Creek meandering through. Within the urban area of the City of San José, portions of the proposed Grove to Skyline 320 kV DC transmission line alignment would intersect with MRZ-3. The MRZ-3 areas are located within the heart of urban San José. In addition, these areas are not currently used for mineral extraction.

The proposed transmission lines would be underground, almost exclusively within existing roads; therefore, areas mapped as MRZ-2 and MRZ-3 that intersect the lines would not be used for mineral extraction in the foreseeable future, regardless of the Proposed Project. Staging Area 2 would be located on a site that is currently developed and/or disturbed and is unlikely to be used for mineral extraction due to the size and surrounding land use. Furthermore, use of Staging Area 2 would not restrict any potential use of the site for mineral resource extraction in the future. Therefore, construction and operation of the Proposed Project would not result in the loss of any known mineral resources, and there would be less-than-significant impacts under this criterion.

**PG&E Facility Upgrades**

In order to integrate the proposed HVDC terminals and new Grove to Skyline 320 kV DC transmission line into the existing transmission system, Pacific Gas and Electric Company (PG&E) would be required to perform upgrades at two existing substations: modifications to the Metcalf substation and expansion of the San Jose B substation (refer to **Section 3.3.5**, *Other Potentially Required Facilities*). These upgrades would occur within and adjacent to the existing substation facilities. The PG&E facility upgrades would also include a new water line to the existing Metcalf substation, which would extend approximately 800 feet north-northeast from the Metcalf substation and connect to an existing 16-inch water main near the corner of Metcalf Road

and Malech Road, which is served by the Great Oaks Water Company. The proposed substation upgrades and expansion at the existing San Jose B substation includes land designated as MRZ-1 (no significant mineral deposits) and MRZ-4 (inadequate information); therefore, construction and operation of the proposed upgrades and expansion at the substation would not result in the loss of any known mineral resources, and impacts would be less than significant. The proposed modifications at the existing Metcalf substation include land designated as MRZ-2 (likelihood of significant mineral deposits are present) and MRZ-3 (areas with mineral deposits with unknown significance). Although the proposed modification area is located within an area designated as MRZ-2 and MRZ-3, there are no known mineral resources under the substation site, and the site is already developed and unlikely to be used for future extraction. The new PG&E water line would be located in areas designated as MRZ-1, and this area is currently occupied by Metcalf Road, U.S. Route 101, and Malech Road. Future utilization of this area for mineral extraction is not likely, and construction and operation of the new water line would not impact mineral resources. Therefore, impacts would be less than significant.

**Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?**

**Less-Than-Significant Impact.** The Proposed Project is not located on any mineral resource recovery sites identified in the City of San José and County of Santa Clara General Plans, as discussed in **Section 5.12.1**. As shown on **Figure 5.12-1**, the Proposed Project area is located approximately 0.1 mile east of the Azevado Quarry, which is also identified as an operational quarry in the County of Santa Clara General Plan. Ingress and egress from the Azevado Quarry would include Monterey Road.

Construction activities associated with installing the proposed Grove to Skyline 320 kV DC transmission line within Monterey Road would require temporary lane closures on Monterey Road. Vehicles accessing the Azevado Quarry would be required to use other roadways or face temporary delays. As discussed further in **Section 5.17**, *Transportation*, traffic control plans would be developed and would include measures to minimize delays and provide detours if necessary. Following completion of construction activities, access to the Azevado Quarry would be restored to existing conditions. Therefore, construction and O&M activities would not permanently prevent access to locally important mineral resource recovery sites, and the Proposed Project would not result in the loss of availability of these sites. There would be less-than-significant impacts under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. The existing substation modification and expansion areas and new water line are not located on any mineral resource recovery sites, and the proposed upgrades would occur within and adjacent to the existing developed substation facilities. Therefore, impacts would be less than significant.

### 5.12.5 CPUC DRAFT ENVIRONMENTAL MEASURES

There are no CPUC Draft Environmental Measures suggested for mineral resources.

### 5.12.6 APPLICANT PROPOSED MEASURES

No Applicant Proposed Measures for mineral resources would be implemented for the Proposed Project.

### 5.12.7 PG&E BEST MANAGEMENT PRACTICES

No mineral resources Best Management Practices have been included for PG&E's scope of work.

## 5.13 NOISE

| Would the project result in: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | | | X | |
| b. | Generation of excessive ground-borne vibration or ground-borne noise levels? | | | X | |
| 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 two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | | | X | |

This section describes the noise environment within the vicinity of the Proposed Project as well as potential impacts that could result from construction and operation and maintenance (O&M) of the Proposed Project.

### 5.13.1 ENVIRONMENTAL SETTING

#### 5.13.1.1 Noise Sensitive Land Uses

The Proposed Project is located in the City of San José and the County of Santa Clara and encompasses three zonal areas to include two new high-voltage direct current (HVDC) terminals and associated transmission lines between the existing Pacific Gas and Electric Company (PG&E) San Jose B substation and the existing PG&E Metcalf substation, which are separated by approximately 13 miles.

**Skyline Terminal and San Jose B Substation Zone**

The Proposed Project seeks to construct the Skyline terminal immediately south of the existing San Jose B substation, which would encompass a portion of the approximately 10.6-acre vacant site. The proposed Skyline terminal is located within the City of San José and is zoned for Downtown Primary Commercial uses. The proposed Skyline terminal is located immediately west of State Route (SR)-87, which separates the proposed Skyline terminal from multi-family residential units to the east. The proposed Skyline terminal is located north of an existing rail line, which separates the proposed Skyline terminal from commercial office space further to the south. To the west of the proposed Skyline terminal is the Guadalupe River Park and Trail and beyond exists a commercial retail development. Aerial images showing the proposed Skyline terminal and

existing San Jose B substation zone are provided in **Figures 3-4**, *Project Route Map* and **3-7**, *HVDC Terminal General Arrangements*. Key noise sensitive land uses in this zone are residential developments to the east of the proposed Skyline terminal and the existing San Jose B substation.

**Grove Terminal and Metcalf Substation Zone**

The Proposed Project seeks to construct the Grove terminal approximately 0.65 mile south of the existing Metcalf substation. The proposed Grove terminal would be constructed on a vacant property used primarily for agricultural uses and would encompass a portion of the approximately 13.6-acre site. The proposed Grove terminal site is located along Monterey Road and consists of four parcels. Approximately 3.3 acres of the site from Monterey Road east are located within the City of San José and is zoned for Planned Development within an Agricultural Base District. The remaining approximately 10.3 acres are located within the County of Santa Clara and are zoned for Agricultural uses.

Surrounding land uses consist of office, industrial, and residential uses to the northwest; open space, Coyote Creek Parkway, and U.S. Route 101 to the northeast; a private lot consisting of disturbed land from a past orchard and a residential structure to the southeast; and Monterey Road and agricultural uses to the southwest. Aerial images showing the proposed Grove terminal and existing Metcalf substation zone alignment are provided in **Figures 3-4** and **3-7**. Key noise sensitive land uses in this zone are residential developments to the northwest, south, and southeast of the proposed Grove terminal. There are no noise sensitive land uses in the immediate vicinity of the existing Metcalf substation.

**Transmission Line Zone**

The proposed Grove to Skyline 320 kilovolt (kV) direct current (DC) transmission line is predominately located within the City of San José and would connect the new Grove terminal to the new Skyline terminal. The proposed transmission line would be located within existing roadways, including Monterey Road, First Street, Market Street, Little Market Street, and Bassett Street. Over the extent of the alignment, the proposed Grove to Skyline 320 kV DC transmission line is surrounded by varying land uses, including residential, park, open space, industrial, and commercial uses. The proposed Metcalf to Grove 500 kV transmission line would predominantly be located within Coyote Ranch Road as well as a short section in Coyote Creek Trail and an undeveloped portion of Coyote Creek Parkway, within the City of San José and County of Santa Clara. It is surrounded by open space and industrial uses. The proposed Skyline to San Jose B 115 kV station tie line is located in the City of San José, wholly contained within the adjacent Skyline terminal and existing substation sites. Aerial images showing the proposed transmission line alignments are provided in **Figures 3-3**, *Project Overview* and **3-4***.* Key noise sensitive land uses in this zone include residential developments, hotels and overnight accommodations, and libraries located along the proposed Grove to Skyline 320 kV DC transmission line alignment. There are 68 sensitive receptors located within 1,000 feet of the proposed Grove to Skyline 320 kV DC transmission line including single-family residences, apartments, motels, hotels, libraries, schools, and mobile home parks.

### 5.13.1.2 Noise Setting

#### Noise Fundamentals

Noise is defined as unwanted or annoying sound which interferes with or disrupts normal activities. Exposure to high noise levels has been demonstrated to cause hearing loss. The individual human response to environmental noise is based on the sensitivity of that individual, the type of noise that occurs, and when the noise occurs.

Sound is measured on a logarithmic scale consisting of sound pressure levels known as a decibel (dB). The sounds heard by humans typically do not consist of a single frequency but of a broadband of frequencies having different sound pressure levels. The method for evaluating all the frequencies of the sound is to apply an A-weighting to reflect how the human ear responds to the different sound levels at different frequencies. The A-weighted sound level adequately describes the instantaneous noise, whereas the equivalent sound level depicted as $L_{eq}$ represents a steady sound level containing the same total acoustical energy as the actual fluctuating sound level over a given time interval (California Department of Transportation ["Caltrans"], 2013).

The Community Noise Equivalent Level (CNEL) is the 24-hour A-weighted average for sound, with corrections for evening and nighttime hours. The corrections require an addition of five dB to sound levels in the evening hours between 7 p.m. and 10 p.m. and an addition of ten dB to sound levels at nighttime hours between 10 p.m. and 7 a.m. These additions are made to account for the increased sensitivity during the evening and nighttime hours when sound appears louder.

Because mobile/traffic noise levels are calculated on a logarithmic scale, a doubling of the traffic noise or acoustical energy results in a noise level increase of three A-weighted decibels (dBA) (Caltrans, 2013). Therefore, the doubling of the traffic volume, without changing the vehicle speeds or mix ratio, results in a noise increase of three dBA. Mobile noise levels radiate in an almost oblique fashion from the source and drop off at a rate of three dBA for each doubling of distance under hard site conditions and at a rate of 4.5 dBA for soft site conditions. Hard site conditions consist of concrete, asphalt, and hard pack dirt, while soft site conditions exist in areas having slight grade changes, landscaped areas, and vegetation. On the other hand, fixed/point sources radiate outward uniformly as they travel away from the source. Their sound levels attenuate or drop off at a rate of six dBA for each doubling of distance.

The most effective noise reduction methods consist of controlling the noise at the source, blocking the noise transmission with barriers, or relocating the receiver. Any or all of these methods could be required to reduce noise levels to an acceptable level.

#### Vibration Fundamentals

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 (Federal Transit Administration [FTA], 2018). There are several different methods that are used to quantify vibration. The peak particle velocity (PPV), in inches per second (in/sec), is defined as the maximum instantaneous peak of the vibration signal.

Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Man-made vibration issues are, therefore, usually confined to short distances (i.e., 500 feet or less) from the source. Sensitive receivers for vibration

include structures (especially older masonry structures), places occupied by people (especially residents, the elderly, and sick), and vibration sensitive equipment. Most residential buildings can be exposed to ground-borne vibration levels of 0.5 in/sec PPV without experiencing structural damage (Caltrans, 2020). The threshold of architectural damage for conventional sensitive structures is 0.2 in/sec PPV. Human response indicates 0.24 in/sec PPV is the annoyance perception level. Long-term or repeated (frequent/intermittent) sources are perceivable and may be annoying at levels as low as 0.08 in/sec PPV (Caltrans, 2020). Vibration from construction equipment and activities, such as excavation (i.e., continuous/frequent intermittent vibration), can be barely perceptible to human beings at 0.01 in/sec PPV (Caltrans, 2020).

**Existing Ambient Noise Environment**

The Proposed Project site and surrounding areas are dominated by electrical utilities (multiple power lines). Key factors contributing to the ambient noise in these areas are electric utility facilities, local roads, and major throughfares, such as SR-87, U.S. Route 101, and Monterey Road. These noise sources can produce high levels of sound, and ambient noise levels within and around the Proposed Project site were found to be 60 to 75 dBA during the daytime. Noise sources at the nearest noise sensitive land uses (residences located approximately 200 feet from the proposed Skyline terminal and the existing San Jose B substation) is SR-87. Noise sources at the nearest noise sensitive land uses (residences located approximately 100 feet from the proposed Grove terminal) are U.S. Route 101 and Monterey Road. Ambient noise measurements taken at the nearest noise sensitive land uses were found to have an average noise level of 67 to 71 dBA $L_{eq}$-based Day-Night Average Sound Level ($L_{dn}$) at the terminal and substation sites and 75 dBA $L_{eq}$ along Monterey Road, with noise levels reducing to the mid-50 dBA $L_{eq}$ at distances of approximately 500 feet from Monterey Road. Additional information about ambient noise monitoring at the Proposed Project can be found in **Appendix 5.13-A**, *Ambient Noise Results Memorandum*. Conservatively, the noise levels during the nighttime hours could be 10 dB lower than daytime noise levels.

### 5.13.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 5.13.2.1 Noise Regulatory Setting

**Federal**

***U.S. Environmental Protection Agency***

The U.S. Environmental Protection Agency (EPA), Office of Noise Abatement and Control, was established to coordinate federal noise control activities. The Federal Noise Control Act of 1972 established programs and guidelines to identify and address the effects of noise on public health and welfare and the environment. Administrators of the EPA determined in 1981 that subjective issues such as noise would be better addressed at lower levels of government. Consequently, in 1982, responsibilities for regulating noise control policies were transferred to state and local governments. However, noise control guidelines and regulations contained in the rulings by EPA in prior years remain upheld by designated federal agencies.

### *Federal Transit Administration*

The FTA published the Transit Noise and Vibration Impact Assessment Manual (FTA, 2018), which provides technical guidance for conducting noise and vibration analyses for federally funded transit projects and incorporating the results into FTA's National Environmental Policy Act (NEPA) environmental review documents. The manual describes noise and vibration concerns related to transit projects and potential effects on the surrounding community. The Proposed Project does not meet the criteria for a transit project defined by the FTA; however, the construction activities and equipment associated with the Proposed Project are similar to those addressed in the FTA Manual, which establishes useful guidelines for assessing construction noise, particularly when local criteria are not well defined. The FTA Manual establishes absolute noise levels (thresholds) and considers the duration of construction to determine noise impacts on adjacent land uses. For most projects, the highest levels of vibration occur during construction and assessment; therefore, the guidance focuses on evaluating the potential for damage to nearby buildings. The FTA Manual establishes construction damage criteria in terms of PPV, which range from a threshold of 0.12 in/sec for "buildings extremely susceptible to vibration damage" to 0.5 inch per second for "reinforced concrete, steel, or timber (no plaster)" (FTA, 2018).

### *Federal Railroad Administration*

In addition to the guidance developed by the FTA for conventional rail noise and vibration impact assessments, the Federal Railroad Administration (FRA) has developed complementary guidance for high-speed rail. FRA relies on FTA transit noise and vibration impact assessment procedures in evaluating improvements to conventional passenger rail lines and stationary rail facilities and for horn noise assessment, and also developed the High-Speed Ground Transportation Noise and Vibration Impact Assessment Manual (FRA, 2012). The manual contains criteria and procedures for use in analyzing the potential noise and vibration impacts of various types of high-speed fixed guideway transportation systems and is intended for projects with train speeds of 90 to 250 miles per hour. FRA's Office of Safety is also responsible for enforcing the Railroad Noise Emissions Compliance Regulation (49 Code of Federal Regulations [CFR] 210) that sets maximum sound levels from railroad equipment and for regulating locomotive horns. The Proposed Project does not meet the criteria for a high-speed ground transportation project; however, the FRA manual provides useful information regarding noise and vibration data, noise source mitigation, and clarifications to policy-related topics such as guidance on determining the need for mitigation of moderate noise impacts.

### *Occupational Safety and Health Administration*

The Occupational Safety and Health Administration (OSHA) regulates on-site and occupational noise levels and sets legal limits on noise exposure in the workplace over an eight-hour workday. OSHA's permissible exposure limit (PEL) is 90 dBA for all workers for an eight-hour day (29 CFR 1910.95). OSHA requires employers to implement a hearing conservation program when noise exposure is at or above 85 dBA averaged over eight working hours, or an eight-hour time-weighted average (TWA). When information indicates that any employee's exposure may equal or exceed an eight-hour time-weighted average of 85 dBA, the employer is required to develop and implement a monitoring program and notify employees of potential noise exposure. OSHA regulations also provide preventative measures, such as requiring hearing protectors for all employees and providing training to ensure that employees are aware of the effects of noise on hearing, the purpose of hearing protectors, the purpose of audiometric testing, and an explanation of audiometric testing procedures.

**State**

***California Health and Safety Code***

California Health and Safety Code Division 28, Section 4600, provides the California Noise Control Act. The California Noise Control Act states the following:

a) Excessive noise is a serious hazard to the public health and welfare.
b) Exposure to certain levels of noise can result in physiological, psychological, and economic damage.
c) There is a continuous and increasing bombardment of noise in the urban, suburban, and rural areas.
d) Government has not taken the steps necessary to provide for the control, abatement, and prevention of unwanted and hazardous noise.
e) The State of California has a responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise.
f) All Californians are entitled to a peaceful and quiet environment without the intrusion of noise which may be hazardous to their health or welfare.
g) It is the policy of the State to provide an environment for all Californians free from noise that jeopardizes their health or welfare. To that end it is the purpose of this division to establish a means for effective coordination of state activities in noise control and to take such action as will be necessary to achieve the purposes of this section.

***California General Plan and Zoning Guidelines***

California planning and zoning law set forth by the California Governor's Office of Planning and Research (OPR) requires that local governmental agencies adopt a Noise Element as part of all city and county general plans. The Noise Element of the general plan provides a basis for comprehensive local programs to control and abate environmental noise and to protect residents from excessive exposure. OPR requires that the Noise Element recognize the guidelines established by the California Noise Control Act and implement noise-compatible land use planning. Noise compatible uses are defined by zoning or other land use controls to maintain areas that are deemed acceptable in terms of noise exposure, and limit uses to those which are noise compatible in areas with excessive noise exposure. Based upon the relative importance of noise sources in order of community impact and local attitudes towards these sources, cities and counties are also required to develop noise-mitigating implementation measures to address existing and foreseeable noise issues and address local concern.

***California OSHA***

Per California OSHA ("Cal/OSHA") regulations (California Code of Regulations [CCR], Title 8, Section 5095-5100), employers are required to provide employees with proper protection against the effects of noise exposure when sound levels exceed an eight-hour TWA of 90 dBA (Permissible Exposure Level). The protective measures may be provided either through engineering or administrative controls. If these control measures fail to reduce the noise within the acceptable limits, personal protective equipment shall be provided and used. Additionally, whenever employee noise exposures equal or exceed an eight-hour TWA sound level of 85 dBA (action level), the employer shall develop and administer a Hearing Conservation Program.

### *Caltrans Vibration Guidance*

The Caltrans Vibration Guidance Manual (Caltrans, 2020) provides practical guidance to engineers, planners, and consultants who must address vibration issues associated with the construction, operation, and maintenance of Caltrans projects. The manual provides procedures to develop screening tools for assessing the potential for adverse effects related to human perception and structural damage and is intended to be informative and educational to those individuals who must address vibration from construction equipment, explosives, and facility operations. The manual is not an official policy, standard, specification, or regulation, but is provided here for informational purposes.

## Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, "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 the City of San José and the County of Santa Clara do not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section includes a summary of local noise-related policies, plans, or programs for informational purposes. Although LS Power Grid California, LLC ("LS Power") is not subject to local discretionary permitting, ministerial permits would be secured as appropriate.

### *City of San José General Plan*

The City of San José General Plan (2024) distinguishes between noise from transportation sources and noise from non-transportation (i.e., stationary) sources. The short-term exterior noise goal is 60 dBA Ldn for transportation sources. For stationary sources, the exterior noise goal is 55 dBA Ldn at the property line between sensitive land uses (e.g., residences, schools, libraries, hospitals, etc.) and non-sensitive land uses (e.g., industrial, commercial, etc.).

In addition to the policies of the City of San José General Plan, developments may also be subject to the following:

- San José Municipal Code (City of San José 2023) §20.100.450: Limits construction hours within 500 feet of residences to 7 a.m. to 7 p.m. weekdays, with no construction on weekends or holidays.
- Title 24 of the State Building Code: Multi-family buildings must be designed to achieve an interior Ldn of 45 dBA or less in all habitable residential areas.
- City of San José's Zoning Ordinance: The City's Zoning Ordinance applies specific noise standards to Residential, Commercial, and Industrial Zoning Districts, which limits the sound pressure levels generated by any use or combination of uses shall not exceed the decibel level at any property line as shown in **Table 5.3-1**, *City of San José Zoning Code Noise Standards* below.

| Table 5.13-1: City of San José Zoning Code Noise Standards | |
|---|---|
| **Land Uses** | **Maximum Noise Level at Property Line*** |
| Residential, open space, industrial, or commercial uses adjacent to a property used or zoned for residential purposes. | 55 dBA |
| Open space, commercial, or industrial use adjacent to a property used or zoned for commercial purposes or other non-residential use. | 60 dBA |
| Industrial use adjacent to a property used or zoned for industrial or use other than commercial or residential purposes. | 70 dBA |
| *Values may be exceeded with a Conditional Use Permit (CUP). | |

The Environmental Leadership Chapter in the City of San José General Plan sets forth policies to achieve the goal of minimizing construction impacts on people, residences, and business operations in the City of San José. The following policy is applicable to the Proposed Project:

**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.

**Policy EC-2.3** Require new development to minimize continuous vibration impacts to adjacent uses during demolition and construction. For sensitive historic structures, including ruins and ancient monuments or building that are documented to be structurally weakened, a continuous vibration limit of 0.08 in/sec PPV 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.

***County of Santa Clara General Plan***

The County of Santa Clara has adopted a Health and Safety Element as part of the General Plan (1994). The noise limits presented in the Health and Safety Element are applicable to projects that require a CUP. The guidelines state that a new project should not create noise levels that cause the noise levels at the nearest noise sensitive receptors to exceed the satisfactory level of 55 dBA.

The County of Santa Clara Code of Ordinances, (County of Santa Clara, 2024) Chapter VIII, Control of Noise and Vibration, presents exterior noise limit standards as summarized in **Table 5.13-2**, *Exterior Noise Level Performance Standards for Non-Transportation Sources* below.

The County of Santa Clara restricts operation of, or causing the operation of, any tools or equipment used in construction, drilling, repair, alteration, or demolition work between weekdays and Saturday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays, that the sound therefrom creates a noise disturbance across a residential or commercial real property line, except for emergency work of public service utilities or by variance. This section would not apply to the use of domestic power tools as specified in Subsection 11 of the County ordinance. Where technically and economically feasible, construction activities would be conducted in a manner that the maximum noise levels at affected properties would not exceed 75 dBA at single family uses, 80 dBA at multi-family uses, and 85 dBA at commercial uses.

*The remainder of this page is intentionally kept blank.*

| Table 5.13-2: Exterior Noise Level Performance Standards for Non-Transportation Sources | | |
|---|---|---|
| **Receiving Land Use Category** (1) **Time Period Noise Level Standards (dBA)** | **Time Period Noise Level** | **Noise Level Standards (dBA)** |
| One and Two Family Residential | 10:00 p.m. - 7:00 a.m.<br>7:00 a.m. - 10:00 p.m. | 45<br>50 |
| Multi-family Residential | 10:00 p.m. - 7:00 a.m.<br>7:00 a.m. - 10:00 p.m. | 50<br>55 |
| Commercial | 10:00 p.m. - 7:00 a.m.<br>7:00 a.m. - 10:00 p.m. | 60<br>65 |
| Light Industrial | Anytime | 70 |
| Heavy Industrial | Anytime | 75 |
| **Adjustments to Noise Level Standard** | | |
| **Duration**<br>L50<br>L25<br>L8<br>L2<br>L0 | <br>30 minutes per hour<br>15 minutes per hour<br>5 minutes per hour<br>1 minute per hour<br>Maximum permissible level | <br>Standard<br>Standard + 5 dB<br>Standard + 10 dB<br>Standard + 15 dB<br>Standard + 20 dB |
| **Character** | Tone, whine, screech, hum, or music or speech | Standard - 5 dB |
| **Ambient Level** (2) | Existing ambient L50, L25, L8, L2<br><br>Existing ambient L0 | Standard + 5 dB<br><br>Existing maximum |
| Footnotes<br>[1] If the noise measurement occurs on a property adjoining a different land use category, the noise level limit applicable to the lower land use category, plus five dB, will apply.<br>[2] If for any reason the alleged offending noise source cannot be shutdown, the ambient noise must be estimated by performing a measurement in the same general area of the source but at a sufficient distance that the noise from the source is at least ten dB below the ambient in order that only the ambient level be measured. If the difference between the ambient and the noise source is five to ten dB, then the level of the ambient itself can be reasonably determined by subtracting a one-decibel correction to account for the contribution of the source. | | |

## 5.13.3 IMPACT QUESTIONS

### 5.13.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to noise comes from the California Environmental Quality Act (CEQA), Appendix G, Environmental Checklist. According to the CEQA Checklist, a project may cause a potentially significant impact if it would result in:

- Generation of 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; or

- Generation of excessive ground-borne vibration or ground-borne noise levels; or
- 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 two miles of a public airport, would the project expose people residing or working in the project area to excessive noise levels.

#### 5.13.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing Proponent's Environmental Assessments* (CPUC, 2019), there are no additional CEQA Impact Questions required for noise.

### 5.13.4 IMPACT ANALYSIS

#### 5.13.4.1 Noise Impact Analysis

**Would the project result in generation of 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 Impact.** Construction noise represents a short-term impact on the ambient noise levels. Noise generated by construction equipment includes haul trucks, water trucks, graders, dozers, loaders, excavators, pile drivers, and scrapers, which can reach relatively high noise levels. The most effective method of controlling construction noise is through local control of construction hours and by limiting the hours of construction to normal working hours.

**Construction Noise**

Typical maximum noise levels for construction equipment at 50 feet from the source are shown in **Table 5.13-3**, *Typical Noise Levels Generated by Construction Equipment*. As shown, the maximum intermittent noise levels ($L_{max}$) are expected to range between 74 and 89 dBA at approximately 50 feet.

**Table 5.13-3: Typical Noise Levels Generated by Construction Equipment**

| Equipment | Noise Level (dBA $L_{max}$) at 50 feet |
|---|---|
| Backhoe | 80 |
| Concrete mixer | 85 |
| Pump truck | 82 |
| Crane, Mobile | 83 |
| Dozer | 85 |
| Excavator | 85 |
| Generator/Welders | 81 |
| Grader | 85 |

| Table 5.13-3: Typical Noise Levels Generated by Construction Equipment | |
|---|---|
| **Equipment** | **Noise Level (dBA $L_{max}$) at 50 feet** |
| Man lift/Aerial lift/Forklift | 85 |
| Loader | 85 |
| Paver | 89 |
| Roller | 85 |
| Scraper | 89 |
| Trencher | 75 |
| Drill rig | 85 |
| Trucks (all types) | 74-88 |
| Sources: Federal Highway Administration (FHWA), 2006; Ontario, 2016 | |

Grading and excavation operations are typically the loudest construction activity due to the quantity of equipment involved. The primary grading operations for the Proposed Project would likely include equipment similar to a dozer, grader, and tractor/loader/backhoe within the staging areas and the proposed HVDC terminal sites.

The list of equipment in **Table 5.13-3** provides a conservative assessment from a noise perspective, as these represent some of the loudest pieces of equipment that would be used during construction. The majority of the grading activity is anticipated to be located at the proposed HVDC terminal sites, the San Jose B substation expansion site (adjacent to the proposed Skyline terminal), and the Metcalf substation modification area. Less intense activities are anticipated at the staging areas. Construction is nearest to residential land uses along the proposed Grove to Skyline 320 kV DC transmission line. Construction of the proposed Grove to Skyline 320 kV DC transmission line would be approximately 50 feet from residential receptors in suburban areas along the southern portion of the proposed transmission line and approximately 20 feet in downtown areas along the northern segment of the proposed transmission line (refer to **Figure 3-7**, *HVDC Terminal General Arrangements*).

Based on the preliminary construction schedule included with this Proponent's Environmental Assessment (PEA), the proposed work activities to be performed at the Grove and Skyline terminals would consist of site development, below-grade construction, above-grade construction and equipment installation, equipment/pre-energization commissioning and testing, and post energization performance testing. Proposed transmission line construction would consist of construction mobilization and surveying, transmission line construction, and commissioning and testing. Transmission line construction equipment would generate similar noise levels as roadway improvements, and the amount of equipment utilized would be limited due to alignment and work area constraints.

The construction phases that would have the highest noise impact potential are the site development, below- and above-grade construction, and transmission line construction. **Table 5.13-4**, *Terminal and Substation On-Site Preparation Noise Levels* below, summarizes the worst-case noise levels from the equipment operating in the same location, which is not physically possible. Noise attenuation at the nearest noise sensitive receptor would vary as equipment is used near the residences. Construction activities at the proposed HVDC terminal sites would be concentrated at

the center of each site, typically 100 to 400 feet from the property lines. As discussed above, the average existing ambient noise levels at the residences near the proposed HVDC terminal sites are estimated to be 67 to 71 dBA during daytime hours (when the majority of construction activities would occur).

Maximum noise levels of 76 to 85 dBA $L_{max}$ may be experienced at local residences during maximum effort, with several pieces of equipment operating at the same time in close proximity; however, these levels would only last for a short duration at any specific location. Duct bank installation for the proposed Grove to Skyline 320 kV DC transmission line is anticipated to progress linearly along the proposed alignment (primarily along Monterey Road and other City roads through the City of San José), with crews working in multiple locations along the proposed alignment. As can be seen in **Table 5.13-4**, construction noise during the proposed transmission line construction phase would have the highest impact potential due to the narrow construction area. Similarly, splice vault installation and cable installation activities would progress linearly with multiple crews along the proposed alignment, with efforts concentrated near the splice vaults. Therefore, the most intensive construction activities associated with the proposed transmission lines would typically not remain in a single location for more than one month, and typically less than one week.

**Table 5.13-4: Terminal and Substation On-Site Preparation Noise Levels**

| Equipment Required | Equipment Noise Levels (Leq; 50 feet) | Phase Noise Level (Leq; 50 feet) | Phase Duration at Each Location | Receptor Nearest to Construction Phase | Noise Level at Nearest Receptor (Leq) |
|---|---|---|---|---|---|
| **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 | 78 | 82.1 | 660 Workdays | 50 | 82.1 |
| Loader | 73 | | | | |
| Excavator | 79 | | | | |

*Source: Noise Measurements taken at several construction projects throughout California by Ldn.

Neither the City of San José nor the County of Santa Clara specify quantitative thresholds for the impact of temporary increases in noise due to construction. However, the City of San José has adopted Policy EC-1.7 (City of San José, 2024), which includes general parameters for what may constitute a temporary construction noise impact. LS Power reviewed previous reports from the general Proposed Project area to see how this policy was being implemented by the City in terms of CEQA impacts. Specifically, this PEA has utilized the construction noise significance criteria from the City of San José General Plan Environmental Impact Report (City of San Jose, 2024), as follows:

> "For temporary construction-related noise to be considered significant, construction noise levels would have to exceed ambient noise levels by five (5) dBA $L_{eq}$ or more and exceed the normally acceptable levels of 60 dBA $L_{eq}$ at the nearest noise-sensitive land uses or 70 dBA $L_{eq}$ at office or commercial land uses for a period of more than 12 months."

Therefore, for the purposes of this PEA analysis, a potentially significant temporary construction noise impact would be identified if construction-related noise would increase ambient noise levels such that hourly average noise levels exceed 60 dBA $L_{eq}$ at residential land uses and ambient noise levels were also increased by at least five dBA $L_{eq}$ for a period of more than one year (12 months).

As shown above in **Table 5.13-4**, construction noise at the proposed Skyline terminal, the existing San Jose B substation, and the proposed Grove terminal could result in ambient noise levels above 60 dBA at residential receptors. Construction at these sites would also last longer than one year, although specific construction activities and associated noise levels would vary, and construction activities with the highest noise levels would last less than one year. However, the average existing ambient noise levels at these locations are 67 dBA (near the proposed Skyline terminal and the existing San Jose B substation) and 71 dBA (near the proposed Grove terminal). These noise levels are due to the proximity of these areas to large roads and highways (e.g., SR-87, U.S. Route 101, and Monterey Road) as well as other urban noise sources, such as local traffic and aircraft noise. Therefore, construction noise impacts at these locations would be less than significant because construction noise would not be anticipated to increase ambient noise by more than five dBA.

Construction of the proposed Grove to Skyline 320 kV DC transmission line would occur in much closer proximity to sensitive residential receptors and other land uses (refer to **Figure 3-4**). As such, construction noise would be anticipated to exceed 60 dBA at receptor locations. Given the length of the proposed Grove to Skyline 320 kV DC transmission line route, existing ambient noise levels are anticipated to vary greatly, depending upon site-specific conditions such as proximity to roads and aircraft noise. Specifically, ambient noise levels along the proposed Grove to Skyline 320 kV DC transmission line are anticipated to range between 55 and 75 dBA. Therefore, at some locations along the proposed transmission line, construction noise could result in an increase to ambient noise greater than five dBA. However, while overall proposed Grove to Skyline 320 kV DC transmission line construction is anticipated to continue for more than one year, actual construction activities typically would not remain in a single location for more than one month, and typically less than one week. Therefore, noise impacts to any given receptor along the proposed transmission line alignment would not exceed one year. Impacts from construction of the proposed Grove to Skyline 320 kV DC transmission line would be less than significant.

**Construction Traffic Noise**

Construction of the Proposed Project would temporarily increase traffic noise off-site from commuting construction workers and from haul trucks bringing materials to and from the Proposed Project site. All Proposed Project components would be constructed over an approximately two-year period. All construction traffic would access the proposed HVDC terminals and the existing San Jose B substation from Monterey Road or Santa Teresa Street via Coleman Avenue and SR-87. While annual average daily traffic (AADT) is not available for Coleman Avenue, the AADT along SR-87 and Monterey Road is in the tens of thousands. Therefore, the 500 maximum trips per day required during construction would have a minimal effect on daily traffic volumes along the roadways, and the short-term increase in traffic noise from Proposed Project construction

would not cause a substantial increase over existing conditions. Impacts would be less than significant.

**Operations Noise**

To evaluate noise impacts due to operations of the Proposed Project, the PEA defines a significant noise impact associated with Proposed Project operations as a noise impact that would exceed local noise ordinance threshold values and would cause a noticeable increase in noise levels versus existing ambient conditions. Proposed Project operations noise levels that do not exceed this significant impact threshold are not considered significant and do not warrant abatement.

As part of operations, the Proposed Project would include eight heating, ventilation, and air conditioning (HVAC) units; an outdoor cooling unit; four transformers, only three of which would be energized simultaneously; and six reactors at each proposed HVDC terminal site.

The proposed transformers would have an unshielded noise rating of 87 dBA at one meter (approximately three feet). The proposed reactors would have an unshielded noise rating of 79 dBA at one meter. The proposed outdoor cooling unit would have an unshielded noise rating of 82 dBA at one meter. The HVAC units would have an unshielded noise rating of 73 dBA at one meter.

The operations source noise levels are presented in **Table 5.13-5**, *Proposed Project Operations Source Noise Level in Decibels (dBA)*. All sound power reference levels were taken from preliminary manufacturer specification sheets for the Proposed Project.

**Table 5.13-5: Proposed Project Operations Source Noise Level in Decibels (dBA)**

| Name | Sound Power Level (dBA) | Sound Pressure Level at one meter (dBA) |
|---|---|---|
| Converter Transformers | 98 | 87 |
| Reactors | 90 | 79 |
| Outdoor Cooling Unit | 93 | 82 |
| HVAC Units | 84 | 73 |

All equipment was modeled as active at 100 percent power for a full hour during all hours. This is considered a reasonably conservative assumption, as it would be unlikely that all equipment would be at maximum noise output for a full hour at the same time. To be conservative, noise receptors were placed at all parcel boundaries in line with surrounding residences.

The nearest residential uses to the proposed Skyline terminal and the existing San Jose B substation are located to the east over 300 feet from the proposed terminal and substation expansion areas and are separated by SR-87. The anticipated noise levels at the property line for the residences located at 190 Ryland Street could be as high as 53 dBA $L_{eq}$ unshielded and would not exceed the City of San José thresholds. Based on these inputs and the site layout shown in **Figure 3-7**, the Proposed Project would not exceed the local noise level thresholds at the property boundary, which is depicted as Receiver 1 in **Table 5.13-6**, *Operations Noise Levels in Decibels*. Even if City of San José thresholds were exceeded by the Proposed Project, existing ambient noise levels were determined to be 65 to 69 dBA $L_{eq}$ during the daytime hours and 58 to 70 dBA $L_{eq}$ during the nighttime hours at the ambient noise measurement location representative of this receptor (designated as measurement station LT-1, see **Appendix 5.13-A**). Thus,

Proposed Project operations would not cause a substantial increase in ambient noise levels, and additional noise abatement would not be warranted. As such, noise impacts due to operation of the proposed Skyline terminal and the existing San Jose B substation would be less than significant.

The nearest residential uses to the proposed Grove terminal are located to the north and south, adjacent to the proposed terminal site. Based on the proposed site layout, the equipment is primarily centrally located to provide separation from the residences. The proposed Grove terminal site would have a solid barrier around the perimeter of the site that would break the line of sight to the equipment and reduce the noise levels by at least five to eight dBA.

The anticipated noise levels due to the proposed Grove terminal at the property line for the residence located at 8194 Monterey Road (depicted as Receiver 2 in **Table 5.13-6**) could be as high as 52 dBA $L_{eq}$ with the minimum shielding from the perimeter barrier and would be less than the County of Santa Clara normally acceptable daytime noise level threshold. Although the maximum estimated dBA $L_{eq}$ exceeds the normally acceptable nighttime County value, existing ambient noise levels were determined to be 54 to 62 dBA $L_{eq}$ during the nighttime hours at the ambient noise measurement location representative of this receptor (designated as measurement station LT-3, see **Appendix 5.13-A**). Therefore, the proposed Grove terminal's operational noise levels at Receiver 2 would not cause a substantial increase in ambient noise. Therefore, impacts would be less than significant, and additional noise abatement would not be warranted.

The anticipated noise levels due to the proposed Grove terminal at the property line for the residence located at 8470 Monterey Road (depicted as Receiver 3 in **Table 5.13-6**) could be as high as 49 dBA $L_{eq}$ with the minimum shielding from the perimeter barrier and would be less than the County of Santa Clara normally acceptable daytime noise level threshold. Although the maximum dBA $L_{eq}$ exceeds the normally acceptable nighttime County value, existing ambient noise levels were determined to be 54 to 62 dBA $L_{eq}$ during the nighttime hours at the ambient noise measurement location representative of this receptor (designated as measurement station LT-3, see **Appendix 5.13-A**). Therefore, the proposed Grove terminal's operational noise levels at Receiver 3 would not cause a substantial increase in ambient noise. Therefore, impacts would be less than significant, and additional noise abatement would not be warranted.

| Table 5.13-6: Operations Noise Levels in Decibels | | | | | | |
|---|---|---|---|---|---|---|
| | | | Noise Level (dBA $L_{eq}$) | | | |
| Receiver | Description | Nearest Project Feature | Anticipated At Property Line | City or County Threshold (Daytime/ Nighttime) | Existing Ambient (Daytime/ Nighttime) | Noise Level Exceeds the Significance Threshold? |
| 1 | 190 Ryland Street, San José, CA 95110 Multi-Family | Skyline Terminal | 53 | 55 | 64.6-68.7/ 57.5-69.6 | No |
| 2 | 8194 Monterey Road, San José, CA 95013 Single Family | Grove Terminal | 52 | 55/ 45 | 62.1-71.2/ 54.0 – 62.1 | No |
| 3 | 8470 Monterey Road, San José, CA 95013 Single Family | Grove Terminal | 49 | 55/ 45 | 62.1-71.2/ 54.0 – 62.1 | No |

As shown in **Table 5.13-6** above, because operational noise levels would remain below the significance threshold at all sensitive receptors, the Proposed Project's operational noise levels are less than significant, and further abatement measures are not warranted.

In addition to facility operational noise, periodic site maintenance of the facility would also be required. On-site activities are not anticipated to result in consistent noise levels in excess of existing landscape maintenance, agricultural operations, rail line operations, or highway use on the existing and surrounding properties. Thus, on-site maintenance is not anticipated to result in a substantial increase in noise levels.

**PG&E Facility Upgrades**

In order to integrate the proposed HVDC terminals and new Grove to Skyline 320 kV DC transmission line into the existing transmission system, PG&E would be required to perform upgrades at two existing substations: modifications to the Metcalf substation and expansion of the San Jose B substation (refer to **Section 3.3.5**, *Other Potentially Required Facilities*). The substation upgrades would occur within and adjacent to the existing substation facilities. The PG&E facility upgrades would also include a new water line to the existing Metcalf substation, which would extend approximately 800 feet north-northeast from the Metcalf substation and connect to an existing 16-inch water main near the corner of Metcalf Road and Malech Road, which is served by the Great Oaks Water Company. The modifications at the Metcalf substation including the new water line are not located near any sensitive noise receptors, and construction noise impacts are not anticipated to occur. Rebuilding and expansion of the San Jose B substation

would occur adjacent to the proposed Skyline terminal, and the noise impacts during construction would be the same as those for the proposed Skyline terminal discussed above. Impacts would be less than significant.

Operations noise from the upgraded PG&E substations would result in less-than-significant noise impacts. Both PG&E substations are existing facilities, and their operation noise is integrated into the existing ambient noise levels. In addition, the existing Metcalf substation is not located near any sensitive noise receptors. The existing San Jose B substation is located adjacent to the proposed Skyline terminal and would be rebuilt and expanded onto the Skyline terminal site (refer to **Figure 3-7**). The rebuilt San Jose B substation would include all new equipment, some of which would be located within new equipment enclosures and would be expected to emit less noise than the existing substation facility. Operations noise impacts would be less than significant for the PG&E facility upgrades.

**Would the project result in generation of excessive ground-borne vibration or ground-borne noise levels?**

**Less-Than-Significant Impact.** The Proposed Project is anticipated to result in less-than-significant impacts associated with ground-borne vibration, as outlined below for construction and operations.

**Construction Vibration**

Construction activities, such as tamping ground surfaces, excavation, grading, drilling, and passing heavy trucks on uneven surfaces, may produce minor ground-borne vibration in the immediate vicinity of the construction activity. Impacts from construction-related ground-borne vibration, should they occur, would be intermittent and confined to the immediate area surrounding the activity. Site development activities for the proposed HVDC terminals would be anticipated to generate the highest vibration levels. Site development may require the use of large bulldozers, scrapers, and graders for preparation and grading activities. Other activities, such as trenching and facility construction, would also generate vibrations from excavation and backfill of foundations, footings, and duct banks; however, these vibration levels would be less intense and would occur for a shorter duration. In addition, loaded trucks would be used to deliver and remove material to and from the site. **Table 5.13-7**, *Typical Construction Equipment Vibration Levels* provides vibration levels for typical construction equipment.

**Table 5.13-7: Typical Construction Equipment Vibration Levels**

| Equipment | PPV at 25 feet (in/sec) |
|---|---|
| Vibratory Roller | 0.210 |
| Large Bulldozer | 0.089 |
| Hoe Ram (Hydraulic Breaker) | 0.089 |
| Loaded Trucks | 0.076 |
| Jackhammer | 0.035 |
| Small Bulldozer | 0.003 |
| Source: Caltrans, 2020 | |

The risk of construction vibration damage from each piece of equipment can be estimated by adjusting the PPV from the reference PPV at 25 feet to the actual distance from the equipment to the receiver by using the following formula[1]:

$$PPV_{Equipment} = PPV_{Ref}\left(\frac{25}{D}\right)^{1.5}$$

Where:

$PPV_{Equipment}$ = the PPV of the equipment adjusted for distance, in/sec

$PPV_{Ref}$ = the source reference PPV at 25 feet, in/sec

$D$ = distance from the equipment to the receiver, feet

To determine the closest distance each type of equipment presented in **Table 5.13-7** can be operated next to structures (and still meet the City of San José's threshold of 0.2 in/sec PPV for standard construction buildings and 0.08 in/sec PPV for historical buildings), the formula was used to establish the distance at which the construction vibration damage criteria were met. Results categorized by equipment type are shown in **Table 5.13-8**, *Typical Construction Equipment Vibration Levels at Thresholds* (FTA, 2018). Vibration sensitive structures are those structures at least 50 years old or generally constructed before approximately 1974.

**Table 5.13-8: Typical Construction Equipment Vibration Levels at Thresholds**

| Equipment | San José's Standard Construction Building Threshold (0.2 in/sec) | San José's Historical Building Threshold (0.08 in/sec) |
|---|---|---|
| Vibratory Roller | 26 feet | 48 feet |
| Large Bulldozer | 15 feet | 27 feet |
| Hoe Ram (Hydraulic Breaker) | 15 feet | 27 feet |
| Loaded Trucks | 13 feet | 24 feet |
| Jackhammer | 8 feet | 14 feet |
| Small Bulldozer | 2 feet | 3 feet |

The nearest sensitive receptors to construction vibration activities at the proposed Skyline and Grove terminal sites would be located approximately 90 feet and 30 feet, respectively, from the proposed sites (refer to **Figure 3-7**). The nearest residential structure to the proposed Grove terminal was constructed after 1974 according to the County of Santa Clara's Department of Planning and Development. No identified typical construction equipment would exceed the City of San José's standard construction threshold for construction of the Skyline and Grove terminals.

Even though the proposed Metcalf to Grove 500 kV transmission line is predominately located outside of the city limit of the City of San José, no sensitive receivers were identified along the proposed transmission line; therefore no vibration standards would be exceeded.

[1] The formula is based on point sources with normal propagation conditions.

The proposed Grove to Skyline 320 kV DC transmission line is proposed to be located almost exclusively within existing roads. As such, the existing roads and the surrounding buildings are constantly subjected to on-road traffic, including from loaded trucks, which may regularly cause vibrations that exceed the City of San José's vibration thresholds. Once the final design and alignment are determined for the proposed Grove to Skyline 320 kV DC transmission line, the proposed alignment could be as close as 10 feet to the nearest sensitive receiver. However, all expected equipment for the construction of the underground Grove to Skyline 320 kV DC transmission line is anticipated to cause vibrations less than or equal to those experienced from loaded trucks that routinely use the existing roads. Therefore, impacts in this regard would be less than significant.

If high vibratory equipment that induce vibrations above loaded truck levels (e.g., vibratory rollers, large bulldozers, hoe rams, etc.) are necessary for construction of the proposed Grove to Skyline 320 kV DC transmission line, **Applicant Proposed Measure [APM] NOI-1**, *Vibration Monitoring for High Vibratory Equipment Contingency Plan* would be implemented. Once the final design and alignment are determined for the proposed Grove to Skyline 320 kV DC transmission line, a site survey would be conducted along segments of the proposed transmission line alignment where construction may occur within 25 feet of existing structures to determine if any vibration sensitive structures are located within 25 feet of vibration-inducing construction activities. Vibration sensitive structures are those structures at least 50 years old, or generally constructed before approximately 1974. If construction with high vibratory equipment occurs within 25 feet of such structures, a Vibration Monitoring for High-vibratory Equipment Contingency Plan would be implemented. The Vibration Monitoring for High-vibratory Equipment Contingency Plan would be implemented to include the following, as necessary, to prevent vibration damage to vibration sensitive structures:

- Identification of vibration-sensitive structures within 25 feet of the final transmission line alignment where high vibratory equipment is planned to be used.

- Where such structures are identified, LS Power would attempt to use the following measures as necessary to avoid construction vibration impacts:
    - Place operating equipment on the construction site as far as feasible from vibration-sensitive receptors.
    - Use smaller equipment to minimize vibration levels below the limits.
    - Avoid using vibratory rollers and tampers near sensitive areas.
    - Select demolition methods not involving impact tools.

- If the above reduction measures do not lower anticipated vibration levels below loaded truck levels or are not feasible, a technical vibration study would be prepared by a qualified professional who verifies that there would be virtually no risk of cosmetic or structural damage.

- Based on the results of vibration study, identify where vibration monitoring would be conducted, establish a vibration monitoring schedule, define structure-specific vibration limits, and address the need to conduct photo, elevation, and crack surveys to document before and after construction conditions.

- Construction contingencies would be identified for when vibration levels approach the limits identified by vibration study. Construction contingencies may include procedures

such as use of alternative construction equipment or construction phasing that would reduce potential damage to affected structures.

- Designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person would be clearly posted at the construction site.

- The results of all vibration monitoring would be summarized and submitted in a report shortly after substantial completion of construction that occurs within 25 feet of vibration-sensitive structures. The report would include a description of measurement methods, equipment used, calibration certificates, and graphics as required to clearly identify vibration-monitoring locations. An explanation of all events that exceeded vibration limits would be included together with documentation supporting any such claims.

Following implementation of **APM NOI-1**, impacts would be less than significant.

**Operations Vibration**

Operation of the Proposed Project would not be anticipated to generate substantial ground-borne vibration or ground-borne noise levels. Operation of the Proposed Project would consist of routine maintenance activities and emergency repairs. These activities would be unlikely to produce ground-borne vibration. Operation of transformers at the proposed HVDC terminals could produce ground-borne vibration; however, ground-borne vibrations would be perceptible only in the immediate vicinity (i.e., less than 25 feet) of the transformer pad, if at all. No other component of the Proposed Project would generate vibrations during operation. Thus, impacts resulting from the generation of ground-borne vibration during operation of the Proposed Project would be less than significant.

Therefore, construction and O&M of the Proposed Project would result in a less-than-significant impact related to the generation of ground-borne vibration and ground-borne noise levels.

**PG&E Facility Upgrades**

The PG&E upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast from the Metcalf substation. The modifications at the Metcalf substation including the new water line are not located near any sensitive noise receptors, and construction vibration impacts are not anticipated to occur. Rebuilding and expansion of the San Jose B substation would occur adjacent to the proposed Skyline terminal, and the vibration impacts during construction would be the same as those for the Skyline terminal discussed above. Impacts would be less than significant.

Operations vibration from the upgraded PG&E substations would result in less-than-significant impacts. As described above, vibration from operating substation equipment (e.g., transformers) on concrete foundations would only be perceptible in the immediate vicinity of the equipment. Therefore, operational vibration impacts would be less than significant for the PG&E facility upgrades.

**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 two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

**Less-Than-Significant Impact.** San José Mineta International Airport is located approximately one mile north of the proposed Skyline terminal and the existing San Jose B substation, with the flight path almost directly over the combined terminal/substation site. The proposed Skyline terminal is located between the current and future 65 to 70 dBA CNEL contours of the Airport according to the San José Mineta International Airport Master Plan (San José, 2020). During construction, crews and Proposed Project personnel would be exposed to elevated noise levels partially associated with the San José Mineta International Airport (refer to **Appendix 5.13-A**). However, construction activities are temporary, and the expected noise levels (65 to 70 dBA) are not anticipated to significantly affect workers. Impacts during construction would be less than significant.

There are no proposed long-term sensitive uses as part of the Proposed Project. Therefore, operation of the Proposed Project would not expose people working or residing in the area to excessive construction or operation noise levels attributable to aircraft or airport operations. Therefore, no impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E upgrades would occur within and adjacent to the existing substation facilities and the proposed new water line would extend approximately 800 feet north-northeast from the Metcalf substation. Similar to the proposed Skyline terminal, the San Jose B substation is located approximately one mile from the San José Mineta International Airport. As with construction of the proposed Skyline terminal, workers and construction personnel at the San Jose B substation site would temporarily be subjected to noise from the airport. However, the anticipated noise levels (65 to 70 dBA) and the limited duration of construction would not result in significant impacts. Therefore, impacts under this criterion would be less than significant.

### 5.13.5 CPUC DRAFT ENVIRONMENTAL MEASURES

There are no CPUC Draft Environmental Measures suggested for noise.

### 5.13.6 APPLICANT PROPOSED MEASURES

The following noise and vibration APM would be implemented for the Proposed Project.

**APM NOI-1: Vibration Monitoring for High Vibratory Equipment Contingency Plan**

Once the final design and alignment are determined for the proposed Grove to Skyline 320 kV DC transmission line, a site survey would be conducted along segments of the proposed transmission line alignment where construction may occur within 25 feet of existing structures to determine if any vibration sensitive structures are located within 25 feet of vibration-inducing construction activities. Vibration sensitive structures are those structures at least 50 years old, or generally constructed before approximately 1974. If construction with high vibratory equipment occurs within 25 feet of such structures, a Vibration Monitoring for High-vibratory Equipment Contingency Plan would be implemented. The Vibration Monitoring for High-vibratory Equipment

Contingency Plan would be implemented to include the following, as necessary, to prevent vibration damage to vibration sensitive structures:

- Identification of vibration-sensitive structures within 25 feet of the final transmission line alignment where high vibratory equipment is planned to be used.

- Where such structures are identified, LS Power would attempt to use the following measures as necessary to avoid construction vibration impacts:
    - Place operating equipment on the construction site as far as feasible from vibration-sensitive receptors.
    - Use smaller equipment to minimize vibration levels below the limits.
    - Avoid using vibratory rollers and tampers near sensitive areas.
    - Select demolition methods not involving impact tools.

- If the above reduction measures do not lower anticipated vibration levels below loaded truck levels or are not feasible, a technical vibration study would be prepared by a qualified professional who verifies that there would be virtually no risk of cosmetic or structural damage.

- Based on the results of vibration study, identify where vibration monitoring would be conducted, establish a vibration monitoring schedule, define structure-specific vibration limits, and address the need to conduct photo, elevation, and crack surveys to document before and after construction conditions.

- Construction contingencies would be identified for when vibration levels approach the limits identified by vibration study. Construction contingencies may include procedures such as use of alternative construction equipment or construction phasing that would reduce potential damage to affected structures.

- Designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person would be clearly posted at the construction site.

- The results of all vibration monitoring would be summarized and submitted in a report shortly after substantial completion of construction that occurs within 25 feet of vibration-sensitive structures. The report would include a description of measurement methods, equipment used, calibration certificates, and graphics as required to clearly identify vibration-monitoring locations. An explanation of all events that exceeded vibration limits would be included together with documentation supporting any such claims.

### 5.13.7 PG&E BEST MANAGEMENT PRACTICES

No noise or vibration Best Management Practices have been included for PG&E's scope of work.

## 5.14 POPULATION AND HOUSING

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes or business) or indirectly (e.g., through extension of roads or other infrastructure)? | | | | X |
| b. | Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | | | | X |

This section describes population and housing conditions within the area of the Proposed Project, as well as the potential impacts that could result from construction and operation and maintenance (O&M) of the Proposed Project.

### 5.14.1 ENVIRONMENTAL SETTING

The proposed Skyline terminal site is located in the City of San José, California in the County of Santa Clara adjacent and directly south of the existing Pacific Gas and Electric Company (PG&E) San Jose B substation. The land to the north of the proposed Skyline terminal site is PG&E's existing San Jose B substation, Coleman Avenue, and Guadalupe River Park; to the east is State Route 87 and residential housing; commercial uses and offices are located to the south; and land to the west is the Guadalupe River, Guadalupe River Trail, Autumn Parkway, and commercial uses. A new single-circuit Grove to Skyline 320 kV DC transmission line would be constructed to connect the proposed Skyline terminal in the City of San José to the proposed Grove terminal in unincorporated Santa Clara County.

The proposed Grove terminal site is located approximately 13 miles south of the proposed Skyline terminal. Existing uses surrounding the proposed Grove terminal site consist of an office and residence with industrial uses to the north; Coyote Creek, Coyote Creek Trail, and U.S. Route 101 to the east; agricultural uses and a residence to the south; and Monterey Road and agricultural uses to the west. The proposed Metcalf to Grove 500 kV AC transmission line is located within both the City of San José and the County of Santa Clara jurisdictional areas.

Historical population and housing data are presented below as obtained from the U.S. Census Bureau decennial census (2020a, 2020b, 2020c). Population projections and housing unit estimates were obtained from the California Department of Finance (DOF) (California DOF, 2023).

#### 5.14.1.1 Population Estimates

Population data from the 2010 and 2020 decennial census are presented in **Table 5.14-1**, *Population and Housing Estimates*. Between 2010 and 2020, the County of Santa Clara and the City of San José experienced population increases of approximately 7.7 percent and 7.1 percent, respectively. According to the DOF, the population of the County of Santa Clara is expected to

decrease in 2030, followed by increases in 2040, 2050, and 2060, with the population in 2060 estimated to reach 2,100,432. The Association of Bay Area Governments provided population projections for the City of San José, projecting the population to continue to increase to 1,377,145 by 2040. As of June 2023, the unemployment rate in the County of Santa Clara is 4.4 percent (Best Places, 2023a), and the unemployment rate in the City of San José is 5.6 percent (Best Places, 2023b).

### 5.14.1.2 Housing Estimates

During each Housing Element update, each jurisdiction must plan for its share of housing needs for the planning period as mandated by the State of California. Housing need is determined for households in four income categories: above moderate-, moderate-, low-, and very low-income. State law has established a process for assigning the responsibility for planning for housing production in California to individual cities and counties. This is known as the Regional Housing Needs Allocation (RHNA) process. For the 2023-2031 planning period, the City of San José's RHNA is 62,200 units. Of those 62,200 new housing units, 55 percent are designated for very low-, low-, and moderate-income groups (City of San José, 2023a). Data on the numbers of occupied and vacant housing units and vacancy rates for the City of San José and the County of Santa Clara are presented in **Table 5.14-1**. As shown, vacant housing units are available near the Proposed Project in both the City of San José and the County of Santa Clara. In addition, there is short-term lodging near the Proposed Project that could be available at hotels and motels in the Proposed Project area.

**Table 5.14-1: Population and Housing Estimates**

| | County of Santa Clara | City of San José |
|---|---|---|
| Population, 2010 | 1,787,694 | 945,942 |
| Population, 2020 | 1,925,225 | 1,013,240 |
| Projected Population, 2030 | 1,900,159 | 1,189,660 |
| Projected Population, 2040 | 2,009,127 | 1,377,145 |
| Projected Population, 2050 | 2,075,768 | Not Available* |
| Projected Population, 2060 | 2,100,432 | Not Available* |
| Housing Units, Total | 688,035 | 342,037 |
| Housing Units, Occupied | 656,063 | 328,622 |
| Housing Units, Vacant | 31,972 | 13,415 |
| Vacancy Rate (%) | 4.6% | 4% |

Source: U.S. Census Bureau, 2020a, 2020b, 2020c; California DOF, 2023; City of San José, 2020; Association of Bay Area Governments, 2018

*Data projections not available.

### 5.14.1.3 Approved Housing Developments

There are numerous approved or pending housing developments within one mile of the Proposed Project, especially in the downtown area of San José (City of San José, 2023b, 2023c; County of Santa Clara, 2023). See **Appendix 7-A**, *Cumulative Projects Table* for a list of all housing development projects within two miles of the Proposed Project that have been recently approved or under review. As shown in **Table 5.15-1** above, the projected population is 1,377,145 by 2040 in the City of San José and 2,100,432 by 2060 in the County of Santa Clara. The projected number of housing units within one mile of the Proposed Project that have been provided to determine

cumulative Proposed Project impacts is 20,825 single- and multi-family residential units (**Appendix 7-A**). The estimated individual population increase for each approved residential development is not expressly provided and would vary based on the type of units and anticipated number of permanent occupants; therefore, the estimated population increase was calculated using the City's average household size of 3.03 persons per household in 2018 to 2022 (U.S. Census Bureau, 2022).

Data on the estimated numbers of housing units and resulting population increase for the City of San José and County of Santa Clara are presented in **Table 5.14-2**, *Housing Development Within One Mile of the Proposed Project*.

**Table 5.14-2: Housing Development Within One Mile of the Proposed Project**

| Project Name or Developer | Number of Units | Estimated Population Increase* | Approval or Construction Date | Project Status |
|---|---|---|---|---|
| Westbank Terraine | 319 | 966.57 | March 7, 2024 | Planning review |
| 259 Meridian Ave | 241 | 730.23 | September 21, 2023 | Planning approved |
| Communications Hill | 799 | 2,420.97 | October 25, 2023 | Under construction |
| Tamien Residential | 569 | 1,724.07 | December 9, 2020 | Preconstruction review |
| Alum Rock Family Housing | 87 | 263.61 | April 1, 2021 | Under construction |
| 425 Auzerais Apartments | 130 | 393.90 | October 22, 2019 | Under construction |
| Blossom Hill Signature | 315 | 954.45 | July 19, 2022 | Planning approved |
| Monterey Mixed Use | 438 | 1,327.14 | July 2022 | Planning approved |
| 605 Affordable | 345 | 1,045.35 | December 2021 | Planning approved |
| 905 North Capitol | 382 | 1,157.46 | TBD | Preconstruction review |
| Montgomery Plaza I | 126 | 381.78 | TBD | Planning approved |
| Apollo Mixed Use | 497 | 1,505.91 | TBD | Planning review |
| 802 S 1st Street | 246 | 745.38 | October 22, 2023 | Planning approved |
| Summerhill Baypointe | 334 | 1,012.02 | TBD | Planning review |
| UC Madera | 272 | 824.16 | December 14, 2022 | Planning approved |
| Stockton Hotel | 19 | 57.57 | TBD | Preconstruction review |
| Villa Del Sol Mixed Use Residential | 185 | 560.55 | December 5, 2023 | Planning approved |
| 950 W Julian | 300 | 909.00 | TBD | Planning review |
| Charities Housing/Vista Montana | 446 | 1,351.38 | TBD | Planning review |
| East Santa Clara Street Project | 559 | 1,693.77 | TBD | Planning approved |
| Downtown West | 3,000 to 5,000 | 15,150.00 | May 15, 2021 | Planning approved |
| West San Carlos Mixed Use | 202 | 612.06 | June 28, 2023 | Planning approved |
| Cambrian Plaza | 364 | 1,102.92 | August 9, 2022 | Planning approved |

| Table 5.14-2: Housing Development Within One Mile of the Proposed Project | | | | |
|---|---|---|---|---|
| **Project Name or Developer** | **Number of Units** | **Estimated Population Increase*** | **Approval or Construction Date** | **Project Status** |
| Flea Market South | 3,450 | 10,453.50 | TBD | Planning review |
| Little Portugal Gateway | 121 | 366.63 | November 2021 | Planning approved |
| El Paseo & 1777 Saratoga Ave Mixed Use Village | 994 | 3,011.82 | June 21, 2022 | Planning approved |
| Energy Hub (Westbank Historic District) | 194 | 587.82 | TBD | Planning approved |
| The Orchard Residential ("Bo Town") | 520 | 1,575.6 | TBD | Planning approved |
| 19 North 2nd St | 210 | 636.30 | TBD | Planning review |
| 420 South 2nd | 254 | 769.62 | TBD | Planning approved |
| Montgomery Plaza II | 264 | 799.92 | TBD | Planning approved |
| Echo/Icon | 415 | 1,257.45 | October 31, 2022 | Planning approved |
| 681 E Trimble/Seely (Tsukuda Fruit Stand) | 1,480 | 4484.40 | TBD | Planning review |
| San Carlos Housing | 104 | 315.12 | TBD | Planning approved |
| Volar | 307 | 930.21 | TBD | Planning approved |
| Kelsey Ayer Station | 115 | 348.45 | TBD | Preconstruction review |
| The Mark Residential Tower | 222 | 672.66 | March 17, 2021 | Planning approved |
| ***Subtotal*** | ***up to 20,825*** | ***up to 63,099.75*** | **-** | **-** |

* Estimated population increase was calculated using the City of San José's average household size of 3.03 persons per household.
Source: City of San José, 2023b; City of San José, 2023c

## 5.14.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

### 5.14.2.1 Population and Housing Regulatory Setting

#### Federal

There are no applicable federal regulations for population and housing that apply to the Proposed Project.

#### State

There are no applicable state regulations for population and housing that apply to the Proposed Project.

#### Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order (GO) 131-D,

Section XIV.B, "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 the City of San José and the County of Santa Clara do not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section includes a summary of local population and housing-related policies, plans, or programs for informational purposes. Although LS Power Grid California, LLC ("LS Power") is not subject to local discretionary permitting, ministerial permits would be secured as appropriate.

### *County of Santa Clara General Plan*

The following relevant population and housing policies from the County of Santa Clara General Plan (County of Santa Clara, 1994) were reviewed and are provided below for informational purposes.

**Policy HG2-1** The County and the cities should work cooperatively to ensure that there is a balanced housing supply sufficient to achieve countywide economic, social, and environmental objectives. Further opportunities for inter-agency, intergovernmental, interregional, and public/private cooperation should be sought out and encouraged.

**Policy HG2(i) C** Continue to support cross-agency integration of housing services with the services provided by other County Departments through internal agency agreements.

**Policy C-GD 3 (a)** Urban service areas should generally include only those areas suited for urban development. Development of such areas should be reasonably serviceable with public facilities and services.

### *City of San José General Plan*

The following policies from the City of San José General Plan (City of San José, 2024) are relevant to population and housing and are provided for informational purposes.

**Policy H-1.9** Facilitate the development, preservation, and rehabilitation of housing to meet San José's fair share of the County's and region's housing needs.

**Policy H-3.3** Situation housing in an environment that promotes health, safety, and well-being of the occupants and is close to services and amenities.

### *City of San José 2023-2031 Housing Element*

The City of San José 2023-2031 Housing Element was adopted by the City Council on June 20, 2023. This revised Housing Element includes an implementation workplan that links each action for the 2023-2031 planning period to a General Plan housing policy to ensure alignment and

internal consistency between the two documents. The five goals of the 2023-2031 Housing Element are included below for informational purposes (City of San José, 2023a).

**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.

### 5.14.3 IMPACT QUESTIONS

#### 5.14.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to population and housing come from the California Environmental Quality Act (CEQA), Appendix G Environmental Checklist. According to the CEQA Environmental Checklist, a project may cause a potentially significant impact if it would:

- Induce substantial unplanned population growth in the area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through the extension of roads or other infrastructure); or

- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

#### 5.14.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing and Proponent's Environmental Assessments* (CPUC, 2019), there are no additional CEQA Impact Questions required for population and housing.

### 5.14.4 IMPACT ANALYSIS

#### 5.14.4.1 Population and Housing Impact Analysis

**Would the project induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes or business) or indirectly (e.g., through extension of roads or other infrastructure)?**

**No Impact.** Construction of the Proposed Project would not induce, either directly or indirectly, substantial population growth in the area. LS Power expects to utilize up to approximately 250 workers per day during peak construction, but on average, the workforce would be less. The labor demands of the Proposed Project would be met by existing LS Power employees, by hiring specialty construction and electrical contractors who already reside in the surrounding areas, or by hiring specialty construction and electrical contractors from outside the local area who may

temporarily reside in the vicinity of the Proposed Project while completing their roles in the construction process. Therefore, construction of the Proposed Project would not require a substantial number of workers who would move to the area permanently.

The primary objective of the Proposed Project is to resolve several reliability concerns, including multiple near-term and long-term overloads identified in the San José area 115 kV transmission system. While the Proposed Project would improve the overall system capability to adequately serve the existing and forecasted load demand, it is not intended to increase power supplies related to potential growth for any planned housing development and would not extend power to undeveloped areas approved for growth by local agencies. City of San José and County of Santa Clara planning documents already anticipate and permit a certain level of growth in the area based on regional population projections, and the Proposed Project would not affect anticipated growth. Improved system reliability would not generate new housing development, and the Proposed Project does not propose new housing, businesses, extension of roads, or other land use changes that would induce economic or population growth in the area. Further, although the Proposed Project would improve system reliability that would benefit both existing and planned growth in the City of San José and County of Santa Clara, it would be speculative to estimate the extent to which the Proposed Project could support new planned housing development in the Greater Bay Area. O&M of the Proposed Project would not provide new jobs nor require development of new housing and, therefore, would not induce, either directly or indirectly, substantial population growth in the area. Although the Proposed Project would improve system reliability that would benefit both existing and planned growth in the City of San José and County of Santa Clara, the Proposed Project is not expected to directly or indirectly support new planned development in the Greater Bay Area or otherwise support any growth-related activities that could lead to a significant effect on the environment. Finally, while the Proposed Project would facilitate reliable operation of the transmission system in the electrical proximity of the existing PG&E San Jose B and Metcalf substations, it would not directly induce population growth or create new demand because the proposed HVDC terminal and transmission facilities would support the existing regional transmission system for existing customer demand and forecasted electrical load demand.
The Proposed Project would be operated remotely by LS Power's control center in Austin, Texas and LS Power's local maintenance/technical staff, utilizing existing internal LS Power staff and external resources for maintenance and emergency response. The Proposed Project would be incorporated into LS Power's existing programs with existing equipment, experienced staff, and trusted contractors to provide operational and cost efficiency with reduced risks. LS Power would hire one technician to be located in close proximity to the Proposed Project to perform routine inspections, monitoring, and repairs. LS Power would also have two other technicians located in California for LS Power's other projects who would assist in O&M of the Proposed Project facilities if needed. Given the small number of personnel required for O&M, the Proposed Project would have no impact to the workforce residing in the area.

The Proposed Project would be remotely operated with no permanent workforce on-site and only require a small number of positions for O&M; therefore, no population growth would be directly induced by operation of the Proposed Project. Additionally, the Proposed Project would not include new infrastructure such as publicly accessible roads that could indirectly induce unplanned population growth. Proposed new access roads would provide ingress and egress to the proposed high-voltage direct current (HVDC) terminals and would not facilitate unplanned growth. As discussed further in **Section 3.2.3**, *System Reliability*, the Proposed Project would facilitate reliable operation of the extra high-voltage transmission system in the electrical proximity of the existing PG&E San Jose B and Metcalf substations. The Proposed Project is needed to meet the increased demand for energy within the existing service area and would not serve any

additional end users beyond those already being served by the existing system. O&M of the Proposed Project would not induce, either directly or indirectly, substantial population growth in the area. No impacts would occur under this criterion.

**PG&E Facility Upgrades**

In order to integrate the proposed HVDC terminals and new Grove to Skyline 320 kilovolt (kV) direct current (DC) transmission line into the existing transmission system, PG&E would be required to perform upgrades at two existing substations: modifications to the Metcalf substation and expansion of the San Jose B substation (refer to **Section 3.3.5**, *Other Potentially Required Facilities*). These upgrades would occur within and adjacent to the existing substation facilities. The PG&E facility upgrades would also include a new water line to the existing Metcalf substation, which would extend approximately 800 feet north-northeast from the Metcalf substation and connect to a 16-inch water main near the corner of Metcalf Road and Malech Road, which is served by the Great Oaks Water Company. Construction of these upgrades would occur concurrently with construction of the remainder of the Proposed Project and for a similarly limited duration (refer to **Section 3.6.4**, *Construction Schedule*). No new homes, businesses, or transportation infrastructure would be constructed as a result of the PG&E facility upgrades that would induce unplanned population growth. The facility upgrades would not result in an increase in permanent workforce at either substation and, therefore, would not induce, either directly or indirectly, substantial population growth in the area. No impacts would occur under this criterion.

**Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?**

**No Impact**. The Proposed Project would not displace any existing housing. The Proposed Project terminals and associated transmission lines would be located on vacant land, agricultural land, and existing roadways absent of people and existing housing developments or residences. While there are numerous approved and pending housing developments within one mile of the Proposed Project, none of these developments would be stopped or delayed due to the construction of the Proposed Project. No people or housing would be displaced by construction or operation of the Proposed Project; thus, it would not be necessary to construct replacement housing elsewhere. Therefore, there would be no impacts under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Construction of these upgrades would occur concurrently with construction of the remainder of the Proposed Project and for a similarly limited duration (refer to **Section 3.6.4**). No people or housing would be displaced by construction or operation of the proposed PG&E facility upgrades, including the new water line. Therefore, no impacts would occur under this criterion.

### 5.14.5 CPUC DRAFT ENVIRONMENTAL MEASURES

There are no CPUC Draft Environmental Measures suggested for population and housing.

### 5.14.6 APPLICANT PROPOSED MEASURES

No Applicant Proposed Measures for population and housing would be implemented for the Proposed Project.

### 5.14.7 PG&E BEST MANAGEMENT PRACTICES

No population and housing Best Management Practices have been included for PG&E's scope of work.

## 5.15 PUBLIC SERVICES

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: | | | | | |
| | Fire protection? | | | X | |
| | Police protection? | | | X | |
| | Schools? | | | X | |
| | Parks? | | | X | |
| | Other public facilities? | | | X | |

This section describes the public services within the vicinity of the Proposed Project, as well as the potential impacts that could result from construction and operation and maintenance (O&M) of the Proposed Project.

### 5.15.1 ENVIRONMENTAL SETTING

The Proposed Project is located within the southern portion of the City of San José and unincorporated County of Santa Clara. The proposed Skyline terminal site is located in downtown San José, immediately south of the existing Pacific Gas and Electric Company (PG&E) San Jose B substation and is surrounded by downtown office and commercial uses to the east, south, and west, and the Guadalupe River to the west. The proposed underground Grove to Skyline 320 kilovolt (kV) direct current (DC) transmission line would connect to the proposed Skyline terminal and span approximately 13 miles south through urban development and public road right-of-way to the proposed Grove terminal site. The proposed Grove terminal site is located approximately 0.65 mile south of the existing PG&E Metcalf substation within Coyote Valley. Land uses in the vicinity of the proposed Grove terminal consist of agricultural uses, vacant land, residential, commercial, recreational uses, and Coyote Creek.

Public services data, including fire and police protection and maintenance of public facilities such as schools and parks, was obtained using the City of San José General Plan (City of San José, 2024), the Downtown Strategy 2040 Environmental Impact Report (EIR) (City of San José, 2018), the City of San José Annual Report on City Services (City of San José, 2022), the County of Santa

Clara General Plan (County of Santa Clara, 1994), and other local service information resources. The locations of public service facilities near the Proposed Project area are shown on **Figure 5.15-1**, *Public Service Facilities Map* and **Figure 5.16-1,** *Recreational Resources Map*, and described below.

### 5.15.1.1 Service Providers

The following section discusses the public service providers that would serve the Proposed Project.

**Police**

The Proposed Project area would be serviced by multiple police departments, including the San José Police Department (SJPD) and the Santa Clara County Sheriff's Office. The SJPD has jurisdiction over the City of San José (City of San José, 2018). The SJPD has approximately 1,700 employees (SJPD, 2023a). In 2021 through 2022, there were 1,153 authorized sworn positions and 564 authorized civilian positions in the SJPD, totaling 1,717 for both sworn and civilian (City of San José, 2022). The SJPD station is located at 201 West Mission Street, San José, approximately 0.65 mile northwest of the proposed Skyline terminal site. The SJPD responds to both emergency and non-emergency calls for service in each of the City's 16 patrol districts, which are further broken down into police beats. The 16 patrol districts comprise of four divisions, each containing four districts. The Proposed Project is located in the Southern Division within District "Y". The Southern Division team is composed of one captain, six lieutenants, 18 sergeants, 128 officers, one senior community service officer, 14 community service officers, two crime prevention specialists, and personnel with experience in detective bureaus (e.g., robbery, homicide, and assaults), special operations (e.g., SWAT, air support, and street crimes), crime scene investigations, and administration (SJPD, 2023b).

In addition, the Santa Clara County Sheriff's Office provides police protection services to all unincorporated areas of the County of Santa Clara, including the proposed Grove terminal site (in conjunction with SJPD) as discussed above. The Santa Clara County Sheriff's Office has approximately 2,025 personnel, of which 1,453 are sworn law enforcement officers (Santa Clara County Sheriff's Office, 2023a).

The average response time of the Santa Clara County Sheriff's Office in unincorporated areas is 10.93 minutes for Priority 1 calls and 13.51 minutes for Priority 2 calls; however, these data reflect response times for large geographical rural and unincorporated areas and do not accurately reflect anticipated response times at the proposed Grove terminal site (Santa Clara County Sherriff's Office, 2023b). The SJPD has the goal of answering 95 percent of all 911 emergency calls in under 15 seconds (City of San José, 2022). According to the City of San José Annual Report on City Services for the fiscal year 2021 through 2022, the SJPD handled about 1.3 million calls for service in 2021 through 2022. Priority 1 calls are defined as a time-critical emergency involving an immediate threat to life and/or property, and Priority 2 calls are a request in which critical intervention is required, but the situation has stabilized and is unlikely to worsen in the short term. In 2020 through 2021, the Citywide average response time for Priority 1 calls was 7.3 minutes, which did not meet the SJPD's target of six minutes. The Citywide average of 23.9-minutes response time for Priority 2 calls also did not meet the SJPD's target of 11 minutes (City of San José, 2022).

**Fire**

The City of San José Fire Department (SJFD) services the incorporated City of San José and the unincorporated parts of the County of Santa Clara with fire and life-saving services, including fire protection, emergency medical services, rescue, public education, emergency preparedness, and trauma support (City of San José, 2023a). The SJFD serves a population of nearly 1,200,000 people. The SJFD operates 33 stations daily with 33 Type 1 fire engines, nine fire trucks, six Type 6 fire engines, five chief buggies, four crash rigs, three rescue medic trucks, three water tenders, two Type 3 engines, and one of each of the following trucks: Med 30 Rig, HazMat Rig, Command Van, Foam Unit, Air Unit, Urban Search and Rescue (US&R) A&B, and US&R E, totaling a fleet of 72 service vehicles (City of San José, 2023b). SJFD would respond to emergency situations within the entire Proposed Project area. The SJFD has two fire stations located in the downtown area of San José, Fire Station 1 and Fire Station 30 (City of San José, 2018). **Table 5.15-1**, *Fire Stations Near the Proposed Project Area* shows the SJFD fire station, location, and the approximate distance of the station from the Proposed Project.

**Table 5.15-1 Fire Stations Near the Proposed Project Area**

| Fire Station Name | Location | Approximate Distance from Proposed Project |
|---|---|---|
| Fire Station 01 | 225 N Market Street, San José, CA 95110 | 0.26 mile from Skyline terminal and adjacent to the Grove to Skyline 320 kV DC transmission line |
| Fire Station 30 | 454 Auzerais Avenue, San José, CA 95126 | 1 mile from Skyline terminal and 0.53 mile from Grove to Skyline 320 kV DC transmission line |
| Fire Station 03 | 98 Martha Street, San José, CA 95112 | 0.1 mile from Grove to Skyline 320 kV DC transmission line |
| Fire Station 26 | 528 Tully Road, San José, CA 95111 | 0.65 mile from Grove to Skyline 320 kV DC transmission line |
| Fire Station 18 | 4430 Monterey Road, San José, CA 95111 | Adjacent to Grove to Skyline 320 kV DC transmission line |
| Fire Station 35 | 135 Poughkeepsie Road, San José, CA 95123 | 0.3 mile from Grove to Skyline 320 kV DC transmission line |
| Fire Station 27 | 6027 San Ignacio Avenue, San José, CA 95119 | 0.25 mile from Grove to Skyline 320 kV DC transmission line and 2.4 miles from Grove terminal |

According to the City of San José Annual Report on City Services for the fiscal year 2021 through 2022, the SJFD handled about 103,100 incidents in 2021 through 2022. SJFD requests for service are received as 911 calls and answered by a communications call taker, then prioritized using a nationally standardized fire or medical priority dispatching system questionnaire. Requests for service are divided into Priority 1 emergencies, Priority 2 emergencies, and non-emergencies. In 2021 through 2022, SJFD responded to approximately 82,500 total Priority 1 incidents and 20,700 Priority 2 incidents. Of the total incidents, 63,100 were medical emergencies, 4,900 were fire incidents, 6,000 were related to hazards, and 29,100 were other incidents, including good intent calls, rescues, and false alarms (City of San José, 2022). The department responded to 71 percent of Priority 1 incidents within its time standard of eight minutes, which is below the target of 80 percent, and responded to 92 percent of Priority 2 incidents within 13 minutes, which is well

within the target of 90 percent (City of San José, 2022). The SJFD is adding two new fire stations (Fire Stations 20 and 37) and expects that their addition will result in improved response times.

Emergency response services in the Proposed Project area are also provided by the SJFD. The SJFD also provides Advanced Life Support (paramedic) first-response services under an agreement with the County of Santa Clara Emergency Medical Services (EMS) Agency. The agreement performance requirements specify that the SJFD must arrive within eight minutes 90 percent of the time. In 2021 through 2022, the department met the County EMS performance standard requirements of 90 percent for 12 months (City of San José, 2022).

**Schools**

The San José Unified School District includes 26 elementary schools, six middle schools, one kindergarten through grade eight school, and six high schools serving over 30,000 students (San José Unified School District, 2023). In the vicinity of the Proposed Project area, there is also the Oak Grove School District, which includes 14 elementary schools and three middle schools enrolling over 9,800 students in kindergarten through grade eight, and the Franklin-McKinley School District, which includes 13 elementary schools and three middle schools and over 6,600 students (Oak Grove School District, 2023; Franklin-McKinley School District, 2023). Also in the vicinity of the Proposed Project is the East Side Union High School District, which has 11 high schools, five alternative education schools, 10 charter schools, and an adult education school; it has over 24,500 students enrolled (East Side Union High School District, 2023; California Department of Education, 2023). The Morgan Hill Unified School is in the area of the proposed Grove terminal site and has 15 schools and services over 8,500 students (Morgan Hill Unified School District, 2023). There are also 93 private schools in the City of San José enrolling approximately 24,000 students. These private schools range from preschool through high school. The closest school to the proposed Skyline terminal is Hester School, located approximately 0.75 mile west of the terminal site. As the proposed alignment continues south, a number of schools are located within a 0.25-mile radius, as shown on **Figure 5.15-1**. The closest school to the proposed Grove terminal is the Charter School of Morgan Hill, located approximately 0.6 mile southeast of the terminal site.

**Parks**

There are numerous parks around the Proposed Project area (discussed further in **Section 5.16**, *Recreation*). The Proposed Project would be served by the City of San José Department of Parks, Recreation, and Neighborhood Services and the County of Santa Clara Parks and Recreation Department parks and recreational facilities located in the unincorporated County of Santa Clara. The City of San José has 200 neighborhood parks and 10 regional parks, as well as other facilities, such as community gardens, trails, swimming pools, and skate parks. Excluding golf courses, the developed portion of these facilities covers 1,795 acres. There is an additional 1,501 acres of open space and undeveloped land (City of San José, 2022).

The closest City park to the Proposed Project area is the Guadalupe River Park. The main portion of the Guadalupe River Park is 250 acres and is located approximately 0.08 mile north of the proposed Skyline terminal site. This park is maintained and operated by the Guadalupe River Park Conservancy and includes community gardens, fruit tree orchards, hiking and bike trails, wildlife, and public art (Guadalupe River Park Conservancy, 2023). The Guadalupe River Park includes the Guadalupe River Trail, which travels south from the main park area, entering the

parcel boundary of the proposed Skyline terminal site and immediately west of the limits of construction. The Guadalupe River Park and Trail then continue south, parallel to the proposed underground Grove to Skyline 320 kV DC transmission line and approximately 0.1 mile west. The downtown portion of the trail is maintained by the City of San José (City of San José, 2023c).

The County of Santa Clara Parks and Recreation Department owns and operates 28 regional parks encompassing over 52,000 acres of land (Santa Clara County Parks, 2023a). The closest County park to the Proposed Project is Coyote Creek Parkway, which is 15 miles of parkway including a multiuse paved trail and equestrian trail that is known as the Coyote Creek Trail (Santa Clara County Parks, 2023b). The Coyote Creek Parkway is directly east of the proposed Grove terminal site and is maintained by the County of Santa Clara Parks and Recreation Department. The southern portion of the Coyote Creek Trail is closest to the Proposed Project area, with the proposed underground Metcalf to Grove 500 kV transmission line being located within portions of Coyote Creek Parkway and Coyote Creek Trail. The southern portion of the Coyote Creek Trail begins at Tully Road and extends southward through County jurisdiction and reaches Morgan Hill, providing views of the waterway and urban and rural settings (City of San José, 2023d). Additional information about parks is provided in **Section 5.16**.

**Other Public Facilities**

***Hospitals***

There are three hospitals in the vicinity of the Proposed Project area. O'Connor Hospital is approximately 2.2 miles west of the proposed Skyline terminal site and would likely service any emergencies that occur on the northern end of the Proposed Project. Kaiser Permanente San Jose Medical Center is approximately 0.8 mile west of the proposed underground Grove to Skyline 320 kV DC transmission line, and Good Samaritan Hospital is approximately 12 miles west of the proposed Grove terminal site. These hospitals would likely provide medical needs in the central and southern portions of the Proposed Project.

***Libraries***

Library services in the City of San José are provided by the San José Public Library System. The closest library to the proposed Skyline terminal site is located approximately 0.85 mile southeast of the terminal at the Dr. Martin Luther King, Jr. Library. The closest City of San José public library to the proposed Grove terminal site is located approximately 3.85 miles northwest of the terminal at the Santa Teresa Branch Library. Library services for the unincorporated area of the County of Santa Clara, including the proposed Grove terminal site, are provided by the Santa Clara County Library District. The closest County library to the Proposed Project would be the Morgan Hill Library, located approximately seven miles south of the proposed Grove terminal site.

### 5.15.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

### 5.15.2.1 Public Services Regulatory Setting

#### Federal

***National Fire Protection Association 1710***

National Fire Protection Association (NFPA) 1710 is the standard for the organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by career fire departments. NFPA developed NFPA 1710 as an industry standard for the deployment of fire suppression operations to ensure safe and effective fire service operations. The Standard stipulates that the arrival of the first fire engine for 90 percent of emergency calls should occur within a range of six minutes and 15 seconds and six minutes and 45 seconds. It is recognized that the NFPA 1710 Standard is the optimal national standard and is not regularly achieved in rural areas or areas otherwise far removed from firefighting service providers.

#### State

***California Fire Code***

The California Code of Regulations (CCR), Title 24, Part 9 is known as the California Fire Code. This code provides provisions for planning, precautions, and preparations for fire safety and fire protection during various activities. This includes, but is not limited to, construction, demolition, building requirements, and guidelines for working with flammable chemicals and materials (California Building Standards Commission, 2019). The Proposed Project is located within a Local Responsibility Area (LRA) and is not located within a State Responsibility Area (SRA), according to data from the State of California and the Department of Forestry and Fire Protection ("CAL FIRE") (CAL FIRE, 2023). However, the southern portion of the Proposed Project is located close to a "High" LRA Fire Hazard Severity Zone (City of San José, 2023e). The Limits of Construction for the proposed Grove terminal site encompass areas classified as "Moderate" Fire Hazard Severity Zones. The area to the east of the proposed Grove terminal site, across U.S. Route 101, is identified as being within a "High" Fire Hazard Severity Zone (City of San José, 2023e). As such, the California Fire Code was reviewed for informational purposes for the Proposed Project.

***California Public Resources Code Sections 4292 and 4293***

California Public Resources Code (PRC) Section 4292 states:

> [A]ny person that owns, controls, operates, or maintains any electrical transmission or distribution line…shall, during such times and in such areas as are determined to be necessary by the director or the agency, has primary responsibility for fire protection of such areas, maintain around and adjacent to any pole or tower which supports a switch, fuse, transformer, lightening arrester, line junction, or dead end or corner pole, a firebreak which consists of a clearing of not less than 10 feet in each direction from the outer circumference of such a pole or tower.

PRC Section 4293 states:

> [A]ny person that owns, controls, operates, or maintains any electrical transmission or distribution line upon any mountainous land, or in forest-covered land, or grass-covered land shall, during such times and in such areas as are determined to be necessary by the director or the agency which has primary responsibility for the fire protection of such area, maintain a clearance of the respective distances which are specified in this section in all directions between all vegetation and all conductors which are carrying electric current:
>
> (a) For any line which is operating at 2,400 or more volts, but less than 72,000 volts, four feet.
> (b) For any line which is operating at 72,000 or more volts, but less than 110,000 volts, six feet.
> (c) For any line which is operating at 110,000 or more volts, 10 feet.
>
> In every case, such distance shall be sufficiently great to furnish the required clearance at any position of the wire or conductor when the adjacent air temperature is 120 degrees Fahrenheit, or less. Dead trees, old decadent or rotten trees, trees weakened by decay or disease, and trees or portions thereof that are leaning toward the line which may contact the line from the side or may fall on the line shall be felled, cut, or trimmed so as to remove such hazard.

#### *Red-Flag Fire Warning and Weather Watches*

Like PRC Sections 4292 and 4293, red-flag warnings and fire-weather watches aim to prevent fire events and reduce the potential for substantial damage. When extreme fire weather or behavior is present or predicted in an area, a red-flag warning or fire-weather watch may be issued to advise local fire agencies that these conditions are present. The National Weather Service issues red-flag warnings and fire-weather watches, and CAL FIRE provides safety recommendations for preventing fires. These include clearing and removing vegetation and ensuring the proper use of equipment.

### Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, "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 the City of San José and the County of Santa Clara do not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section includes a summary of local public services-related policies, plans, or programs for informational purposes. Although LS Power Grid California, LLC ("LS Power") is not subject to local discretionary permitting, ministerial permits would be secured as appropriate.

### *County of Santa Clara General Plan*

The County of Santa Clara General Plan is a comprehensive long-range general plan for the physical development of unincorporated County lands (County of Santa Clara, 1994). The following relevant public service goals and policies from the County of Santa Clara General Plan were reviewed and provided below for informational purposes.

**Policy C-HS 18** Local government, business, and community organizations should cooperate in preparing the most effective emergency response plans and procedures feasible.

**Goal 5.1** All urbanized areas provided efficiently with necessary urban services and facilities.

**Goal 5.2** Optimal and efficient use of all new and existing infrastructure.

### *City of San José General Plan*

The following public service policies from the City of San José General Plan (City of San José, 2024) are relevant to the Proposed Project and are provided for informational purposes.

**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-3.15** Apply demand management principles to control hazards through enforcement of fire and life safety codes, ordinances, permits and field inspections.

**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-3.19** 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.

### 5.15.3 IMPACT QUESTIONS

#### 5.15.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to public services comes from the California Environmental Quality Act (CEQA), Appendix G Environmental Checklist. According to the CEQA Environmental Checklist, a project may cause a potentially significant impact if it 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 public services:
    - Fire protection
    - Police protection
    - Schools
    - Parks
    - Other public facilities

#### 5.15.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing Proponent's Environmental Assessments* (CPUC, 2019), there are no additional CEQA Impact Questions required for public services.

### 5.15.4 IMPACT ANALYSIS

#### 5.15.4.1 Public Services Impact Analysis

**Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services?**

**Fire and Police Protection**

**Less-Than-Significant Impact.** The Proposed Project would construct two new high-voltage direct current (HVDC) terminals and a system tie to the existing Metcalf and San Jose B substations, which would increase energy capacity and controllability in the Proposed Project area and Greater Bay Area. No expansion of existing or construction of new government facilities is proposed. Therefore, the Proposed Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities.

Fire, emergency, and police services currently serve, and would continue to serve, the areas in which the existing San Jose B substation, Metcalf substation, and the Proposed Project are located. The Proposed Project would not result in the need for new or additional public services because it would not directly induce population growth or result in the construction of residential or other land uses that would indirectly induce area population growth. It is not anticipated that the Proposed Project would adversely affect the use or operation of fire, police protection, or emergency services. The Proposed Project would not adversely impact service ratios, response times, or other performance objectives of the fire and police services in the area; thus, no new or physically altered governmental facilities or the need for new or physically altered governmental facilities would result from the Proposed Project.

Proposed Project work areas would be cleared or trimmed of vegetation by LS Power before staging construction equipment, thus minimizing the probability of a fire during construction. Although the need for emergency services may arise during construction of the Proposed Project, such a need would not substantially affect the provision of existing emergency services or require the provision of service beyond existing capacities. Construction is not anticipated to permanently affect response times because construction lane or road closures would be temporary and would be coordinated with local jurisdictions and emergency service providers, and traffic control would be implemented, as necessary and described in **Section 5.17**, *Transportation*.

As discussed in **Section 5.14**, *Population and Housing*, the Proposed Project would employ up to approximately 250 construction workers at peak construction. Workers would likely commute from the surrounding areas at an average distance of approximately 15 miles. The Proposed Project would not require a substantial number of workers to move to the area permanently. Therefore, the Proposed Project would not result in a permanent need for new or additional public services because it would not directly induce population growth or result in the construction of residential or other land uses that would indirectly induce area population growth.

At the proposed Skyline and Grove terminal construction sites and proposed staging areas, perimeter security fencing would be installed around the outer limits of the Proposed Project work area. Lighting would also be installed for security purposes during construction. Construction crews would lock up and secure each worksite to prevent theft or vandalism associated with work equipment or supplies at the completion of each workday. Once built, the permanent perimeter physical security system around each terminal station would consist of an approximately eight-foot-tall security wall and security cameras placed throughout the site. Therefore, the Proposed Project is not anticipated to encourage criminal activities that would result in a need for increased police services.

As discussed in **Section 5.17**, traffic control measures associated with construction of the Proposed Project on major streets would be implemented pursuant to all applicable industry standards and applicable local jurisdictional agency review. For installation of underground transmission lines, LS Power would coordinate with the appropriate emergency (fire and police) personnel prior to construction to ensure that construction activities and associated lane closures would not substantially affect emergency response vehicles. The Proposed Project is not anticipated to impede ingress and egress of emergency vehicles or impact emergency response times during construction and operation. Any lane or road closures associated with construction of the Proposed Project would be temporary and would be coordinated with local jurisdictions and emergency service providers and subject to local agency approved traffic control plans.

Operation of the Proposed Project facilities would not impede emergency vehicle response times, as operation of the Proposed Project facilities would not require any lane or road closures and would require only minimal staffing that would not increase traffic levels near the Proposed Project. Lane closures would only be necessary for underground vault inspections that would occur periodically and during maintenance of the proposed underground transmission lines. Any lane or road closures associated with maintenance of the Proposed Project would be temporary and would be coordinated with local jurisdictions and emergency service providers. Therefore, impacts to emergency response times would be less than significant during construction and operation of the Proposed Project.

**PG&E Facility Upgrades**

In order to integrate the proposed HVDC terminals and new Grove to Skyline 320 kV DC transmission line into the existing transmission system, PG&E would be required to perform upgrades at two existing substations: modifications to the Metcalf substation and expansion of the San Jose B substation (refer to **Section 3.3.5**, *Other Potentially Required Facilities*). These upgrades would occur within and adjacent to the existing substation facilities. The PG&E facility upgrades would also include a new water line to the existing Metcalf substation, which would extend approximately 800 feet north-northeast from the Metcalf substation and connect to a 16-inch water main near the corner of Metcalf Road and Malech Road, which is served by the Great Oaks Water District. Construction and continued operation of these substation facilities, as well as construction of the new water line, would not result in substantial adverse physical impacts associated with the provision of new or physically altered police or fire protection services. Upgrades at the PG&E facilities would not affect response times, service ratios, or other key police and fire protection services metrics. Impacts would be less than significant.

**Schools, Parks, and Other Public Facilities**

**Less-Than-Significant Impact.** It is not anticipated that the Proposed Project would adversely affect the use or operation of any schools, parks, or other public facilities such as libraries or hospitals in the vicinity of the Proposed Project. The Proposed Project would not generate the need for new or additional public services because it would not result in construction of residential or other land uses that would induce population growth in the area. As discussed in **Section 3.2.3**, *System Reliability*, the Proposed Project would not provide electrical service to any additional end users beyond those already being served by the existing system; rather, existing users and areas presently served by the existing system would be supported by the Proposed Project infrastructure. The Proposed Project would not generate new residents for the area's schools or parks, and access to these schools and parks would not be substantially impacted (refer to the analysis in **Sections 5.16** and **5.17** for a full discussion of potential impacts related to parks, and transportation and traffic, respectively).

Construction of the Proposed Project transmission lines would require temporary lane or road closures, which have the potential to temporarily delay travel time to these public facilities. However, coordination with local jurisdictions and emergency service providers and the traffic control plans (discussed in **Section 5.17***)* would include measures to minimize delays and provide detours if necessary. Operation of the Proposed Project would not require any lane or road closures and would require only minimal staffing that would not increase traffic levels near the Proposed Project. Lane closures would only be necessary for underground vault inspections that would occur periodically and during maintenance of the proposed underground transmission line.

Any lane or road closures associated with maintenance of the Proposed Project would be temporary and would be coordinated with local jurisdictions and emergency service providers.

Thus, the Proposed Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or the need for new or physically altered governmental facilities based on performance objectives, in which the construction of which could cause significant environmental impacts. Less-than-significant impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Construction and continued operation of these substation facilities and new water line would not result in substantial adverse physical impacts associated with the provision of new or physically altered parks, schools, or other public services. The construction and operation of these facilities would not require alteration of existing, or construction of new parks, schools, or other public services. Impacts would be less than significant.

### 5.15.5 CPUC DRAFT ENVIRONMENTAL MEASURES

There are no CPUC Draft Environmental Measures suggested for public services.

### 5.15.6 APPLICANT PROPOSED MEASURES

No Applicant Proposed Measures for public services would be implemented for the Proposed Project.

### 5.15.7 PG&E BEST MANAGEMENT PRACTICES

No public services Best Management Practices have been included for PG&E's scope of work.

## 5.16 RECREATION

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| 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? | | | X | |
| b. | Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | | | | X |
| c. | Reduce or prevent access to a designated recreation facility or area? | | | X | |
| 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? | | | X | |
| e. | Damage recreational trails or facilities? | | | X | |

This section describes recreation resources and facilities within the area of the Proposed Project, as well as the potential impacts that could result from construction and operation and maintenance (O&M) of the Proposed Project. A recreation area is defined herein as any site or facility that is used for recreational activities, including national, state, county, city, or private parks or trails; open space; cultural centers and museums; campgrounds; and private recreational sites, such as golf courses, amusement parks, and amphitheaters.

### 5.16.1 Environmental Setting

#### 5.16.1.1 Recreational Setting

The Proposed Project alignment spans approximately 13 miles within the City of San José and unincorporated County of Santa Clara. The recreational analysis within this section involved a review of various documents, interactive web maps, aerial imagery, general plans of the City of San José and the County of Santa Clara, and the County of Santa Clara Trail Master Plan. There are numerous recreational areas within a 0.5-mile buffer of the Proposed Project boundary, as listed in **Appendix 5.16-A**, *Existing Recreational Uses Table* and illustrated in **Figure 5.16-1**, *Recreational Resources Map*. Data associated with the volume of use of the recreational resources was not available.

As noted in **Appendix 5.16-A**, there are eight recreational resources within 0.5 mile of the proposed Skyline terminal site. Three of these recreational resources are located within or adjacent to the proposed terminal site: Guadalupe River Park and Guadalupe River Trail are located within the property boundary but outside of the proposed development area; and Ryland

Parkway Trail is located immediately north of the property boundary. These resources are described as follows:

- Guadalupe River Park provides 2.6 miles of biking and pedestrians trails, several athletic courts, gardens, plazas, and art installations (Guadalupe River Park Conservancy, 2023). The park hosts nature classes, summer camps, and field trips.

- Guadalupe River Trail is a nine-mile biking and pedestrian trail that connects southern San José to the southern end of the San Francisco Bay (City of San José, 2023b).

- Ryland Parkway Trail is a 0.4-mile trail on the northern edge of downtown San José that connects Ryland Parkway to the Guadalupe River Trail and Guadalupe River Park. The trail is a wide sidewalk along Ryland Street.

There are 46 recreational resources located within 0.5 mile of the proposed Grove to Skyline 320 kilovolt (kV) direct current (DC) transmission line alignment. Of these 46 recreational resources, six are located adjacent to the proposed underground Grove to Skyline 320 kV DC transmission line (Cesar Chavez Park, Parque de los Pobladores, Cadwallader Park, Santa Clara County Fairgrounds, Coyote Creek Parkway, and Coyote Creek Trail) and one is located within the proposed transmission line alignment (Butterfield Overland National Historic Trail). These resources are described as follows:

- Cesar Chavez Park is a 3.4-acre park located between West San Fernando Street, East San Carlos Street, and South Market Street. This plaza provides a gathering place in downtown San José.

- Parque de los Pobladores is a 0.7-acre park located between West Willam Street, South First Street, and South Market Street. This park provides a gathering place in downtown San José.

- Cadwallader Park is a 0.6-acre park located between Goodyear Street, South First Street, and South Second Street. Cadwallader Park provides a gathering place in downtown San José.

- The Santa Clara County Fairgrounds are located southeast of the intersection of Monterey Road and Tully Road and provide nearly four acres of event area under roof, 20 acres of lawn and paved outdoor space, plus 40 acres of parking. The Santa Clara County Fairgrounds is home to the Santa Clara County Fair and serves as a concert and event venue as well.

- Coyote Creek Trail is planned and partially developed as one of the longest trail systems, ultimately extending from the San Francisco Bay to the City of San José's southern boundary. The Coyote Creek Trail is a multi-use trail that provides views of the waterway and urban and rural settings.

- Coyote Creek Parkway is a scenic parkway that meanders for 15 miles, providing a paved multi-use trail for hikers, bicyclists, and rollerbladers. South of Metcalf Road, an equestrian trail parallels the paved trail.

- The Butterfield Overland National Historic Trail is an historic alignment along a heavily urban environment, which coincides with existing developed roadways within the Proposed Project boundary (South Market Street, First Street, and Monterey Road). Butterfield Overland National Historic Trail crosses the proposed underground Grove to Skyline 320 kV DC transmission line at Devine Street, and this trail overlaps the proposed underground Grove to Skyline 320 kV DC transmission line alignment for approximately 12 miles from Santa Clara Street to the southern boundary of the proposed Grove terminal. The trail runs along the southwest side of the proposed Grove terminal.

There are four recreational resources located within 0.5 mile of the proposed Metcalf to Grove 500 kV transmission line. Two of these resources are located within the proposed Metcalf to Grove 500 kV transmission line alignment (Coyote Creek Parkway and Coyote Creek Trail, described above). The proposed Metcalf to Grove 500 kV transmission line traverses through the Coyote Creek Parkway and overlaps the Coyote Creek Trail alignment.

There are four recreational resources located within 0.5 mile of the proposed Grove terminal site. Three of these resources are located adjacent to the proposed terminal site (Butterfield Overland National Historic Trail, Coyote Creek Parkway, and Coyote Creek Trail). The Butterfield Overland National Historic Trail runs along the southwest side of the proposed Grove terminal site, while the Coyote Creek Parkway and Coyote Creek Trail are located adjacent to the northeast side of the proposed Grove terminal site.

### 5.16.2 Regulatory SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 5.16.2.1 Recreation Regulatory Setting

**Federal**

The National Park System is the administrative agency over the Butterfield Overland National Historic Trail.

The National Trail System Act SEC. 9. [16USC1248] (a) The Secretary of the Interior or the Secretary of Agriculture as the case may be, may grant easements and rights-of-way upon, over, under, across, or along any component of the national trails system in accordance with the laws applicable to the national park system and the national forest system, respectively: Provided, that any conditions contained in such easements and rights-of-way shall be related to the policy and purposes of this Act.

**State**

There are no applicable state regulations for recreation that apply to the Proposed Project.

**Local**

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, "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 the City of San José and the County of Santa Clara do not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section includes a summary of local recreation-related policies, plans, or programs for informational purposes. Although LS Power Grid California, LLC ("LS Power") is not subject to local discretionary permitting, ministerial permits would be secured as appropriate.

### *County of Santa Clara General Plan*

The County of Santa Clara General Plan (1994) encourages keeping rural areas rural, providing policies to promote conservation, productive use of their natural resources, and public recreation. The strategies and policies outlined in the General Plan at the Countywide level acknowledge the importance of recreational resources to the County as a whole and the need for multi-jurisdictional efforts to continue to preserve recreational lands. Recreation goals, strategies, and policies from the County of Santa Clara General Plan were reviewed, and a summary is provided below for informational purposes.

**Policy C-PR 5** Water resource facilities, utility corridors, abandoned railroad tracks, and reclaimed solid waste disposal sites should be used for compatible recreational uses, where feasible.

**Policy C-PR 7** Opportunities for access to regional parks and public open space lands via public transit, hiking, bicycling, and equestrian trails should be provided. Until public transit service is available, additional parking should be provided where needed.

**Policy C-PR 8** Facilities and programs within regional parks and public open space lands should be accessible to all persons, regardless of physical limitations, consistent with available financial resources, the constraints of natural topography, and natural resource conservation.

**Policy C-PR 30** Trails shall be temporarily closed when conditions become unsafe or environmental resources are severely impacted. Such conditions could include soil erosion, flooding, fire hazard, environmental damage, or failure to follow the specific trail management plan (see Countywide Trails Master Plan - Design and Management Guidelines).

**Policy C-PR 30.1** Level-of-use and types-of-use on trails shall be controlled to avoid unsafe conditions or severe environmental degradation.

**Policy C-PR 33.5** Public improvements, such as road widenings, bridge construction, and flood control projects, that may impact existing or proposed trails should be designed to facilitate provision of shared use.

### *County of Santa Clara Ordinance Code – Recreational Uses*

The County of Santa Clara Ordinance Code defines Park Property or Park Areas as: Any real property (or portions thereof) owned, leased, or licensed by the County or under County use or control through easement or other right and which is operated, maintained, or managed by or for the Department. Criteria for improvements (Article 6) Section B14-26.1 Disfiguring property states: No person shall cut, carve, mark, paste or fasten any bill or advertisement, inscribe on or otherwise disfigure any tree, fence, wall, building, sign or monument or any other object within any Park area.

Article 2 Trails; Section B14-42.1 Trail Use states:

(a) The Director may establish trails and designate the uses allowable on trails in Park Areas.
(b) The Director may temporarily close a trail or prohibit the operation or use of any trail, even where prior permission or authorization has been granted, in order to ensure the safety of persons or property or to protect the environment.
(c) No person shall violate or fail to comply with the allowable trail use restrictions established by the Director or trail closures or restrictions imposed by the Director.

Article 5 Geological; Archeological, Section B14-25.1 – Excavations states:

(a) No person shall dig or remove any dirt; stone; rock; archeological, historical, cultural or paleontological artifacts or other substance; or make any excavation or quarry any stone within any Park Area, except by Valid Permit issued by the Director and in accordance with applicable laws.
(b) No person shall cause, assist in, or set off any explosive or expansive materials within any Park Area for the purpose of excavation or for other reasons, except by Valid Permit issued by the Director.
(c) A person who violates or fails to comply with subsection (b) of this Section is guilty of a misdemeanor.

### *City of San José General Plan*

The City of San José (2024) 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. Recreation goals, strategies, actions, and policies from the City of San José General Plan were reviewed, and a summary is provided below for informational purposes.

**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-ways. 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: all outdoor areas managed by the department of parks, recreation and neighborhood services which are identified as a City park by the City, made available for use by the public as a park for recreation or open space purposes, and over which the City has the right of use for such purposes. The term "park" is further defined to not include areas within a City park that the City has designated for use as picnic areas, athletic fields, sports areas, trails and pathways, gardens and bodies of water, the use of which is 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.

Section 13.44.060, Non-Public Areas – Posting Required – Entering or Damaging Property Prohibited states:

A. By posting appropriate notices, the director of the department of recreation, parks and community services may exclude the public from or limit use of any road, area, building, lands, trail, natural feature, water area or facility in a city park which is used for access, storage, parking, shop, office, residence or utility purposes, or other park or recreational use, or any combination thereof, whenever public access to the same will endanger the public health or safety, interfere with such use, or cause damage to such public property or natural resources. The director may also by appropriate means exclude the public from the place of any construction, repair or demolition activity. No person shall enter or remain or permit any person in their control to enter or remain in any such part of a city park when the same is closed to the public, unless authorized to do so by the director.

B. No person shall unlock, open, remove, move or tamper with any gate, door, window, ventilator, skylight, screen grate, fence, lock or barrier, or any other thing maintained by the director to exclude the public from a city park or portion thereof, or tamper with, remove or deface any sign, legend or other notice designating the same as dangerous or prohibiting entry therein.

### 5.16.3 Impact Questions

#### 5.16.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to recreation comes from the California Environmental Quality Act (CEQA), Appendix G Environmental Checklist. According to the CEQA Environmental Checklist, a project may cause a potentially significant impact if it 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; or

- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

#### 5.16.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing and Proponent's Environmental Assessments* (CPUC, 2019), the following additional CEQA Impact Questions are required for recreation. Would the project:

- Reduce or prevent access to a designated recreation facility or area?

- 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?

- Damage recreational trails or facilities?

### 5.16.4 Impact Analysis

#### 5.16.4.1 Recreation Impact Analysis

**Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

**Less-Than-Significant Impact.** The use of parks and recreational facilities is closely tied to population; as population increases, the use of existing parks and recreational facilities can be expected to increase proportionally. Similarly, the loss of existing parks and recreational facilities would result in a concentration of use at remaining parks and facilities.

As presented in **Section 5.14**, *Population and Housing*, the Proposed Project would not induce any population growth during the construction or operational phases. The Proposed Project would not create a need for additional housing or create long-term population immigration sufficient to result in a permanent increase in parks or recreational facilities use. Minimal new local employees would be hired to operate and maintain the proposed high-voltage direct current (HVDC) terminals and transmission lines.

In addition, the Proposed Project would not increase the use of the recreational resources identified in **Section 5.16.1**, *Environmental Setting* that are near the Proposed Project area. During construction, roadways, including Monterey Road and Coyote Ranch Road, may experience temporary delays due to lane or road closures; however, all recreational resources in these areas would be accessible through alternative routes, and, therefore, usage would not be directly impacted. An approximately 0.2-mile portion of Coyote Ranch Road would be reconstructed to shift the road approximately 200 feet south and a new turnaround would be installed at the entrance of Coyote Ranch on Santa Clara County Parks land. Temporary restrictions (e.g., temporary closure of select segments of trails and temporary closure of select access areas) during construction may occur along Guadalupe River Park, Guadalupe River Trail, Ryland Parkway Trail, Butterfield Overland National Historic Trail, Coyote Creek Parkway, and Coyote Creek Trail, which may indirectly cause increased demand for nonrestricted public parks and trails in the vicinity of the Proposed Project. However, because of the number of other recreational resources in the Proposed Project area, the relatively short duration of the Proposed Project's construction within these resources, and the phased construction schedule (whereby it is unlikely that all of these resources would be restricted simultaneously), these impacts would be less than significant.

The proposed Metcalf to Grove 500 kV transmission line would travel along a portion of the Coyote Creek Trail, approximately 0.8 mile, within the Coyote Creek Parkway. Along the northern portion of this segment of Coyote Creek Trail, an approximately 0.5-mile portion of trail would be shifted approximately 240 to 540 feet north, away from Coyote Creek and the associated riparian area on Santa Clara County Parks land. The new alignment for this portion of Coyote Creek Trail would be constructed adjacent to and along the existing and proposed alignment for Coyote Ranch Road. In addition, the proposed Metcalf to Grove 500 kV transmission line would be constructed underground within 0.02 mile of Coyote Creek Trail immediate east of the Grove terminal site. LS Power would implement **Applicant Proposed Measure (APM) REC-1**, *Trail Management Plan*, which would require the preparation of a Trail Management Plan (TMP) to identify detour route(s) if required, as well as trail-specific traffic control and safety measures for pedestrians, trail users, and motorists. **APM REC-2**, *Trail Safety Crossing Measures* would require that LS Power provide a crossing guard for the 0.8-mile portion of the Coyote Creek Trail that would be directly impacted by construction activities or provide a detour route if crossing is not practical. Closures of portions of the trail may lead to increased use of other portions of the trail; however, the increase would be temporary in nature. In addition, the impacted areas of the trail would be restored in accordance with **APM REC-3**, *Trail Restoration*.

Furthermore, the Proposed Project would not increase the use of other existing recreational facilities in the vicinity such that physical deterioration would occur due to the quantity of existing local parks and the short construction duration; therefore, impacts would be less than significant.

**PG&E Facility Upgrades**

In order to integrate the proposed HVDC terminals and new Grove to Skyline 320 kV DC transmission line into the existing transmission system, PG&E would be required to perform upgrades at two existing substations: modifications to the Metcalf substation and expansion of the San Jose B substation (refer to **Section 3.3.5**, *Other Potentially Required Facilities*). These upgrades would occur within and adjacent to the existing substation facilities. The PG&E facility upgrades would also include a new water line to the existing Metcalf substation, which would extend approximately 800 feet north-northeast from the Metcalf substation and connect to an existing 16-inch water main near the corner of Metcalf Road and Malech Road, which is served

by the Great Oaks Water Company. Construction of these upgrades would occur concurrently with construction of the rest of the Proposed Project and for a limited duration.

The modifications to the existing Metcalf substation and expansion of the existing San Jose B substation would not induce any population growth during the construction or operational phases, nor would it create a need for additional housing or long-term population immigration sufficient to result in a temporary or permanent increase in parks or recreational facilities use. Due to the number of other recreational resources in the area, the relatively short duration of the construction near these resources, and the construction schedule (whereby it is unlikely that all of these resources would be restricted simultaneously), these impacts would be less than significant.

**Would the project 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 Impact.** The proposed Metcalf to Grove 500 kV transmission line would be constructed within and/or along an approximately 0.8-mile portion of the Coyote Creek Trail within the Coyote Creek Parkway. Within this portion of Coyote Creek Trail, approximately 0.5-mile of the trail would be relocated approximately 240 to 540 feet to the north, away from Coyote Creek, as this portion of the trail is frequently flooded and subject to closures. In addition, the proposed Metcalf to Grove 500 kV transmission line would be constructed underground within 0.02-mile of the trail immediate east of the Grove terminal site. Following construction, the impacted areas of the trail would be restored in accordance with **APM REC-3**. Therefore, impacts would be less than significant.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Construction would occur concurrently with construction of the rest of the Proposed Project and for a limited duration. This work would not take place within any existing recreational facilities. In addition, the proposed upgrades would not result in a population increase and would not require the construction or expansion of any recreational facilities. As a result, there would be no adverse physical effect on the environment from the construction of new or expansion of existing recreational facilities. Therefore, no impacts would occur under this criterion.

**Would the project reduce or prevent access to a designated recreation facility or area?**

**Less-Than-Significant Impact.** The Guadalupe River Park and Guadalupe River Trail are located directly north of and within the parcel boundary of the proposed Skyline terminal site. However, limits of construction would be confined to the area east of Guadalupe River Trail. Ryland Parkway Trail is located outside of but adjacent to the northern boundary of the proposed Skyline terminal site. Although not anticipated, any road closures affecting access to these resources would comply with **APM TRA-1**, *Traffic Control Plan*, which would require the preparation of a Traffic Control Plan (TCP). The TCP would provide detour routes or otherwise maintain access to the affected recreational resources, including pedestrian and bicycle access along trail routes within public roads, through the implementation of signage, barriers, traffic control personnel, etc.

The six existing recreational uses that are located adjacent to the boundary of the proposed Grove to Skyline 320 kV DC transmission line alignment include Cesar Chavez Park, Parque de los Pobladores, Santa Clara County Fairgrounds, Cadwallader Park, Coyote Creek Parkway, and Coyote Creek Trail. The one existing recreational use that is located within the proposed alignment of the Grove to Skyline 320 kV DC transmission line is the Butterfield Overland National Historic Trail. The proposed Grove to Skyline 320 kV DC transmission line would be constructed underground within the existing public (roadway) right-of-way. A trench would be made within the paved roadway to install the duct bank to house the proposed transmission line and supporting infrastructure. The Butterfield Overland National Historic Trail is not a continuous traditional trail from end to end but is a corridor that passes through communities, urban areas, public lands, and wilderness. In the Proposed Project area, the Butterfield Overland National Historic Trail alignment is along Monterey Road, a large roadway, and travels through a developed urban area. Lane closures are anticipated to be required along Monterey Road that may affect the bike lane that coincides with the Butterfield Overland National Historic Trail or access to the recreational resources listed above. **APM TRA-1** would be implemented by LS Power to maintain access to these resources.

During construction of the proposed Metcalf to Grove 500 kV transmission line (which would occur predominately in Coyote Ranch Road within Coyote Creek Parkway), temporary closure of an approximately 0.02-mile portion of the Coyote Creek Trail, adjacent to the proposed Grove terminal site would be required in order to protect public safety during construction. This temporary disruption could result in a marginal reduction of access to this trail. An additional approximately 0.8 mile portion of Coyote Creek Trail is located within or adjacent to the proposed Metcalf to Grove 500 kV transmission line alignment and could also result in a reduction of access to this segment of the trail during construction. Though the temporary disruptions in the use of this trail may be a short-term inconvenience to users, many other nearby public recreational options would remain available during the temporary access restriction. Coyote Creek Trail from Metcalf Road to Bailey Avenue is also typically closed during much of the wet season due to flooding of two low water trail crossings of Coyote Creek. LS Power would implement **APM REC-1**, which would require the preparation of a TMP to identify detour route(s) if required, as well as trail-specific traffic control and safety measures for pedestrians, trail users, and motorists, so trail access would be maintained during construction. **APM REC-2** would require that LS Power provide a crossing guard for the approximately 0.8-mile portion of the Coyote Creek Trail that would be directly impacted by construction activities or provide a detour route if crossing is not practical. Construction of the proposed Grove terminal and the proposed Metcalf to Grove 500 kV transmission line would also result in temporary, reduced access to the Butterfield Overland National Historic Trail. **APMs REC-1** and **REC-2** would be implemented as required and all trail closures or detours would be temporary in nature.

There are three recreational resources, Coyote Creek Parkway, Coyote Creek Trail, and Butterfield Overland National Historic Trail, located adjacent to the proposed Grove terminal site. **APMs REC-1**, **REC-2**, and **TRA-1** would be implemented by LS Power during construction.

O&M activities associated with the Proposed Project would not change, reduce, or prevent access to these designated recreation resources or areas because the transmission line would be constructed underground, and the proposed HVDC terminal sites would be remotely operated. Therefore, construction and O&M of the Proposed Project would not reduce or prevent access to any designated recreation facilities or areas. Less-than-significant impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, outside of any designated recreational facilities. The proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. The existing San Jose B substation is located near the Guadalupe River Park, Guadalupe River Trail, and Ryland Parkway Trail as discussed herein. In addition, Coyote Creek Parkway and Coyote Creek Trail are located adjacent to the existing Metcalf substation. Due to the relatively short duration of the construction near these resources, and the construction schedule (whereby it is unlikely that all of these resources would be restricted simultaneously), these impacts would be less than significant

**Would the project 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 Impact.** The proposed Metcalf to Grove 500 kV transmission line would be constructed within an approximately 0.8 mile portion of Coyote Creek Trail within the Coyote Creek Parkway. Along the northern portion of this segment of Coyote Creek Trail, approximately 0.5-mile of the trail would be shifted approximately 240 to 540 feet north, away from Coyote Creek and the associated riparian area on Santa Clara County Parks land. The new alignment for this portion of Coyote Creek Trail would be constructed adjacent to and along the existing and proposed alignment for Coyote Ranch Road. In addition, the proposed Metcalf to Grove 500 kV transmission line would be constructed underground within 0.02 mile of Coyote Creek Trail immediate east of the Grove terminal site. There are no other permanent changes proposed within recreational facilities, and no substantial changes to the cultural or geologic character of recreational facilities would occur. Further discussion regarding aesthetic, biological, cultural, geologic, and hydrologic resources can be found in the following sections: **Section 5.1**, *Aesthetics*; **Section 5.4**, *Biology*; **Section 5.5**, *Cultural Resources*; **Section 5.7**, *Geology, Soils, and Paleontological Resources*; and **Section 5.10**, *Hydrology and Water Quality*. Impacts would be less than significant.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, outside of any designated recreational facilities. The proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. The existing San Jose B substation is located near the Guadalupe River Park, Guadalupe River Trail, and Ryland Parkway Trail as discussed herein. In addition, Coyote Creek Parkway and Coyote Creek Trail are located adjacent to the existing Metcalf substation. Construction activities would be temporary in nature and would not reduce the scenic, biological, cultural, geologic, or other important characteristics that contribute to the value of these recreational facilities. Therefore, no impacts to this criterion would result.

**Would the project damage recreational trails or facilities?**

**Less-Than-Significant Impact**. The construction of the Proposed Project would result in direct impacts to approximately 0.02-mile of the existing Coyote Creek Trail. However, as discussed in **Section 3.7.3.2**, *Site Restoration*, upon completion of construction activities, LS Power would restore the impacted portion of the trail to preconstruction conditions. An additional approximately

0.8 mile portion of Coyote Creek Trail is located adjacent to the proposed Metcalf to Grove 500 kV transmission line alignment and could also result in impacts during construction. LS Power would implement **APM REC-3** to ensure that any damage to the Coyote Creek Trail from construction of the Proposed Project would be repaired. Therefore, impacts to recreational facilities would be less than significant.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. The PG&E facility upgrades would not involve roadway or trail improvements. No damage to recreational trails or facilities is anticipated as part of the proposed modifications at the existing Metcalf substation, expansion of the existing San Jose B substation, or the proposed new water line. Therefore, no impact would occur.

### 5.16.5 CPUC Draft Environmental Measures

There are no CPUC Draft Environmental Measures suggested for recreation resources.

### 5.16.6 Applicant Proposed Measures

The following recreation-specific APMs would be implemented for the Proposed Project:

**APM REC-1: Trail Management Plan**

LS Power shall coordinate with the City of San José, County of Santa Clara, and the National Park Service for the preparation of the Proposed Project's TMP. The TMP shall identify if a detour route(s) is required, as well as provide trail-specific traffic control and safety measures for pedestrians, trail users, and motorists.

**APM REC-2: Trail Safety Crossing Measures**

If Coyote Creek Trail from Metcalf Road to Bailey Avenue is not already closed by Santa Clara County Parks due to flooding of low water trail crossings of Coyote Creek, LS Power's construction contractor shall provide a crossing guard, as needed during periods of active construction along the approximately 0.8-mile portion of Coyote Creek Trail that would be directly impacted by construction of the Proposed Project. Alternatively, if use of a crossing guard is not practical during certain construction activities (i.e., a trail closure is required), the Coyote Creek Trail detour route identified in the TMP shall be implemented. Signage and flagging may be used to help direct trail users and provide safety for both trail users and construction crews.

**APM REC-3: Trail Restoration**

Areas of Coyote Creek Trail that are temporarily disturbed by the Proposed Project activities shall be restored to approximate preconstruction conditions.

### 5.16.7 PG&E Best Management Practices

No recreation resources Best Management Practices have been included for PG&E's scope of work.

## 5.17 TRANSPORTATION

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestarian facilities? | | | X | |
| b. | Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? | | | X | |
| c. | Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | | | X | |
| d. | Result in inadequate emergency access? | | | X | |
| e. | Create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations? | | | X | |
| f. | Interfere with walking or bicycling accessibility? | | | X | |
| g. | Substantially delay public transit? | | | X | |

This section describes transportation in the area of the Proposed Project, as well as potential impacts resulting from construction and operation and maintenance (O&M) of the Proposed Project.

### 5.17.1 ENVIRONMENTAL SETTING

#### 5.17.1.1 Circulation System

The County of Santa Clara's circulation system is a mix of rural roadways and urban networks. Vehicle travel is the dominant form of transport in the area. State highways are part of a regional network that provide intra- and interregional connections between the unincorporated County, cities, and other counties in the region. The major regional vehicular access to the Proposed Project area is Interstate (I)-280 and State Route (SR)-87 to the proposed Skyline terminal and U.S. Route 101 to the proposed Grove terminal. **Figure 5.17-1**, *Regional Transportation-Related Infrastructure* illustrates the transportation-related infrastructure in the regional area of the Proposed Project, which is discussed in the following sections.

I-280 connects from U.S. Route 101 in the City of San José to I-80 in San Francisco. It is generally an eight-lane freeway in the vicinity of downtown San José. It also has auxiliary lanes between some interchanges. I-280 is located approximately 1.1 miles south of the proposed Skyline terminal; access from I-280 to this terminal is provided via its interchange at Bird Avenue.

Connections are also available indirectly via an interchange with SR-87. The annual average daily traffic (AADT) for the I-280 junction in San José between U.S. Route 101 and I-680 is estimated to be 195,000 vehicles and 172,000 vehicles for the I-280 and Bird Avenue junction (California Department of Transportation ["Caltrans"], 2021a).

SR-87 connects from SR-85 in south San José to U.S. Route 101 near the San José Mineta International Airport. It is generally a four-lane freeway, with auxiliary lanes near the I-280 interchange. The SR-87 high-occupancy vehicle (HOV) lane-widening project was recently completed, providing HOV lanes between Julian Street and SR-85. Connections from SR-87 to the proposed Skyline terminal location are provided via a full interchange at Julian Street and West Taylor Street. SR-87 borders the eastern edge of the proposed Skyline terminal site but is not an immediate access point. SR-87 carries an AADT of approximately 102,000 vehicles at its junction with SR-85, 90,000 vehicles at its junction with I-280, and 70,000 vehicles at its junction with West Taylor Street (Caltrans, 2021a).

U.S. Route 101 traverses across most of the State of California from its northern border with Oregon, south to the County of Los Angeles. It is generally an eight-lane freeway in the vicinity of the City of San José as well as the proposed Grove terminal site. U.S. Route 101 is located approximately 1.5 miles northeast of the proposed Skyline terminal and approximately 0.2 mile east of the proposed Grove terminal. U.S. Route 101 provides access to the proposed Grove terminal site via an interchange with Bailey Avenue. U.S. Route 101 carries an AADT of approximately 168,000 vehicles at its junction with SR-87 and 126,000 vehicles at its junction with SR-85 (Caltrans, 2021a).

### 5.17.1.2 Existing Roadways and Circulation

As discussed in **Section 3.3.4.3**, *Access Roads*, the existing and primary access to the proposed Skyline terminal for both construction and O&M would be from the southern terminus of Santa Teresa Street and the western terminus of Ryland Street. Santa Teresa Street is accessed off Coleman Avenue, which is accessible from the SR-87 interchange with Taylor Street. Coleman Avenue is a four-lane roadway with a wider right-of-way (ROW) to accommodate turn lanes, passing lanes, medians, or other improvements. Santa Teresa Street and Ryland Street are both existing two-lane, approximately 30 feet wide, public paved roads. The Proposed Project includes improvements to upgrade the paved access road apron to the proposed Skyline terminal as required. Coleman Avenue, Santa Teresa Street, and Ryland Street are maintained by the City of San José.

The existing and primary access to the proposed Grove terminal site for both construction and O&M would be from Monterey Road. Monterey Road is a four-lane roadway with an approximately 80-foot-wide ROW to accommodate turn lanes, passing lanes, medians, or other improvements. A new terminal access road would be constructed that connects Monterey Road with the terminal facility's perimeter wall. For access to the proposed Grove terminal from Monterey Road, the Proposed Project includes the installation of a paved access road apron for the new terminal access road and upgrades to the existing access road apron as required. Monterey Road is maintained by the City of San José at this segment.

The Proposed Project's Grove to Skyline 320 kilovolt (kV) underground transmission corridor traverses through downtown San José on the following roadways: Bassett Street, Little Market Street, Market Street, and First Street. It then runs from the intersection of Market Street along First Street (which becomes Monterey Road at West Alma Avenue) in a southeast direction for

approximately 11.4 miles, where it reaches the proposed Grove terminal site. This segment of the proposed transmission corridor runs parallel with SR-87 and U.S. Route 101 on Monterey Road and can be accessed at several points, including, but not limited to, East Saint James Street, Curtner Avenue, East Capitol Expressway, Blossom Hill Road, and Bailey Avenue. Local roads are depicted in **Figure 5.17-2**, *Local Transportation-Related Infrastructure Map.*

The Proposed Project's Metcalf to Grove 500 kV underground transmission corridor would be predominately located within Coyote Ranch Road, which is located south of the existing Pacific Gas and Electric Company (PG&E) Metcalf substation and north-northwest of the proposed Grove terminal in unincorporated County of Santa Clara lands. Coyote Ranch Road intersects Metcalf Road adjacent to the Metcalf substation and extends in a southwesterly direction for approximately 1.1 miles, where it transitions into a private undivided road and terminates directly south of U.S. Route 101. The two-lane roadway is paved and approximately 25 feet wide. There are no sidewalks along Coyote Ranch Road, however, the roadway roughly parallels the Coyote Creek Trail. Coyote Ranch Road is local-serving and primarily provides access to the existing Metcalf substation and to Coyote Ranch, an outdoor event venue.

The new terminal access road at the proposed Skyline terminal site would be approximately 20 feet wide and approximately 150 feet long. The existing and new access roads at the proposed Grove terminal site would each be approximately 20 feet wide and approximately 300 feet long. Construction of these terminal access roads may include grading per the final Proposed Project design. The proposed Skyline and Grove terminals would not include dedicated permanent internal access roads. Rather, the entire proposed terminal facilities would be capped with crushed rock to provide access within and around the facility footprint.

#### 5.17.1.3 Transit and Rail Services

Santa Clara Valley Transportation Authority (VTA) provides bus and light rail service for the County of Santa Clara. Existing transit service in the County of Santa Clara provided by the Santa Clara VTA includes the Stanford Marguerite Shuttle, SamTrans, and Caltrain (see **Figure 5.17-3**, *Local Transportation – Transit and Rail Map*). Within the County of Santa Clara, there are 15 Caltrain stops, including two stops in Palo Alto, two stops in Mountain View, two stops in Sunnyvale, one stop in Santa Clara, five stops in San José, one stop in Morgan Hill, one stop in San Martin, and one stop in Gilroy. There are no active rail stations within 1,000 feet of the Proposed Project terminal sites. The nearest station is the Japantown/Ayer Station, located approximately 0.3 mile northeast of the proposed Skyline terminal, which provides access to the Blue Line and Green Line. The Santa Teresa Light Rail Station is approximately 3.2 miles northwest of the proposed Grove terminal and 0.6 mile southwest of the proposed Grove to Skyline 320 kV direct current (DC) transmission line alignment and is the southern terminus for the Blue Line (Santa Clara VTA, 2023a, 2023b). The Santa Clara Station North is approximately 0.6 mile southeast of the proposed Skyline terminal in downtown San José. The Caltrain light rail route runs parallel to the proposed Grove to Skyline 320 kV DC underground transmission line, starting at the intersection of Monterey Road and Fehren Road and continuing south along Monterey Road past the Proposed Project area to Gilroy. Caltrain operates between 4:22 a.m. and 12:52 a.m. one day in the northbound direction and between 4:51 a.m. and 1:45 a.m. the next day in the southbound direction. Caltrain provides passenger train service seven days a week and provides extended service to Morgan Hill and Gilroy during commuter hours (Caltrain, 2023).

There are numerous bus routes in the vicinity of downtown San José, many of which function on First Street, Second Street, Highway 17, and San Carlos. The closest bus stop to the proposed Skyline terminal site is located approximately 0.3 mile east on North First Street and Bassett Street, and the closest bus stop to the proposed Grove terminal is located approximately 0.8 mile south on Santa Teresa Street and Bailey Avenue. There are several bus stops located along the proposed Grove to Skyline 320 kV DC underground transmission line route on Monterey Road managed by the Santa Clara VTA, including stops near the intersections of Monterey Road and Calle Anondra, Reeder Road, Edenview Drive, Staufer Boulevard, and Phelan Road. Temporary bus stop closures may be required as a result of Proposed Project traffic control activities along Monterey Road, and any bus stop closures would be coordinated with Santa Clara VTA in advance (Santa Clara VTA, 2023a, 2023b).

#### 5.17.1.4 Bicycle Facilities

The City of San José has an established bike network that offers both separated and shared street space. After changes implemented from the Better Bike Plan 2025 in 2020, the City of San José now has a bikeway network of 392 miles, 3,450 bike parking spaces, and a new bikeshare program with 83 stations and over 1,000 bikes. The Better Bike Plan 2025, created in 2020, will expand its multi-use path system and on-street bike network and install more on-street bikeways that appeal to more riders, such as separated bikeways and bike boulevards on low-traffic streets (City of San José, 2020). Improvements to the existing bike lanes on First Street and Monterey Road are proposed to begin in early 2024 as part of the City of San José's Vision Zero campaign, adopted in 2015. Bike lanes from the intersection of First Street and Keyes Street and continuing south along Monterey Road will be upgraded to protected bike lanes in order to support the Vision Zero campaign's goals to increase safety for bicyclists and motorists alike and prevent fatalities and serious injuries related to traffic incidents (City of San José, 2015).

The County of Santa Clara's existing bicycle facilities are classified as follows according to the State of California's system of classification as identified in the Santa Clara Countywide Bike Plan 2018 (County of Santa Clara, 2018):

- Class I (bike path) – A Class I bicycle facility is completely separated from vehicles on a paved ROW and is commonly known as a bike path.
- Multi-use Pathway – A Multi-use Pathway is a Class I bicycle facility that allows both bicyclists and pedestrians to use the facility.
- Class II (bike lane) – A Class II bicycle facility is a striped and stenciled lane on an existing ROW shared with vehicles and is commonly known as a bike lane.
- Class III (bike route) – A Class III bicycle facility is identified through signage and/or pavement markings called "sharrows" indicating that bicyclists and drivers share the same travel lane and is commonly referred to as a bike route.
- Class IV (cycle track) – A Class IV bicycle facility is a striped lane with a vertical and physical separation, such as parking or bollards, from the vehicle travel lane and is commonly referred to as a protected bike lane.

Coleman Avenue, Market Street, First Street, and Monterey Road have on-street bike lanes near the Proposed Project. There is a designated bike path located directly west of the proposed Skyline terminal facility along the Guadalupe River Trail. Ryland Parkway Trail begins at Ryland Park, approximately 850 feet east of the proposed Skyline terminal site and continues west along Ryland Street and north along Santa Teresa Street, where it connects to the Guadalupe River Trail. Ryland Parkway Trail is a sidewalk in the area north of the proposed Skyline terminal and

not a marked bike path. Directly east of the proposed Grove terminal facility, there is a shared use path open to bikers along the Coyote Creek Trail (County of Santa Clara, 2018). Both the Guadalupe River Trail and the Coyote Creek Trail are considered cross county bicycle corridors (CCBCs). The Coyote Creek Trail is typically closed from Metcalf Road to Bailey Avenue during much of the wet season (November through March) due to flooding of two low water trail crossings along Coyote Creek. Bicycle facilities located within 1,000 feet of the Proposed Project area are shown on **Figure 5.17-4**, *Bicycle and Pedestrian Facilities Map*.

#### 5.17.1.5 Pedestrian Facilities

Most roadways around the proposed Skyline terminal site and much of the underground transmission corridor have sidewalks, including Coleman Avenue, Santa Teresa Street, Ryland Street, Little Market Street, Market Street, First Street, and approximately 8.8 miles of Monterey Road. There is also a pedestrian walkway spanning over Monterey Road near the intersection of Blossom Hill Road that connects the sidewalk on the east side of Monterey Road to Endicott Boulevard and Cottle Road, see **Figure 5.17-4**.

#### 5.17.1.6 Vehicle Miles Traveled

Vehicle Miles Traveled (VMT) is a method of transportation analysis that measures the amount of vehicular travel in a geographic region or a given time period. In accordance with Senate Bill (SB) 743, California Environmental Quality Act (CEQA) Guidelines section 15064.3, subdivision (b) was adopted in 2018 and established VMT as the criteria for determining the significance of transportation-related impacts. VMT is a measure of the total number of miles driven to or from a development, sometimes expressed as an average per trip or per person.

The average daily VMT per resident for the City of San José is 9.6 miles (City of San José, 2021). The daily total average VMT on rural and urbanized public roadways in the County of Santa Clara is 34,138,810 miles and 6,139,300 miles for the City of San José (Caltrans, 2021b). There are VMT evaluation tools available for projects within the City of San José and County of Santa Clara that help users conduct a baseline VMT screening evaluation for small- to medium-sized residential, office, and industrial land use projects (City of San José, 2023a; Santa Clara VTA, 2023c, 2023d). The screening criteria generally consists of evaluating if a project falls within a low-VMT area and/or within proximity to transit, estimating the project-generated VMT, and calculating project-generated VMT after reductions from certain VMT-reducing measures have been applied (Santa Clara VTA, 2021). The Santa Clara VTA defers specific thresholds to the local agencies. The City of San José includes screening criteria on projects that are expected to result in less-than-significant VMT impacts based on project description, characteristics, and/or location (City of San José, 2021). Local-serving public facilities are one category of development projects that meets the screening criteria. However, the aforementioned evaluation tools, including screening criteria, are not applicable to the Proposed Project, as it is not a traditional land use project that would generate VMT on a regular basis.

## 5.17.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

### 5.17.2.1 Transportation Regulatory Setting

#### Federal

***Americans with Disabilities Act Standards for Accessible Design***

The Americans with Disabilities Act (ADA) sets forth what is required for a building or facility to be physically accessible to people with disabilities (U.S. Department of Justice, 2010). The Proposed Project would involve reconstruction of all removed curbs and gutters and would be required to comply with ADA standards. The Department of Justice enacted the ADA in 1990, which adopted enforceable accessibility standards for facility design. The revised ADA standards adopted in 2010 set minimum requirements for newly designed and constructed or altered state and local government facilities, public accommodations, and commercial facilities. State and local government facilities must adhere to the following requirements of the 2010 standards:

- Title II regulations at 28 Code of Federal Regulations (CFR) 35.151
- 2004 ADA Accessibility Guidelines at 36 CFR 1191, Appendices B and D

#### State

Caltrans owns the ROWs for the State highway system and is responsible for protecting the public and infrastructure. Caltrans is also the administrating agency for regulations related to traffic safety, including the licensing of drivers, transportation of hazardous and combustible materials, and the safe operation of vehicles. Caltrans also requires transportation permits for the movement of vehicles or loads exceeding the limitations on the size and weight contained in Division 15, Chapter 5, Article 1, Section 35551, of the California Vehicle Code. The County of Santa Clara is under the jurisdiction of Caltrans District 4. The Proposed Project would acquire ministerial transportation permits from Caltrans if required.

#### Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, "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 the City of San José and the County of Santa Clara do not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section includes a summary of local transportation-related policies, plans, or programs for informational purposes. Although LS Power Grid California, LLC ("LS Power") is not subject to local discretionary permitting, ministerial permits would be secured as appropriate.

### *County of Santa Clara General Plan*

The County of Santa Clara General Plan is a comprehensive long-range general plan for the physical development of the County of Santa Clara (County of Santa Clara, 1994). The various elements within the General Plan include strategies and policies for the physical development of the County. The following policies related to transportation have been provided for informational purposes only:

**Policy C-TR 4** Overall transportation planning for Santa Clara County should be integral and consistent with the goals and objectives of comprehensive, countywide planning regarding urban growth management, compact and mixed-use development patterns, environmental quality, and social and economic well-being.

**Policy C-TR 12** It is the goal of this plan to achieve a level-of-service (LOS) no lower than D at peak travel periods on city streets, county roads, expressways, and state highways. However, in certain instances, a lower level of service may be acceptable when LOS D cannot practically be achieved.

**Policy C-TR 18** The entire transportation system should be fully accessible to and be planned and designed to be responsive to the special needs of seniors, school children, low-income, the physically challenged, and transit disabled in accordance with the Americans with Disabilities Act of 1990.

### *Santa Clara Countywide Bicycle Plan*

The 2018 Santa Clara Countywide Bicycle Plan updates the Santa Clara VTA's 2008 Countywide Bicycle Plan. It incorporates several new approaches and changes, including expansion and design expectations of the CCBCs network to include low-stress bikeways. The Plan describes a vision of 10 connected bicycle superhighways, which are CCBCs that provide low-friction, long distance, unbroken bicycle travel, separated from motorists. It also updates the list of Across Barrier Connections (ABCs) to reflect completed projects and changing situations and prioritizes CCBCs and ABCs using criteria approved by the Santa Clara VTA Board of Directors. The Plan expands on recommendations to encompass innovative, cutting-edge solutions and describes Santa Clara VTA's role in implementing the capital projects and education encouragement programs (Santa Clara VTA, 2018). The Santa Clara Countywide Bicycle Plan identifies policies for CCBCs as they connect jurisdictions and provide access to jobs, schools, transit, recreation, services, and homes such as:

**Goal 1** Develop a Comprehensive and Continuous Countywide Bicycle Network

**Policy 1A** Expand the Network: VTA will support construction of CCBCs and ABCs throughout the county, both as stand-alone projects and as part of related transportation projects.

**Policy 2B** Ensure the Network is Easy to Find and Use: VTA will work to ensure it is easy to navigate by bicycle along CCBCs using uniform wayfinding tools such as signs, on-street markings, kiosks, maps, and apps in the locally spoken language.

**Goal 4** Improve Transit Connectivity

**Policy 4A** Improve Bicycle Access to Transit: VTA will link bicycle and transit routes by funding and constructing transit-connected bikeways.

Both the Guadalupe River Trail and the Coyote Creek Trail are listed as potential bicycle superhighway facilities.

***City of San José General Plan***

The City of San José General Plan sets forth a vision and a comprehensive road map to guide the City's continued growth through the year 2040 (City of San José, 2024). The various elements of the San José General Plan have been combined into a consistent and meaningful plan and organized in a manner designed to meet public needs. The following policies related to transportation have been provided for informational purposes only:

**Policy TR-2.5** Integrate the financing, design, and construction of pedestrian and bicycle facilities with street projects. Build pedestrian and bicycle improvements at the same time as improvements for vehicular circulation.

**Policy TR-2.8** Require new development where feasible to provide on-site facilities such as bicycle storage and showers, provide connections to existing and planned facilities, dedicate land to expand existing facilities or provide new facilities such as sidewalks and/or bicycle lanes/paths, or share in the cost of improvements.

**Policy TR-3.8** Collaborate with transit providers to site transit stops at safe, efficient, and convenient locations, and to develop and provide transit stop amenities such as pedestrian pathways approaching stops, benches and shelters, nighttime lighting, traveler information systems, and bike storage to facilitate access to and from transit stops.

**Policy TR-3.9** Ensure that all street improvements allow for easier and more efficient bus operations and improved passenger access and safety, while maintaining overall pedestrian and bicycle safety and convenience.

**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-5.4** Maintain and enhance the interconnected network of streets and short blocks that support all modes of travel, provide direct access, calm neighborhood traffic, reduce vehicle speeds, and enhance safety.

**Policy TR-7.1** Require large developments and employers to develop and maintain TDM programs with TDM services provided for their residents, full-time and subcontracted workers, and visitors to promote use of non-automobile modes and reduce the vehicle trips.

### *City of San José Downtown Transportation Plan*

With the growth in people living, working, and enjoying downtown San José comes additional demand for quality transportation. The San José Downtown Transportation Plan (DTP) envisions a resilient transportation system that meets the growing demand to connect people and places within and beyond the City center (City of San José, 2022). The DTP is a 20-year strategic plan for improving transportation to, from, and within downtown San José. The DTP provides a framework for new transportation projects, programs, and policies to be implemented by the year 2040. The DTP recommends a total of 17 strategies to achieve its goals, split into three categories: "Build Complete Street Networks", "Make Big Moves for Public Infrastructure", and "Unlock the Value of Mobility for All". Key strategies related to transportation include supporting vibrant street life and economy with pedestrian priority features, creating bike thoroughfares for all ages and skill levels, and implementing mobility hubs to improve access to and transfer of shared mobility services.

### *City of San José Better Bike Plan*

After changes implemented from the Better Bike Plan 2025 in 2020, the City of San José now has a bikeway network of 392 miles, 3,450 bike parking spaces, and a new bikeshare program with 83 stations and over 1,000 bikes. The Better Bike Plan 2025 will expand its multi-use path system and on-street bike network and install more on-street bikeways that appeal to more riders, such as separated bikeways and bike boulevards on low-traffic streets. The Better Bike Plan 2025 aims to achieve the following three goals: safety—increase safety for all people biking in San José and align with Vision Zero San José, mode shift—increase the number of trips made by bike in San José, and equity—apply the plan in a way that serves historically underserved communities (City of San José, 2020).

### *City of San José Vision Zero Campaign*

Improvements to the existing bike lanes on First Street and Monterey Road are proposed to begin in early 2024 as part of the City of San José's Vision Zero campaign, adopted in 2015. Bike lanes from the intersection of First Street and Keyes Street and continuing south along Monterey Road will be upgraded to protected bike lanes in order to support the Vision Zero campaign's goals to increase safety for bicyclists and motorists alike and prevent fatalities and serious injuries related to traffic incidents. The City of San José's Vision Zero campaign will implement an action plan which includes forming a Vision Zero Task Force, building analytical tools to understand why traffic incidents occur, increasing community outreach and engagement, implementing data-driven safety improvements, and focusing resources on corridors and districts with the highest amount of traffic safety incidents (City of San José, 2015).

### *City of San José Transportation Analysis Handbook*

The City of San José Transportation Analysis Handbook ("Handbook") provides the transportation analysis (TA) significance criteria, screening criteria, and thresholds of significance for environmental clearance for development projects, City transportation projects, and General Plan amendments. The Handbook is also a comprehensive guide to appropriate methodologies, procedures, and process for the preparation of a TA report within the context of CEQA and provides the appropriate procedures for meeting the City's Transportation Demand Management (TDM) ordinance requirements and determining the effects of projects on the local transportation system (City of San José, 2023b). The Handbook aligns with the City's TA Policy (Council Policy

5-1, 2018, amended 2022), Transportation Demand Management Ordinance, and Envision San José 2040 General Plan. City Council Policy 5-1 establishes the thresholds for transportation impact under CEQA removing Level of Service (LOS) and replacing it with VMT.

The Handbook provides screening criteria that determines the need for certain levels of analysis, based on specific factors for types of projects (e.g., small infill, local-serving retail, local-serving public utilities, office projects, or residential projects). However, transmission lines and regional utility infrastructure projects are not addressed or accounted for in the City's guidelines, and the screening criteria focus on operational transportation impacts following project construction. As stated in the Handbook, all projects should anticipate construction impacts with new developments. To the extent possible, operational analysis should include information about the project's construction schedule such as duration, hours of operations, any required grading, potential haul routes, traffic control plans, closure or relocation of bus stops, street closures, and construction entrances, etc., especially when adjacent to residents and businesses. Therefore, the City's guidelines related to preparation of a TA for operational impacts do not apply, and potential construction-related traffic impacts of the Proposed Project are analyzed in the discussion below.

## 5.17.3 IMPACT QUESTIONS

### 5.17.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to transportation come from the CEQA, Appendix G, Environmental Checklist. According to the CEQA Environmental Checklist, a project may cause a potentially significant impact if it would:

- Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities; or
- Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b); or
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- Result in inadequate emergency access.

### 5.17.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing Proponent's Environmental Assessments* (CPUC, 2019), the following additional CEQA Impact Questions are required for transportation. Would the project:

- Create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations?
- Interfere with walking or bicycling accessibility?
- Substantially delay public transit?

## 5.17.4 IMPACT ANALYSIS

### 5.17.4.1 Transportation Impact Analysis

**Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?**

**Less-Than-Significant Impact.** Though the CPUC has jurisdiction over the Proposed Project, this analysis considers the local land use plans and policies, per CPUC GO 131-D, Section III.C. Therefore, the applicable programs, plans, ordinances, and policies for the purposes of this analysis include the County of Santa Clara General Plan, City of San José General Plan, City of San José Downtown Transportation Plan, City of San José Better Bike Plan, City of San José Vision Zero campaign, and Santa Clara Countywide Bicycle Plan.

As described in **Section 5.17.2.1**, *Regulatory Setting*, Handbook provides guidelines for significance criteria, screening criteria, and thresholds of significance for environmental clearance for development projects. The City's screening criteria determines the level of analysis required for specific project types, based on several factors including the project size, proposed occupancy, and type (e.g., small infill, local-serving retail, local-serving public utilities, office projects, or residential projects). However, the Handbook and City guidelines do not address or account for transmission lines or regional public utility infrastructure, and the screening criteria presented for projects focus on operational transportation impacts following project construction. The Proposed Project does not meet the City's requirement to prepare a CEQA VMT analysis, a Transportation Demand Management Plan, or a Local Transportation Analysis for long-term operations due to the negligible trips and VMT required for O&M of the Proposed Project. Therefore, the City's guidelines related to preparation of a TA for operational impacts are not applicable to the Proposed Project. As stated in the Handbook, all projects should anticipate construction impacts with new developments. The analysis herein provides the proposed construction schedule, grading, traffic control plans, closure or relocation of bus stops, street closures, and construction entrances, and satisfies the City's requirements for analysis of transportation-related construction impacts.

As discussed in **Section 3.6.3,** *Construction Traffic*, all construction vehicles and equipment would enter the proposed Skyline terminal from Santa Teresa Street at an access point at the western terminus of Ryland Street and would enter the proposed Grove terminal from the access point off Monterey Road. Although some disruption to traffic flow may occur on adjacent public streets during construction ingress and egress, such events would be periodic and temporary. Similarly, disruption to traffic flow may occur during installation of the proposed Grove to Skyline 320 kV DC underground transmission line and the Metcalf to Grove 500 kV underground transmission line within Bassett Street, Little Market Street, Market Street, First Street, Monterey Road, and Coyote Ranch Road. However, encroachment permits and traffic control plans would be approved by the City of San José, the County of Santa Clara, or Caltrans as applicable. **Applicant Proposed Measure** (**APM) TRA-1,** *Traffic Control Plan* would also require the preparation of a Traffic Control Plan (TCP). The TCP would provide detour routes or otherwise maintain access to the affected recreational resources, including pedestrian and bicycle access along trail routes within public roads, through the implementation of signage, barriers, traffic control personnel, etc.

The peak vehicle trips would be during site development and below-grade construction activities, partially due to the number of crews and the hauling away or importation of fill. Total maximum

daily vehicle trips (i.e., roundtrips) during this time period would be approximately 500 trips per day, consisting of approximately 300 truck trips and 200 worker vehicle trips (see **Section 3.6,** *Construction Workforce, Equipment, Traffic, and Schedule*). Other periods of the Proposed Project duration would have lower average worker vehicle trips and would, therefore, have correspondingly lower impacts.

As discussed under the existing conditions, major regional vehicular access to the Proposed Project area is provided through I-280 and SR-87 to the proposed Skyline terminal and U.S. Route 101 to the proposed Grove terminal on Monterey Road. The AADT at the junctions of SR-87 and I-280 and U.S. Route 101 and SR-85, closest to the Proposed Project, is 90,000 vehicles and 126,000 vehicles, respectively (Caltrans, 2021a). The peak vehicle trips of the Proposed Project (500 per day) would represent less than 0.56 percent of the AADT for the SR-87 and I-280 junction and less than 0.4 percent of the AADT for the U.S. Route 101 and SR-85 junction. This would also assume that all Proposed Project vehicles would use the same major vehicular access, where the reality is Proposed Project vehicles would be travelling along a variety of routes depending on their purpose and destination (e.g., deliveries, spoils haul-off, tailboard meetings, traffic control, etc.) and would, therefore, be expected to account for a much smaller percentage of AADT at each of these junctions. As such, trips associated with daily construction personnel traffic are not anticipated to significantly disrupt traffic flow along public streets in the vicinity of Proposed Project components, including Monterey Road. Local labor would be used to the maximum extent practicable, and public transit is widely available. To reduce the potential number of daily worker-related vehicle trips to and from the site, LS Power would encourage carpooling where practicable.

The Proposed Project would result in a negligible number of additional vehicle trips during operation because the new facility would be remotely operated with no permanent workforce on-site. If equipment malfunctions, O&M personnel would be dispatched to the site to investigate the problem and take appropriate corrective action.

In addition, no alternative modes of transportation, such as rail, bus, or bicycle traffic or pedestrian circulation patterns, would be permanently altered or adversely affected by construction or O&M of the Proposed Project. Where required, a County or City encroachment permit would be acquired, and all applicable restrictions and requirements would be adhered to by the Proposed Project, which would ensure potential impacts to traffic congestion are further reduced. As the anticipated peak vehicle trips associated with construction of the Proposed Project would represent less than 0.56 percent of the AADT at the nearest roadway junctions (on a temporary basis), and compliance with local permits would occur as appropriate. Construction and O&M of the Proposed Project would not conflict with the County of Santa Clara General Plan, City of San José General Plan, City of San José Downtown Transportation Plan, City of San José Better Bike Plan, City of San José Vision Zero campaign, or Santa Clara Countywide Bicycle Plan. Proposed Project-generated traffic would be temporary, periodic, and managed with the implementation of TCPs (**APM TRA-1**), which would further reduce impacts to traffic congestion. Therefore, impacts to occur under this criterion would be less than significant.

**PG&E Facility Upgrades**

In order to integrate the proposed high-voltage direct current (HVDC) terminals and new Grove to Skyline 320 kV DC transmission line into the existing transmission system, PG&E would be required to perform upgrades at two existing substations: modifications to the Metcalf substation and expansion of the San Jose B substation (refer to **Section 3.3.5**, *Other Potentially Required*

*Facilities*). These upgrades would occur within and adjacent to the existing substation facilities. The PG&E facility upgrades would also include a new water line to the existing Metcalf substation, which would extend approximately 800 feet north-northeast from the Metcalf substation and connect to a 16-inch water main near the corner of Metcalf Road and Malech Road, which is served by the Great Oaks Water Company. Construction of these upgrades would occur concurrently with construction of the rest of the Proposed Project and for a limited duration. Construction of the proposed upgrades would result in worker vehicle trips to and from the facilities. If required, to comply with local or Caltrans regulations, a TCP would be implemented at the PG&E upgrade areas to reduce impacts to traffic congestion. Permanent changes to the existing substations would not result in impacts to the circulation system. Therefore, impacts to occur under this criterion would be less than significant.

**Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?**

**Less-Than-Significant Impact**. 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 (15064.3(b)(1)) and transportation projects (15064.3(b)(2)). The Proposed Project is not a traditional land use project that would generate VMT on a regular basis, and the County of Santa Clara has not developed a threshold of significance for VMT. Therefore, Criteria 1 is not applicable to the Proposed Project. The Proposed Project is also not a transportation project, and Criteria 2 would not be applicable. However, for the Proposed Project, a qualitative analysis of transportation impacts is provided (15064.3(b)(3)).

As discussed in **Section 5.17.1.3**, *Transit and Rail Services*, there is one bus stop and two light rail train stations located within 0.6 mile of the proposed Skyline terminal site. The closest train station to the proposed Skyline terminal site is the Japantown/Ayer Station located approximately 0.3 mile northeast of the site. The Santa Clara Station North is approximately 0.6 mile southeast of the proposed Skyline terminal site. The closest train station to the proposed Grove terminal site is the Santa Teresa Light Rail Station located approximately 3.2 miles northwest. As discussed in **Section 3.6**, the peak employment is anticipated to be approximately 250 workers per day, but, on average, the workforce on site would be less. Total vehicle roundtrips during this time would be approximately 500 trips per day, consisting of approximately 300 truck trips and 200 worker trips. Peak construction traffic periods would be temporary in nature and typically would be lower.

Local labor would be used to the maximum extent practicable. A 15-mile radius around the Proposed Project site includes the South Bay area, Newark, and Fremont to the north of the proposed Skyline terminal site, Gilroy and San Martin south of the proposed Grove terminal site, and other smaller towns and unincorporated areas in central Santa Clara County. Therefore, it is estimated that workers would commute to and from the Proposed Project site daily at an average one-way distance of approximately 15 miles. Workers would be encouraged to reduce their reliance on single occupancy vehicles by carpooling whenever possible. The peak VMT would occur during the duct bank excavation and installation portion of the Proposed Project (e.g., site development and below-grade construction activities) due to the number of crews and the hauling away or importation of fill, which would occur between approximately October 2026 and January 2027. Maximum VMT was determined by totaling the daily average VMT that would occur during construction phases that overlap with the October 2026 to January 2027 time period. The highest total daily average VMT would be 12,214 miles during the approximately six months where below-grade construction at the proposed HVDC terminal sites is expected to occur concurrently with

the proposed Grove to Skyline 320 kV DC transmission line and Metcalf to Grove 500 kV transmission line construction activities (see **Table 3-6**, *Estimated Average Daily Construction Traffic* and **Table 3-7***, Proposed Preliminary Construction Schedule*). VMT would include trips to import fill and haul away spoils, water truck trips for dust mitigation, worker trips, traffic control, equipment deliveries, etc. As the daily total average VMT in the City of San José is 6,139,300 miles, the Proposed Project VMT during peak construction would account for less than 0.2 percent (Caltrans, 2021b). Considering that workers and deliveries would not all be coming from the same direction, the effect would not be considered substantial.

Once construction is complete, the Proposed Project would be unattended on a typical daily basis. In general, monthly visual inspections would be performed within the proposed HVDC terminals to inspect equipment in accordance with manufacturer recommendations. Due to the diversity of equipment and the individual system components, a small, specialized team would execute the maintenance requirements. Inspection and maintenance would be performed by a small crew of one to two high-voltage technicians and one to two personnel provided by the equipment vendor with support provided by LS Power staff. The Proposed Project would be remotely operated with no permanent workforce on-site and, therefore, would generate a negligible amount of VMT.

Implementation of the Proposed Project would generate vehicle trips predominantly during construction activities and would not result in any long-term increase in VMT. The Proposed Project is likely to have a less-than-significant impact on regional VMT because construction would generate a relatively low number of temporary and sporadic daily trips. During operation, a negligible number of additional vehicle trips would occur because the new facility would be remotely operated with no permanent workforce on-site. Therefore, the Proposed Project would not result in transportation impacts related to increased VMT and would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). As such, less-than-significant impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Construction of these upgrades would occur concurrently with construction of the rest of the Proposed Project and for a limited duration. Workers and deliveries for the proposed upgrades would be minimal, resulting in low VMT during construction. In addition, no new permanent workforce would be added for O&M. Therefore, impacts to this criterion would be less than significant.

**Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

**Less-Than-Significant Impact.** As discussed in **Section 3.3.4.3,** the Proposed Project includes one new permanent access road at each proposed terminal, which would provide direct ingress and egress from existing public roadways. Additionally, the existing access road to the Grove terminal would be upgraded to support construction traffic from Monterey Road. Construction of the proposed Metcalf to Grove 500 kV transmission line would involve realignment of Coyote Ranch Road to straighten and minimize roadway bends on Santa Clara County Parks land (refer to **Figure 3-4**, *Project Route Map*). Realignment of Coyote Ranch Road would remove two 90-degree curves and, therefore, reduce sharp curves in the roadway that may pose vehicular hazards. The Proposed Project would not otherwise involve roadway improvements or widening

of existing access roads, and implementation of **APM TRA-3,** *Repair Infrastructure* would ensure that contractors repair any damage to public roadways caused by construction activities. In addition, the Proposed Project would not include uses incompatible with existing roads, such as farm equipment. Large construction trucks at local intersections would present temporary, limited-duration changes to driving conditions as the trucks travel back and forth to the construction site(s) with oversized materials and equipment. The new HVDC terminals would be remotely operated with no permanent workforce on-site during operation.

LS Power would prepare **APM TRA-1** that would include a TCP, which describes actions to be taken during construction activities to guide traffic (e.g., signs, workers directing traffic), safeguard construction workers, provide safe passage, and minimize traffic impacts. Therefore, implementation of the Proposed Project would not substantially increase traffic hazards and would not introduce any incompatible uses to the area. As such, less-than-significant impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation, which would not involve roadway improvements. Proposed Project construction and operation activities would not produce road hazards due to a geometrical design feature or involve incompatible uses such as farm equipment. Therefore, no impacts to this criterion would result.

**Would the project result in inadequate emergency access?**

**Less-Than-Significant Impact.** To facilitate the proposed underground transmission line construction, traffic control measures would be implemented pursuant to all applicable industry standards and applicable local jurisdictional agency review. For the installation of underground transmission lines, LS Power would coordinate with the appropriate emergency (fire and police) personnel prior to construction to ensure that construction activities and associated lane closures or detours would not substantially affect emergency response vehicles. The Proposed Project is not anticipated to impede ingress and egress of emergency vehicles or impact emergency response times during construction and operation. Any lane or road closures associated with construction of the Proposed Project would be temporary and would be coordinated with local jurisdictions and emergency service providers and subject to local agency approved traffic control plans. Because the Proposed Project's transmission line would be constructed in segments, only segments of roads are anticipated to be impacted by potential lane closures at a given time. Traffic detours may be necessary as part of construction, particularly in downtown San José within narrow streets. Flaggers or other traffic control measures would be utilized to guide traffic around active work areas in a safe manner. LS Power would develop **APM TRA-1** to ensure that access is not impeded during construction, including access to the proposed HVDC terminal construction sites and staging areas.

Operation of the Proposed Project facilities would not impede emergency vehicle access, as operation of the Proposed Project facilities would not require any lane or road closures. Temporary lane closures would be necessary for underground vault inspections that would occur periodically and during maintenance of the underground transmission line. Any lane or road closures associated with maintenance of the Proposed Project would be temporary and would be coordinated with local jurisdictions and emergency service providers.

Therefore, in the event of an emergency, vehicles and personnel inside the construction areas would be able to evacuate if needed. In addition, access routes for emergency vehicles within and near the Proposed Project area would be maintained. Monterey Road has a soft shoulder on both sides of the road that could be used by traffic yielding to emergency response vehicles. **APM TRA-1** and the TCP would further assist with safe access during an emergency. No roads would be closed or impeded during operation because the new facilities would be remotely operated with no permanent workforce on-site. Therefore, less-than-significant impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. No road closures would be needed to implement the proposed upgrades. If required, to comply with local or Caltrans regulations, a TCP would be implemented at the PG&E upgrade areas to ensure that access is not impeded during construction, including access to the PG&E facility and associated staging areas. Impacts to this criterion would be less than significant.

**Would the project create potentially hazardous conditions for people walking, bicycling, or driving or for public transit operations?**

**Less-Than-Significant Impact.** A majority of the bike lanes located within the City of San José and the County of Santa Clara are in-road bike lanes designed for bikers to safely share the road with vehicles, including trucks. There is a designated bike path located directly west of the proposed Skyline terminal facility along the Guadalupe River Trail. Ryland Parkway Trail also travels from Ryland Park located approximately 850 feet east of the proposed Skyline terminal site, west along Ryland Street, and north along Santa Teresa Street, where it connects to the Guadalupe River Trail. Ryland Parkway Trail is a sidewalk in the area north of the proposed Skyline terminal and not a marked bike path.

To facilitate the construction of the proposed underground Grove to Skyline 320 kV DC transmission line, temporary lane closures or road closures and detours would be necessary to allow adequate work area for construction. Flaggers or other traffic control measures would be utilized to guide traffic (including bicycle and pedestrian traffic) around active work areas in a safe manner. LS Power would develop **APM TRA-1** including a TCP to ensure the safety of motorists, bicyclists, and pedestrians within the Proposed Project area.

Directly east of the proposed Grove terminal facility, there is a shared use path available to bikers along the Coyote Creek Trail (Santa Clara VTA, 2018). The proposed transmission installation activities would occur along a portion of this path, as discussed further in **Section 5.16**, *Recreation*. LS Power would coordinate with the City of San José and County of Santa Clara for the preparation of the Proposed Project's Trail Management Plan (TMP), which would identify trail detour routes, as well as trail-specific traffic control and safety measures for pedestrians, trail users, and motorists in accordance with **APM REC-1,** *Trail Management Plan*. **APM REC-2,** *Trail Safety Crossing Measures* would require a crossing guard at this trail location to notify trail users when to pause use and resume use, providing safety to both the trail users and the construction crews. Alternatively, if use of a crossing guard is not practical during certain construction activities, the Coyote Creek Trail detour route identified in the TMP would be implemented. Signage and

flagging may be used to help direct trail users and provide safety for both trail users and construction crews.

As discussed in **Section 5.17.1.3**, the closest train station to the proposed Skyline terminal site is the Japantown/Ayer Station located approximately 0.3 mile northeast of the site. The closest train station to the proposed Grove terminal site is the Santa Teresa light rail station located approximately 3.2 miles northwest. Construction of the Proposed Project would not be expected to affect these train stations or create hazardous conditions for their patrons. The Caltrain light rail route runs parallel to the proposed Grove to Skyline 320 kV DC underground transmission line, starting at the intersection of Monterey Road and Fehren Road and continuing south along Monterey Road past the Proposed Project area to Gilroy (Caltrain, 2023). The Proposed Project would not impact the Caltrain route or create hazardous conditions for its patrons.

The closest bus stop to the proposed Skyline terminal site is located approximately 0.3 mile east on North First Street and Bassett Street. The closest bus stop to the proposed Grove terminal is located approximately 0.8 mile south on Santa Teresa Street and Bailey Avenue. There are bus stops located along the proposed Grove to Skyline 320 kV DC underground transmission line route on Monterey Road managed by the Santa Clara VTA. Temporary bus stop closures may be required as a result of traffic control activities along Monterey Road, and any bus stop closures would be coordinated with Santa Clara VTA in advance to ensure its patrons are not exposed to potentially hazardous conditions resulting from construction activities taking place in the vicinity of a bus stop (**APM TRA-2,** *Coordinate Bus Closures with Santa Clara VTA*).

As discussed above, traffic control procedures would be implemented as needed throughout the Proposed Project area. Any resulting lane restrictions would be temporary. Flaggers or other traffic control measures would be utilized to guide traffic around active work areas in a safe manner and in accordance with approved permits and TCPs, as applicable. In addition, implementation of **APM TRA-1** would require LS Power to implement standard safety practices and recommendations for safe traffic movement in a TCP, which would also further reduce the potential for hazardous traffic conditions during construction activities.

Parking of worker vehicles would generally occur within the staging areas anticipated to be located near the Proposed Project components, including the proposed Skyline terminal, Grove terminal, and transmission line facilities, though some worker vehicle parking may occur on-site during construction of the proposed Grove to Skyline 320 kV DC transmission line within existing roads. Any damage to public roads, including any damage from construction traffic and activities, would be restored to pre-project conditions following construction in accordance with **APM TRA-3**.

In addition, no alternative modes of transportation, such as rail, bus, or bicycle traffic or pedestrian circulation patterns, would be altered or adversely affected by long-term O&M activities. Therefore, given the traffic control measures that would be implemented, less-than-significant impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. No road closures would be needed to implement the proposed upgrades. The Guadalupe River Trail is an existing trail located west of PG&E's existing San Jose

B substation. Ryland Parkway Trail travels from Santa Teresa Street to Ryland Park and is located east of the existing San Jose B substation. If required, to comply with local or Caltrans regulations, a TCP would be implemented at the PG&E upgrade areas to ensure that access is not impeded during construction, including access to the PG&E facility and associated staging areas. Impacts to this criterion would be less than significant.

**Would the project interfere with walking or bicycling accessibility?**

**Less-Than-Significant Impact.** As discussed above, there is a designated bike path located directly west of the proposed Skyline terminal facility along the Guadalupe River Trail. Ryland Parkway Trail begins at Ryland Park, approximately 850 feet east of the proposed Skyline terminal site and continues west along Ryland Street and north along Santa Teresa Street, where it connects to the Guadalupe River Trail. Ryland Parkway Trail is a sidewalk in the area north of the proposed Skyline terminal and not a marked bike path. There is also an in-road bike lane along Monterey Road which runs parallel to the proposed Grove to Skyline 320 kV DC transmission line.

To facilitate the proposed transmission line construction, temporary bike lane closures or detours would be necessary to allow an adequate work area for construction. Flaggers or other traffic control measures would be utilized to guide traffic (including bicycle and pedestrian traffic) around active work areas. LS Power would implement **APM TRA-1**, including a TCP, to ensure the safety of motorists, bicyclists, and pedestrians within the Proposed Project area.

Construction of the proposed Metcalf to Grove 500 kV transmission line would take place within and adjacent to a portion of the Coyote Creek Trail, so temporary closures and detours are anticipated but would be avoided as practicable (see **Figure 5.16-1**, *Recreational Resources Map*). **APM REC-2** would require a crossing guard at the Coyote Creek Trail location to notify trail users when to pause use and resume use in order to provide safety to both the trail users and the construction crews. Alternatively, if use of a crossing guard is not practical during certain construction activities, the Coyote Creek Trail detour route identified in the TMP would be implemented. Signage and flagging may be used to help direct trail users and provide safety for both trail users and construction crews.

Although not anticipated, temporary closure or detours along other designated trails may be required during construction. LS Power would coordinate the City of San José, County of Santa Clara, and the National Park Service, as applicable, for the preparation of the Proposed Project's TMP, which would identify trail detour routes, as well as trail-specific traffic control and safety measures for pedestrians, trail users, and motorists in accordance with **APM REC-1**.

Most roadways around the proposed Skyline terminal site and much of the underground transmission corridor have sidewalks, including Coleman Avenue, Santa Teresa Street, Ryland Street, Bassett Street, Little Market Street, Market Street, First Street, and approximately 8.8 miles of Monterey Road. There is also a pedestrian walkway spanning over Monterey Road near the intersection of Blossom Hill Road that connects the sidewalk on the east side of Monterey Road to Endicott Boulevard and Cottle Road. There are no sidewalk closures anticipated for Proposed Project activities, but, if required, traffic control personnel would safely guide pedestrians around construction activities.

As discussed above, any effects on bike lanes or sidewalks resulting from Proposed Project construction activities would be temporary and sporadic in nature. Operation of the Proposed

Project would primarily be conducted remotely, and no changes to existing access would occur. Therefore, the Proposed Project would not interfere with walking or bicycling accessibility, and less-than-significant impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. No road closures would be needed to implement the proposed upgrades. The Guadalupe River Trail is an existing trail located west of PG&E's existing San Jose B substation. Ryland Parkway Trail travels from Santa Teresa Street to Ryland Park and is located east of the existing San Jose B substation. If required, to comply with local or Caltrans regulations, a TCP would be implemented at the PG&E upgrade areas to ensure that access is not impeded during construction, including access to the PG&E facility and associated staging areas. Impacts to this criterion would be less than significant.

**Would the project substantially delay public transit?**

**Less-Than-Significant Impact.** As discussed above, there are no public transit stations or stops within 1,000 feet of the proposed HVDC terminal sites. There is one light rail station, Japantown/Ayer Station, within 0.5 mile of the proposed Skyline terminal site; one bus stop and one light rail train station are located within 0.6 mile of the proposed Skyline terminal site. The closest train station to the proposed Grove terminal site is the Santa Teresa light rail station, located approximately 3.2 miles northwest. Construction of the Proposed Project would not be expected to affect these train stations or create any delays or service interruptions. The Caltrain light rail route runs parallel to the proposed underground Grove to Skyline 320 kV DC transmission line, starting at the intersection of Monterey Road and Fehren Road and continuing south along Monterey Road past the Proposed Project area to Gilroy. The Proposed Project would not impact the Caltrain route or be expected to create any delays or service interruptions.

There are several bus stops located along the proposed underground Grove to Skyline 320 kV DC transmission line route along Monterey Road managed by the Santa Clara VTA. Temporary bus stop closures may be required as a result of traffic control activities along Monterey Road; however, any bus stop closures would be coordinated with Santa Clara VTA in advance to ensure there are minimal service interruptions (**APM TRA-2**). Measures that may be implemented to give advanced notice of disruptions to service would include, but not be limited to, posting signage at bus stops with planned closures and posting notices for anticipated route detours and bus stop closures on the Santa Clara VTA website. Identification and implementation of specific measures would be implemented in coordination with Santa Clara VTA to maintain accessibility to transit. There are no permanent bus stop closures anticipated to be required as a result of the Proposed Project. As such, minimal delays to public transit are anticipated, and less-than-significant impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E facility upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. There are no public transit stations or stops adjacent to the existing substation facilities or the proposed water line alignment, and, therefore, the proposed facility upgrades would not delay public transit. No impacts would occur under this criterion.

### 5.17.5 CPUC DRAFT ENVIRONMENTAL MEASURES

There are no CPUC Draft Environmental Measures suggested for transportation.

### 5.17.6 APPLICANT PROPOSED MEASURES

The following transportation-specific APMs would be implemented for the Proposed Project. In addition, LS Power would implement AMPs REC-1 and REC-2, as discussed in Section 5.16.

**APM TRA-1: Traffic Control Plan**

LS Power shall prepare a TCP to describe measures to be taken to guide traffic (such as signs and workers directing traffic), safeguard construction workers, provide safe passage, and minimize traffic impacts. LS Power shall follow its standard safety practices, including installing appropriate barriers between work zones and transportation facilities, posting adequate signs, and using proper construction techniques. LS Power shall follow the recommendations regarding basic standards for the safe movement of traffic on streets in accordance with Section 21400 of the California Vehicle Code. As required for obtaining a local encroachment permit, LS Power 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. Emergency service providers shall be notified as required by the local permit of the timing, location, and duration of construction activities.

**APM TRA-2: Coordinate Bus Closures with Santa Clara VTA**

If required during construction, LS Power shall coordinate any bus stop closures with the Santa Clara VTA in advance to minimize disruptions to service. Where disruptions to service are anticipated, advanced notice shall be given to allow transit users on affected routes to identify and locate a temporary interim bus stop(s). Measures that may be implemented to give advanced notice of disruptions to service may include, but not necessarily be limited to, posting signage at bus stops with planned closures and posting notices for anticipated route detours and bus stop closures on the Santa Clara VTA website. Identification and implementation of specific measures shall be implemented in coordination with Santa Clara VTA.

**APM TRA-3: Repair Infrastructure**

LS Power shall oversee all aspects of construction and shall ensure that contractors repair any damage caused by construction activities. LS Power shall confer with local agencies as needed to ensure repairs are sufficient and consistent with preconstruction conditions.

### 5.17.7 PG&E BEST MANAGEMENT PRACTICES

No Best Management Practices related to transportation have been included for PG&E's scope of work.

## 5.19 UTILITIES AND SERVICE SYSTEMS

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? | | | X | |
| b. | Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years? | | | X | |
| c. | 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? | | | | X |
| 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? | | | X | |
| e. | Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | | | | X |
| f. | Increase the rate of corrosion of adjacent utility lines as a result of alternating current impacts? | | | X | |

This section describes the utilities and service systems within the vicinity of the Proposed Project, as well as the potential impacts that could result from construction and operation and maintenance (O&M) of the Proposed Project.

### 5.19.1 ENVIRONMENTAL SETTING

The City of San José General Plan (City of San José, 2024a), San José Water (SJW) 2020 Urban Water Management Plan (UWMP) (SJW, 2021), the County of Santa Clara General Plan (County of Santa Clara, 1994), Santa Clara Valley Water District (SCVWD or "Valley Water") UWMP (SCVWD, 2021), San José Municipal Water System ("Muni Water") UWMP, Great Oaks Water Company (GOWC) UWMP, California Code of Regulations (CCR), and local relevant websites were reviewed for regulatory information and background information related to water, gas and

electrical, sewer, stormwater, and telecommunication service providers for the Proposed Project area.

#### 5.19.1.1 Utility Providers

The following identifies the existing utilities providers and the associated infrastructure that serves the Proposed Project area.

**Water**

The Proposed Project is entirely within the Santa Clara Subbasin, exclusively managed by SCVWD. The SCVWD operates as the water supply management agency for the County of Santa Clara (County of Santa Clara, 1994; City of San José et al., 2013). Water use in the County of Santa Clara includes domestic, municipal, industrial, and agricultural use. Water supply for SCVWD comes from a variety of sources, including local groundwater, local surface water, and recycled and imported treated water. About half of the County's water supply comes from local sources and about half comes from imported water sources. Imported water includes State Water Project and Central Valley Project contract supplies and supplies delivered by the San Francisco Public Utilities Commission (SFPUC). SCVWD's 13 retailers in the County of Santa Clara are: California Water Service Company, City of Gilroy, GOWC, City of Milpitas, City of Morgan Hill, City of Mountain View, City of Palo Alto, Purissima Hills Water District, Muni Water, SJW, City of Santa Clara, Stanford University, and City of Sunnyvale (SCVWD, 2021).

The three potable water suppliers who serve the City of San José are Muni Water, SJW, and GOWC. Muni Water is owned and operated by the City of San José, while SJW and GOWC are privately owned (City of San José, 2023a). The Proposed Project spans across all three of these providers' service areas.

Muni Water has grown from a relatively small water utility to the fourth largest water retailer in the County of Santa Clara. Muni Water serves approximately 130,000 customers in the City of San José. Muni Water relies on water supply from surface water from SFPUC, local and imported surface water from SCVWD, groundwater from the Santa Clara Subbasin, and recycled water from the South Bay Water Recycling (SBWR) (City of San José, 2021). The SFPUC supply is predominately from the Sierra Nevada Mountain range, delivered through the Hetch Hetchy aqueducts, but also includes treated water from its local watersheds and facilities.

SJW is the largest private water retailer in the City of San José. SJW obtains its potable water supply through groundwater (43 percent), purchased or imported treated surface water (52 percent—from SCVWD), local surface water (three percent—collected and stored in reservoirs), and recycled water (two percent). SJW is under contract with SCVWD to purchase just over 50 percent of the needed water supply. On average, groundwater from the Santa Clara Subbasin accounts for 30 to 40 percent of SJW's total water supply. These aquifers are recharged naturally by rainfall and streams and artificially by recharge ponds operated by SCVWD. SJW also diverts surface water from the local Saratoga Creek and Los Gatos Creek watersheds to one of three SJW water treatment plants for treatment prior to entering the distribution system. Recycled water use has steadily grown over the years with increased demand and construction of new recycled water pipelines (SJW, 2021).

GOWC has been providing water utility service to parts of the City of San José since the early 1960s and serves approximately 20,000 customers. GOWC only sources water from GOWC-

owned groundwater wells. GOWC does not purchase treated water or utilize surface water, stormwater, wastewater, or recycled water. GOWC has stated that they will supply recycled water when supply and infrastructure are available to them. At least one groundwater well is expected to be added to GOWC in the 2025-2026 timeframe, which would increase water supply (GOWC, 2021).

**Gas and Electrical**

Pacific Gas and Electric Company (PG&E) provides electric and natural gas to unincorporated areas of the County of Santa Clara and the City of San José. The existing PG&E San Jose B and Metcalf substations are an integral part of the Greater Bay Area transmission system by facilitating the transfer of energy in the South Bay area.

There are numerous local electrical distribution lines in the area that could serve the Proposed Project during construction and during O&M. The Proposed Project would have connections to an existing PG&E distribution line north of the proposed Skyline terminal site and a distribution line that runs west of the proposed Grove terminal site. In addition, the Proposed Project would have connections to existing overhead or underground distribution lines near the staging areas. Distribution lines would be installed overhead on wood poles or underground to provide power to the proposed staging areas and both high-voltage direct current (HVDC) terminal sites. The use of temporary generators for construction at the proposed HVDC terminals and staging areas would be a contingency if distribution power is not available in a timely manner prior to construction. Temporary mobile generators would be required during construction of the proposed underground transmission lines.

PG&E operates transmission and distribution-level natural gas lines in the Proposed Project area. The Proposed Project would not require a natural gas distribution connection.

**Sewer**

The Proposed Project Area is served by the San José–Santa Clara Regional Wastewater Facility (RWF). The sanitary sewer system includes the piping and substations that transport the wastewater from households and businesses to the RWF (City of San José, 2023b). The facility services 1.4 million residents and over 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, 2023a). During construction of the Proposed Project, portable toilets would be used, and all sanitary waste would be disposed of off-site. Once constructed, the Proposed Project would be remotely operated with no permanent workforce on-site and would not generate wastewater or connect to a wastewater collection system.

**Stormwater**

The City of San José has a storm sewer system, also known as a Municipal Separate Storm Sewer System (MS4), which directs runoff into inlets (storm drains) and gutters on local streets, as well as pipes and outfalls, to a local water body, such as a creek or river (City of San José, 2023b). The existing PG&E San Jose B and Metcalf substations have on-site stormwater detention systems that capture the majority of runoff at those sites.

Stormwater Best Management Practices (BMPs) would be outlined in the Proposed Project's Stormwater Pollution Prevention Plan (SWPPP) and BMP Manual and implemented during construction (discussed in more detail in **Section 5.10**, *Hydrology and Water Quality)*. The SWPPP BMPs would remain in place and would be maintained until construction is complete and the work sites are stabilized. As described in **Section 3.5.9.3**, *Runoff*, operation of the Proposed Project would include a stormwater management system consisting of a stormwater drainage and conveyance system and a stormwater detention system at each proposed terminal location. The size of the detention system would vary for each proposed terminal site, depending on site-specific conditions, and may include a detention basin, underground detention vaults, or a combination thereof.

**Telecommunications**

Communications within the vicinity of the Proposed Project currently include, but are not limited to, telephone service provided by T-Mobile, AT&T, Spectrum, Datacom Telecom, Xfinity, Shore Tel Incorporated, General Telecom Incorporated, Pinnacle Telecom, San Jose Networks, and South Bay Telecom; cable television service provided by Direct TV, AT&T, Xfinity, and Dish TV; and several internet providers including AT&T, Comcast, T-Mobile, Spectrum, Xfinity, EarthLink, HughesNet, and Viasat (CableTV, 2023; The Prime Buyer's Report, 2023). As discussed in **Section 3.0**, *Proposed Project Description*, it is anticipated that the Proposed Project would include new telecommunications infrastructure that would connect the new HVDC terminals to each other, connect the HVDC terminals to the existing PG&E substations, and connect each HVDC terminal to local existing third-party internet providers. Each telecommunication path would consist of fiber optic cables which would be installed underground and collocated with the new transmission lines where practical.

### 5.19.1.2 Utility Lines

As discussed in **Section 3.5.4.2**, *Utilities,* there is radial distribution electric line currently serving the proposed Grove terminal site. The existing radial electric distribution line consists of approximately four wooden poles that would be removed as part of the Proposed Project and transported to a PG&E facility for reuse or disposal. The extension of distribution level power to the proposed Skyline and Grove terminals would be provided through a new tap into an existing PG&E distribution line that is located on Ryland Street, north of the existing San Jose B substation, and a distribution line located west of the proposed Grove terminal site. Based on preliminary design, LS Power Grid California, LLC ("LS Power") has identified thousands of existing utility lines located within the Proposed Project area. Prior to initiating construction, LS Power would contact Underground Service Alert (USA), also known as USA North 811, to identify underground utilities in the immediate area. In addition, prior to excavating, LS Power would conduct exploratory excavations (i.e., potholing) in order to verify the locations of existing utility facilities in the right-of-way (ROW).

### 5.19.1.3 Approved Utility Projects

esVolta, LP is currently constructing the Hummingbird Energy Storage Project, a 2.5-mile long 115 kilovolt (kV) underground transmission line within Monterey Road, connecting the existing PG&E Metcalf substation to a new energy storage site. This work is anticipated to be complete prior to construction of the Proposed Project. No other major utilities or service systems projects (that are not yet constructed) have been approved for construction within the ROW of the Proposed Project. However, the Proposed Project's transmission lines are located in existing

roads and would be collocated with existing utilities, such as sewer, stormwater, gas, water, electric, and telecommunications. As such, utility work is anticipated to occur within the Proposed Project area periodically during construction.

#### 5.19.1.4 Water Supplies

Water would be required for construction activities, such as for dust suppression and compaction requirements, and would be trucked into the Proposed Project sites from available nearby off-site locations provided by SCVWD, Muni Water, SJW, or GOWC (see **Section 5.19.1.1**, *Utility Providers* for a list of the local sources). Specific water sources for trucked water would be determined prior to construction in coordination with the water suppliers based on availability and proximity of supplies. PG&E would construct a new water line that would connect the Metcalf substation to a 16-inch water main to the Great Oaks Water District's water system, to the Metcalf substation from the closest connection point. Additionally, there is an existing water supply groundwater well on the proposed Grove terminal site that is proposed to be used for water supply during construction. As described in **Section 3.5.10**, *Water Use and Dewatering*, the proposed Skyline and Grove terminal sites would not require a distribution water connection for O&M activities, as the facilities would be remotely operated with no permanent workforce on-site. LS Power personnel would be responsible for providing their own drinking water during O&M activities.

It is estimated that a total of up to approximately 16 million gallons of water would be used for construction purposes during the approximately 24-month construction process, the majority of which would be used during the site development and below-grade construction phases at the proposed terminal sites.

SCVWD's 2020 UWMP currently shows supply surpluses in all the supply reliability scenarios. SCVWD'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 Semitropic Groundwater Bank and draw on these reserve supplies during dry years to help meet demands (SCVWD, 2021). Current Countywide average annual water demand and use is estimated at approximately 310,000 acre-feet (AF). In 2020, SCVWD's total water demand and use of water supplies were approximately 306,000 AF (SCVWD, 2021). For estimated water use in the year 2025, SCVWD 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, projected water demand in 2045 is estimated at 345,000 AF, and projected water supply in 2045 is 650,000 AF, for a total of 305,000 AF of excess supplies. SCVWD'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 SCVWD anticipates to meet and exceed water demand through 2045. Water shortage contingency planning is also provided in the SCVWD UWMP to meet demand during years of drought and low water supplies.

According to Muni Water's water supply reliability assessment, they will be able to meet water demands in their 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 Water Shortage Contingency Plan (WSCP). Based on total potable water supplies, Muni Water may experience supply shortages between approximately five and ten percent during a drought (City of San José, 2021). According to the City of San José Climate Smart, San José estimates that current residential water demand in the City is approximately 73.71 gallons per person per day (City of San José, 2024b). Therefore, to

serve its 130,000 customers, current Muni Water demand is approximately 9,582,300 gallons per day, or 10,733 AF per year.

According to the SJW UWMP, there would be adequate supplies to meet system demand for the years 2025 to 2045 over a multiple dry year supply and demand comparison (SJW, 2021). However, multi-year droughts present the greatest challenge to SJW's and SCVWD's water supply reliability. To account for potential water shortages under severe drought conditions, SJW has adopted a WSCP, which requires a staged water reduction process (SJW, 2021). Total water demand in 2020 was 39,592 million gallons or 121,504 AF. The projected total water demand and supply in 2045 is 139,956 AF, and no excess supplies are anticipated in a normal water year (SJW, 2021).

GOWC's 2020 UWMP provides an assessment of water supplies under various scenarios, including an average water year, a single dry year, and multiple dry years. The assessment concluded that GOWC has sufficient water supplies to meet demand under each scenario presented. GOWC's risk assessment is based on current information, including SCVWD's assurances that it will manage groundwater resources appropriately. In the event SCVWD's actions with respect to groundwater management and recharge, during the time period Anderson Reservoir is not in service, prove inadequate, GOWC will implement its WSCP stage-by-stage, if necessary, to retain water service/water supply reliability (GOWC, 2021). Total water demand in 2020 was 3,396 million gallons or 10,422 AF. During a single dry year scenario in 2025, the GOWC UWMP concludes that GOWC will have 9,471 million gallons (29,065 AF) of supply to meet the 2025 projected demand of 3,363 million gallons (10,320 AF), with an excess of 6,108 million gallons (18,744 AF). In the long-term for 2030, projected water demand is 3,174 million gallons ( 9,740 AF), and projected water supplies are 12,680 million gallons (38,913 AF), for a total of 9,506 million gallons (29,173 AF) in excess supplies. The 2020 UWMP concludes that GOWC has sufficient water supplies to meet demand under all of the various water supply scenarios, including the single dry year and multiple dry years scenarios.

Additionally, recycled, reclaimed water, or groundwater would be used in accordance with applicable regulations and acquired permits to meet the Proposed Project's construction needs. There is an existing water supply groundwater well on the proposed Grove terminal site that is proposed to be used for water supplies during construction, as well as during O&M for irrigation of the approximately 150 orchard trees remaining in place following construction. The groundwater well draws from the Santa Clara subbasin and provides sufficient supplies for agricultural irrigation of the approximately 13.6-acre site. According to the current property owner of the proposed Grove terminal site, existing use of the groundwater well is approximately 10 AF (3,258,514 gallons) per year for irrigation. There would be an overall reduced groundwater demand at the site during construction and O&M of the Proposed Project in comparison to the existing conditions. Groundwater use during O&M would be required to remain within existing supply volumes to avoid overdraft and support sustainable management of the groundwater basin.

#### 5.19.1.5 Landfills and Recycling

Republic Services provides solid waste collection services to all businesses in the City of San José; therefore, Republic Services would serve the Proposed Project sites. The landfills that serve the City of San José include Guadalupe Landfill, Kirby Canyon Landfill, Newby Island Sanitary Landfill, and Ox Mountain Landfill. Through an agreement with International Disposal Corporation of California (IDC), municipal solid waste generated in the City of San José that is not diverted

through recycling or composting must go to Newby Island Sanitary Landfill (City of San José, 2009). However, City-certified construction and demolition (C&D) recycling facilities can be used during the Proposed Project construction phase. Solid wastes generated during construction would primarily be non-hazardous wastes, including wood, metal, paper, and plastic packaging. LS Power would implement recycling as practicable during its construction and O&M activities by transporting the material to an approved recycling facility.

Construction waste from the Proposed Project would be disposed of at the Kirby Canyon Landfill, the Newby Island Sanitary Landfill, the Guadalupe Landfill, the Ox Mountain Landfill, or another approved facility. The total capacity of the Kirby Canyon Landfill is 36.4 million cubic yards (CY), with a remaining capacity of 16.1 million CY. The types of waste permitted at the Kirby Canyon Landfill include green materials, tires, construction, industrial, and mixed municipal waste. The Kirby Canyon Landfill has a cease operation date of December 31, 2059 (California Department of Resources Recycling and Recovery ["CalRecycle"], 2023a).

The Newby Island Sanitary Landfill facility has a permitted capacity of 57.5 million CY and is permitted to accept a maximum of 4,000 tons of solid waste per day. With a remaining disposal capacity of about 16.4 million CY, the Newby Island Sanitary Landfill is expected to cease operation on January 1, 2041 (CalRecycle, 2023c).

The Guadalupe Landfill has a total capacity of 28.6 million CY, with a remaining capacity of 11 million CY. The types of waste permitted at the Guadalupe Landfill include green materials, industrial, construction, demolition, and mixed municipal waste; it has a cease operation date of January 1, 2048 (CalRecycle, 2023c).

The Ox Mountain Landfill has a permitted capacity of 60.5 million CY and is permitted to accept a maximum of 3,598 tons of solid waste per day. With a remaining disposal capacity of about 22.1 million CY, the Ox Mountain Landfill is expected to cease operation on January 1, 2034 (CalRecycle, 2023d).

The Kirby Canyon Landfill, Newby Island Sanitary Landfill, Guadalupe Landfill, and Ox Mountain Landfill are all treated-wood waste disposal sites in the County of Santa Clara. Construction debris materials from the Proposed Project would typically be processed at City-certified C&D recycling facilities, such as the Zanker Material Processing Facility, and materials that are not able to be processed would be disposed of at the nearby Newby Island Sanitary Landfill or another approved facility.

### 5.19.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 5.19.2.1 Utilities and Service Systems Regulatory Setting

**Federal**

There are no federal regulations for utilities and service systems that apply to the Proposed Project. Federal regulations pertaining to water supply are outlined in **Section 5.10**.

**State**

***California Health and Safety Code § 25150.7(d)(1)***

The Integrated Waste Management Act of 1989 (Public Resources Code [PRC] 40050 et seq.), administered by CalRecycle, requires all local and county governments to adopt a Source Reduction and Recycling Element to identify means of reducing the amount of solid waste sent to landfills. This law set reduction targets at 25 percent by the year 1995 and 50 percent by the year 2000. Senate Bill 1016 builds on Assembly Bill (AB) 939 by implementing simplified measures of performance toward meeting solid waste reduction goals (State of California, 2012). The California Integrated Waste Management Board was established in 1989 under AB 939 and replaced in 2010 by CalRecycle. CalRecycle is under the umbrella of the California Environmental Protection Agency (CalEPA) and is responsible for the implementation of AB 939.

***California Government Code***

Section 4216 of the California Government Code protects underground structures during excavation. Under this law, excavators are required to contact a regional notification center at least two days prior to excavation of any subsurface installations. In the Proposed Project area, USA North 811 is the regional notification center. USA North 811 notifies utilities providers with buried lines within 1,000 feet of the excavation, and those providers are required to mark the specific location of their facilities prior to excavation.

The code also requires excavators to probe and expose existing utilities, in accordance with state law, before using power equipment. CCR Title 20 contains statutes relating to power plant siting and certification.

***California Code of Regulations (Title 27)***

Title 27 of the CCR defines regulations for the treatment, storage, processing, and disposal of solid waste. The State Water Resources Control Board (SWRCB) maintains and regulates compliance with Title 27 of the CCR. The compliance of the Proposed Project would be enforced by the San Franciso Bay (Region 2) Regional Water Quality Control Board (RWQCB).

***California Urban Water Management Planning Act***

Section 10610 of the State Water Code, known as the California Urban Water Management Planning Act, states that each urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 AF of water annually, must prepare a UWMP and update it every five years to ensure that the reliability of its water service is sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The act describes the contents of the UWMPs and requires each agency's UWMP to assess the reliability of the agency's water resources over a 20-year planning horizon.

Additional requirements have been passed by the California Legislature for 2020 UWMPs, updating the 2015 UWMP guidance. Significant changes include the following: five consecutive dry-year water reliability assessment, drought risk assessment, seismic risk, energy use information, water loss reporting for five years, water shortage contingency plan, groundwater supplies coordination, and lay description.

### *California Green Building Standards*

In January 2010, the State of California adopted the California Green Building Standards Code ("CALGreen"), establishing mandatory green building standards for all buildings in California. CALGreen 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:

- Reducing indoor water use by 20 percent;
- Reducing wastewater by 20 percent;
- Recycling and/or salvaging 65 percent of nonhazardous construction and demolition ("C&D") debris, or meeting the local construction and demolition waste management ordinance, whichever is more stringent (see San José-specific CALGreen building code requirements in the local regulatory framework section below); and
- Providing readily accessible areas for recycling by occupants.

Pursuant to Section C3-30 of the County of Santa Clara Municipal Code, the County has adopted the 2022 California Green Building Standards Code (County of Santa Clara, 2023). The City of San José requires 75 percent diversion of nonhazardous C&D debris for projects that qualify under CALGreen, which is more stringent than the state requirement of 65 percent (San José Municipal Code Section 9.10.2480).

## Local

The California Public Utilities Commission (CPUC) has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC General Order (GO) 131-D, Section XIV.B, "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 the City of San José and the County of Santa Clara do not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section includes a summary of local utilities and service systems-related policies, plans, or programs for informational purposes. Although LS Power is not subject to local discretionary permitting, ministerial permits would be secured as appropriate.

### *County of Santa Clara General Plan*

The following relevant utility policies from the County of Santa Clara General Plan (County of Santa Clara, 1994) were reviewed, and a summary is provided below for informational purposes.

**Policy C-RC 71** Potential applications for waste transformation and energy generation technologies should be explored and encouraged.

**Policy R-GD 7** In rural unincorporated areas, if there is an unpreventable areawide problem which can only be solved by extension of services by special district, assessment district, or private utility, then this form of service may be approved, with the following restrictions:

a. the amount of increased service capacity will not exceed the identified need and the planned level of development; and
b. the level of service capacity is consistent with that of other services provided or planned for the area.

**Policy SC 14.9** The cities should use their policies for urban service area extensions and utility extensions to guide urban growth away from long-term agricultural areas.

***City of San José General Plan***

The following policies from the City of San José General Plan (City of San José, 2024a) are relevant to utilities and service systems and are provided for informational purposes.

**Policy IN-1.2** Consistent with fiscal sustainability goals, provide and maintain adequate water, wastewater, and stormwater services to areas in the City that do not currently receive these City services upon funding and construction of the infrastructure necessary to provide them.

**Policy IN-1.5** Require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth without adversely impacting current service levels.

**Policy IN-1.10** 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, 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.

**Policy CD-1.27** When approving new construction, require the undergrounding of distribution utility lines serving the development. Encourage programs for undergrounding existing overhead distribution lines. Overhead lines providing electrical power to light rail transit vehicles and high-tension electrical transmission lines are exempt from this policy.

***Santa Clara 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 acre-feet of water annually prepare and adopt, in accordance with prescribed requirements, an urban water management plan." The SCVWD UWMP documents information on water supply, water use, recycled water, water conservation programs, water shortage contingency planning, and water supply reliability in the County of Santa Clara under different scenarios. Every five years, urban water suppliers in California are required by state law to prepare a UWMP. 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 its 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.

SCVWD is a special district that provides water resources management for all of the County of Santa Clara. SCVWD'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 (SCVWD, 2021).

***City of San José 2020 Urban Water Management Plan***

This document presents the City of San José's UWMP for Muni Water, the retail water supplier operated by the City of San José. The City of San José 2020 UWMP provides information on water management specific to Muni Water's service areas: North San José/Alviso, Evergreen, Edenvale, and Coyote Valley. 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's conservation efforts. The UWMP documents the City of San

José's planning efforts involved in ensuring a reliable, high-quality supply of water to the public (City of San José, 2021).

***San José Water 2020 Urban Water Management Plan***

Pursuant to the State Water Code, water suppliers providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 AF (approximately 980 million gallons) of water annually must prepare and adopt a UWMP and update it every five years. As part of a UWMP, water agencies are required to evaluate and describe their water resource supplies and projected needs over a 20-year planning horizon, water conservation, water service reliability, water recycling, opportunities for water transfers, and contingency plans for drought events. Additional requirements have been passed by the California legislature for 2020 UWMPs, updating the 2015 UWMP guidance. Significant changes include the following: five consecutive dry-year water reliability assessment, drought risk assessment, seismic risk, energy use information, water loss reporting for five years, water shortage contingency plan, groundwater supplies coordination, and lay description. The City of San José adopted its most recent UWMP in June 2021. Water service to the downtown area is provided by SJW, which gets its water from a variety of sources, including groundwater (approximately 43 percent), purchased or imported surface water (approximately 52 percent), recycled water (approximately two percent), and local mountain surface water (approximately three percent) (SJW, 2021).

***Great Oaks Water Company 2020 Urban Water Management Plan***

GOWC's UWMP provides a reliable water management action plan to address changing water supply and demand conditions. The vast majority of GOWC's service area is within the City of San José, and the entire service area is located within the County of Santa Clara. The 2020 UWMP was adopted by the GOWC Board of Directors in June 2021. The UWMP is a foundational planning document and includes descriptions of past and projected water demands, water supplies, and water system reliability during a series of different water supply scenarios over a 20-year planning period. The UWMP also describes GOWC's actions that promote water conservation and includes a WSCP to address potential water supply shortages due to droughts or other impacts to the water supply (GOWC, 2021).

## 5.19.3 IMPACT QUESTIONS

### 5.19.3.1 CEQA Impact Questions

The significance criteria for assessing the impacts to utilities and service systems comes from the California Environmental Quality Act (CEQA), Appendix G Environmental Checklist. According to the CEQA Environmental Checklist, a project may cause a potentially significant impact if it would:

- Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects; or

- Not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years; or

- 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; or

- Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or

- Not comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

#### 5.19.3.2 Additional CEQA Impact Question

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing and Proponent's Environmental Assessments* (CPUC, 2019), the following additional CEQA Impact Question is required for utilities and service systems. Would the project:

- Increase the rate of corrosion of adjacent utility lines as a result of alternating current impacts?

### 5.19.4 IMPACT ANALYSIS

#### 5.19.4.1 Utilities and Service Systems Impact Analysis

**Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**

**Less-Than-Significant Impact.** Proposed Project construction would require the temporary use of water and wastewater facilities by construction workers. Water used for construction activities, such as for dust suppression and compaction requirements, would predominately be trucked in from a nearby off-site location provided by SCVWD, Muni Water, SJW, or GOWC (see **Section 5.19.1.1** for a list of the local sources). Specific water sources for trucked water would be determined prior to construction in coordination with the water suppliers based on availability and proximity of supplies. Additionally, there is an existing water supply groundwater well on the proposed Grove terminal site that is proposed to be used for water supply during construction. It is estimated that approximately 16 million gallons of water would be used for construction purposes during the approximately 24-month construction process, as described in **Section 3.5.10**. As described in **Section 5.19.1.1**, SCVWD, SJW, and GOWC would have sufficient excess supplies to serve the Proposed Project and are among the potential sources of water during construction. Water used during construction activities would be temporary and would originate from local sources that have the existing capacity to service the needs of the Proposed Project. Once constructed, the Proposed Project would be remotely operated with no permanent workforce on-site and, therefore, would not require a source of potable water.

During construction, wastewater service would be provided by portable toilets, and solid waste would be disposed of at appropriately licensed off-site facilities, such as the San José–Santa Clara RWF. The construction workforce would be relatively small (maximum of approximately 250 workers at peak construction), and only minimal wastewater generation would be anticipated.

Once constructed, the Proposed Project would be remotely operated with no permanent workforce on-site; therefore, the operational phase of the Proposed Project would not require wastewater treatment facilities.

During construction, on-site stormwater would be managed consistent with the Proposed Project-specific SWPPP and Spill Prevention Control and Countermeasure Plan (SPCCP) (see **Section 3.0** and **Section 5.10** for more information*)*. The Proposed Project would include a stormwater detention system at each terminal site which would be designed to capture runoff from a 100-year storm, 24-hour rainfall event. The size of the detention system would vary for each proposed terminal site, depending on site-specific conditions, and may include a detention basin, underground detention vaults, or a combination thereof. During O&M activities, runoff from each of the proposed terminal sites would be conveyed to the stormwater detention system, where it would then filter through the underlying soils or evaporate. Overflow from the detention system would be returned to sheet flow via a level spreader to the adjacent land surface during storms that exceed the system's design capacity. The level spreading approach would control erosion and prevent scouring at discharge locations. No off-site stormwater system improvements are proposed. The stormwater detention basin at the proposed Skyline terminal site would be located on an existing previously disturbed lot and would improve existing stormwater drainage patterns on-site and divert runoff from the Guadalupe River. The stormwater detention basin at the proposed Grove terminal site would be located on existing agricultural land. Although construction of the proposed Grove terminal would convert some pervious land to impervious materials, the proposed stormwater detention basin would capture runoff and allow water to re-infiltrate into the soil. There are no anticipated significant environmental impacts related to the construction or relocation of stormwater drainage facilities.

For electric power during construction, LS Power would coordinate the appropriate distribution connection locations with PG&E, and the Proposed Project would require the construction of new distribution lines at both of the proposed HVDC terminals to connect to nearby existing PG&E distribution lines (refer to **Figure 3-4**, *Project Route Map* and **Figure 3-7**, *HVDC Terminal General Arrangements*). The existing radial electric distribution line at the proposed Grove terminal site would be removed along with approximately four wooden poles. Reconfiguration of existing distribution connections at each proposed terminal site would take place as described in **Section 3.0**. In addition, the Proposed Project would have connections to existing overhead or underground distribution lines near the staging areas. The extension of distribution power would result in the installation of wood poles or underground conduits near the proposed HVDC terminals and construction staging areas. Connections required to support construction activities would be temporary and would be removed following the completion of construction. The transmission lines being installed as part of the Proposed Project are primarily underground, with the exception of the new Skyline to San Jose B 115 kV station tie line that would tie the new Skyline terminal to the existing PG&E San Jose B substation via a new, short (approximately 100-foot) station tie line (see **Figure 3-7**).

The use of temporary generators for construction at the proposed HVDC terminals and staging areas would be a contingency if distribution power is not available in a timely manner prior to construction commencing. Temporary mobile generators would be required during construction of the proposed underground transmission lines. When not in use, generators would be stored within the proposed staging areas or within the proposed Skyline and Grove terminal sites, where practical.

The Proposed Project would not require new natural gas facilities. As discussed in **Section 3.0**, it is anticipated that the Proposed Project would include new telecommunications infrastructure that would connect the new HVDC terminals to each other, connect the HVDC terminals to the existing PG&E substations, and connect each HVDC terminal to local existing third-party internet providers. Each telecommunication path would consist of fiber optic cables. The telecommunication lines would be installed underground, collocated with the new transmission lines, and designed to avoid conflicts with existing utilities, where feasible.

Prior to initiating construction, LS Power would contact USA North 811 to identify underground utilities in the immediate area. In addition, prior to excavating, LS Power would conduct exploratory excavations (i.e., potholing) in order to verify the locations of existing utility facilities in the ROW. In the event underground utilities are identified, LS Power would work with the owner of those utilities to determine if design changes can be made or if utility relocation is necessary.

The proposed Metcalf to Grove 500 kV transmission line and the Grove to Skyline 320 kV direct current (DC) transmission line would be constructed underground, almost exclusively within existing roads. The proposed transmission lines would be collocated with existing utilities and designed to avoid conflicts with existing utilities, where feasible. However, excavation and installation of the concrete-encased duct bank and associated splice vaults would require the relocation of certain third-party utilities in areas of conflict. Utilities that would require relocation may include sanitary sewer, stormwater, gas, water, electric, and telecommunications. It is anticipated that all utility relocations would take place within the proposed limits of construction.

The Proposed Project would not require or result in the construction of new or expanded water, wastewater treatment, stormwater drainage, or natural gas facilities resulting in significant impacts to the environment. Existing utilities located within the vicinity of the Proposed Project terminal sites and/or transmission lines may be impacted during construction. However, implementation of **Applicant Proposed Measure (APM) UTIL-1**, *Coordination with Utilities* would require LS Power to work with all utility companies with utilities located on or crossing the Proposed Project sites and transmission alignments to locate and mark existing underground utilities. Any conflicts between the Proposed Project features and existing utilities would be mitigated by either redesign of the Proposed Project or relocation of the existing utility, as coordinated with each utility owner/operator, as outlined in **APM UTIL-1**. As stated above, it is anticipated that utility relocations would take place within the proposed limits of construction. Therefore, with implementation of **APM UTIL-1**, impacts under this criterion would be less than significant.

**PG&E Facility Upgrades**

In order to integrate the proposed HVDC terminals and the new Grove to Skyline 320 kV DC transmission line into the existing transmission system, PG&E would be required to perform upgrades at two existing substations: modifications to the Metcalf substation and expansion of the San Jose B substation (refer to **Section 3.3.5**, *Other Potentially Required Facilities*). These upgrades would occur within and adjacent to the existing substation facilities. Construction of these upgrades would occur concurrently with construction of the rest of the Proposed Project and for a limited duration. These upgrades to the existing substation would result in the improvement of existing electric facilities at these locations. This work would not require the relocation or construction of new or expanded wastewater treatment or stormwater drainage, natural gas, or telecommunications facilities.

The modification of the Metcalf substation would conflict with (and require removal of) the well water system and related components and fire water system (including a 47,000-gallon tank and related system components) serving the existing substation and the adjacent PG&E General Contractor Yard. The system would be replaced by a new connection to GOWC's water system, which would involve trenching and related construction activities to extend a 10-inch water line to the Metcalf substation from the closest connection point (a 16-inch water main near the corner of Metcalf Road and Malech Road). The water line would include approximately 1,400 feet of trenching and a 240-foot horizontal directional drill (HDD) under U.S. Route 101. The PG&E water source upgrades are shown in **Figure 3-4**. The trench would be backfilled to the surface of the road or existing grade where it is located outside of the road. Construction of the water line would occur concurrently with the Metcalf substation modifications for a limited duration of time. The proposed new water line would fulfill existing water demand at the PG&E site, and there would be no change in water demand following Proposed Project construction. Therefore, construction of the water line would not result in significant environmental impacts. As the proposed facility upgrades would improve electric infrastructure in an area with existing transmission infrastructure and other industrial uses, impacts would be less than significant.

**Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?**

**Less-Than-Significant Impact.** As described in **Section 5.19.1.4**, *Water Supplies*, construction crews would be responsible for providing their own drinking water during construction of the Proposed Project. During construction, water would be used for dust control, compaction requirements, and worker needs. As described above, it is estimated that a total of approximately 16 million gallons of water would be used for construction purposes during the approximately 24-month construction process and would be trucked in from a nearby off-site location. Nearby water suppliers have adequate water supplies to serve the needs of the Proposed Project in normal, dry, and multiple dry years because the total water required for construction is a negligible portion of the water supplied daily by each water supplier. In particular, SCVWD has estimated its excess supplies in 2025 to be 15,000 AF (4,888 million gallons) based on projected water supply and demand, which would be more than sufficient to serve the Proposed Project. GOWC has also estimated an excess of 6,108 million gallons (18,744 AF) in 2025. It is not anticipated that water would be needed for O&M activities at the proposed Skyline terminal facility because it would not have permanent on-site staff requiring water; therefore, no impacts would occur during O&M activities. The existing orchard trees on the proposed Grove terminal site would require irrigation during O&M.

In addition to water being trucked in from a nearby off-site location, water supply would be supplemented by the existing on-site water supply groundwater well at the proposed Grove terminal. Groundwater supplies are proposed to be used during construction of the proposed Grove terminal, as well as during O&M for irrigation of the orchard trees remaining in place following construction. The amount of groundwater used in addition to off-site supplies would be determined in accordance with applicable regulations and acquired permits to meet the Proposed Project's construction needs. According to the current property owner of the proposed Grove terminal site, existing use of the groundwater well is approximately 10 AF (3,258,514 gallons) per year for irrigation. The anticipated total water use during construction of the entire Proposed Project is approximately 16 million gallons (49 AF); therefore, construction water demand at the proposed Grove terminal site would not exceed supplies of the well. The groundwater well draws from the Santa Clara Subbasin and provides sufficient supplies for agricultural irrigation of the approximately 13.6-acre site, including approximately 3,000 existing orchard trees. Proposed

Project construction would entail removal of approximately 2,850 trees, and approximately 150 trees would be retained along the frontage of Monterey Road at the proposed Grove terminal site during O&M. The proposed change from 3,000 trees to 150 trees would be a reduction of approximately 95 percent, which is a substantial reduction in irrigation needs on-site. Therefore, there would be an overall reduced groundwater demand at the site during construction and O&M of the Proposed Project in comparison to the existing conditions. The groundwater well is anticipated to have sufficient supplies to serve the proposed Grove terminal's irrigation needs during dry, normal, and multiple dry years.

No new or expanded entitlements would be required to accommodate the water needs of the Proposed Project. Additionally, the Proposed Project does not meet the criteria for consideration as a project subject to Water Supply Assessment Requirements under Water Code Section 10912. Therefore, impacts would be less than significant under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Construction of these upgrades would occur concurrently with construction of the rest of the Proposed Project and for a limited duration. Anticipated water use has been accounted for within the total amount for the Proposed Project, including the PG&E facility upgrades. New water use at the PG&E substations would be temporary during construction. The new water line connection would be served by GOWC's existing water system, which has sufficient excess supplies to serve the Proposed Project according to existing projections through 2045 (GOWC, 2021). The modified and expanded substation facilities would not require any new water usage during operations. Water supply at the existing Metcalf substation would be switched from groundwater to water supplied by GOWC. Therefore, the PG&E upgrades would not impact the water supply.

**Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

**No Impact.** Portable toilets would be provided for construction workers. Wastewater would be disposed of by a third-party wastewater disposal company at appropriately licensed facilities that have adequate capacity to accommodate the Proposed Project's needs. The proposed terminals would be remotely operated with no permanent workforce on-site; hence, the Proposed Project would not have permanent sanitary facilities. Portable toilet facilities would not be needed on-site during typical O&M activities. Therefore, no impacts would occur under this criterion**.**

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. The upgrades would not result in the addition of sanitary facilities; therefore, there is no impact under this criterion.

**Would the project 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 Impact.** Solid wastes generated during construction of the Proposed Project would primarily be non-hazardous wastes, including wood, metal, paper, plastic packaging, and approximately 143,000 CY of excavated material. Construction debris volumes (not counting excavation spoils) are estimated at a total of approximately 2,000 CY. The Proposed Project would divert C&D waste during the Proposed Project construction to help the City of San José reach its 75 percent waste diversion rate as required by the San José Municipal Code Section 9.10.2480, which is higher than the State's adopted CALGreen waste diversion goal of 65 percent (Sec. C3-30). As shown in **Table 5.19-1**, *Waste Volume by Type*, the Proposed 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 the City of San José's or County of Santa Clara's solid waste reduction goals.

If possible, recyclable construction material, such as metal poles, fencing, pavement, untreated wood, and clean soil, would be transported to a City-certified C&D recycling facility, such as the Zanker Material Processing Facility. Construction waste that cannot be recycled would ultimately be disposed of at the Kirby Canyon Landfill, the Newby Island Sanitary Landfill, the Guadalupe Landfill, the Ox Mountain Landfill, or another approved facility. Spoils that are not usable and/or are identified as contaminated through appearance would be tested to characterize before appropriate transportation to a licensed landfill facility. Construction waste would be disposed of properly and in accordance with all applicable federal, state, and local laws regarding solid and hazardous waste, including, but not limited to, the California Integrated Waste Management Act of 1989, which set reduction rates for the amount of solid waste sent to landfills. As described above in **Section 5.19.1.5**, *Landfills and Recycling*, the Kirby Canyon Landfill, the Newby Island Sanitary Landfill, the Guadalupe Landfill, and the Ox Mountain Landfill would have sufficient capacity to accommodate the amount of waste anticipated to be generated during construction activities (CalRecycle, 2019).

Treated-wood waste has the potential to be classified as hazardous if it contains certain levels of arsenic, chromium, copper, pentachlorophenol, or creosote. Treated-wood waste often can be identified visually by tags or markings on the wood, when cut staining is visible around the perimeter only, or by discoloration or odor. If encountered, the treated-wood waste would be managed in accordance with applicable California and federal regulations. LS Power would dispose of utility-generated waste while PG&E would dispose of treated-wood waste generated from removal of four PG&E distribution poles, under the Hazardous Waste Fee Health and Safety Code (California Health and Safety Code Chapter 6.5, Section 25143 et seq.). Under this exemption, the wood waste would be disposed in a composite-lined portion of a municipal solid waste landfill that meets requirements imposed by the state policy adopted pursuant to Section 13140 of the Water Code and regulations adopted pursuant to Sections 13172 and 13173 of the Water Code. Further, the solid waste landfill used for disposal is authorized to accept the wood waste under waste discharge requirements issued by the RWQCB pursuant to Division 7 (commencing with Section 13000) of the Water Code. The Kirby Canyon Landfill, Newby Island Sanitary Landfill, Guadalupe Landfill, and Ox Mountain Landfill are all treated-wood waste disposal sites in the County of Santa Clara.

The Proposed Project would be remotely operated with no permanent workforce on-site and would generate minimal solid waste since workers would only periodically visit the site to perform O&M activities. Any waste generated by O&M activities would also be disposed of at the Kirby Canyon Landfill, the Newby Island Sanitary Landfill, the Guadalupe Landfill, the Ox Mountain Landfill, or another approved facility, which have sufficient capacity.

**Table 5.19-1** provides a breakdown of waste volumes by waste type (wood, metal, plastic) generated during all phases of the Proposed Project. Construction waste generated at the PG&E facilities is provided separately below in **Table 5.19-2**, *PG&E Construction Waste*.

**Table 5.19-1: Waste Volume by Type**

| | Proposed Project Phase | | | | | | |
|---|---|---|---|---|---|---|---|
| | Construction | | | | O&M | | |
| Waste Type | Wood | Metal | Plastic | Spoils[1] | Wood | Metal | Plastic |
| Waste Composition | 1.5% | 0.25% | 0.5% | 97.75% | 20% | 20% | 60% |
| Reuse/Recycling Rate | 90% | 80% | 50% | 95% | 90% | 80% | 50% |
| Waste Volume (CY[2]) | 145,000 | | | | 10 | | |

[1] Approximately 8,000 CY of total estimated spoils would be asphalt/concrete, and the remainder would be soils/dirt.
[2] Cubic yards presented as loose cubic yards (LCY). LCY represents estimated CY following excavation.

The Proposed Project would not generate solid waste in excess of state or local standards or in excess of the capacity of local infrastructure. Therefore, impacts would be less than significant under this criterion.

### PG&E Facility Upgrades

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. Construction of these upgrades would occur concurrently with construction of the rest of the Proposed Project and for a limited duration. **Table 5.19-2** provides a breakdown of waste volumes by waste type generated during construction of the PG&E facility upgrades from necessary demolition activities within the existing substations.

**Table 5.19-2: PG&E Construction Waste**

| Waste Type | San Jose B Substation | Metcalf Substation | Total |
|---|---|---|---|
| Electrical control wiring[1] | 6,270 pounds (lbs) | 350 lbs | 6,620 lbs |
| Electrical material[2] | 2,000 lbs | 500 lbs | 2,500 lbs |
| Concrete | 950 CY | 244 CY | 1,194 CY |
| Chain-link fencing[3] | 4,480 lbs | - | 4,480 lbs |
| Soils | 2,350 CY | 4,630 CY | 6,980 CY |
| Asphalt | 144 CY (7,800 square feet [ft$^2$]) | 27 CY (1,500 ft$^2$) | 171 CY (9,300 ft$^2$) |

[1] Electrical control waste consists of a combination of copper and insulation material. A total of approximately 116,000 feet of electrical control wiring conductor would be removed.
[2] Electrical material consists of low-voltage control switches, relays, meters, other monitoring equipment, and steel switchbacks.
[3] Approximately 700 linear feet of chain-link fencing would be removed, which consists of industrial metallic chain link material.

The proposed substation upgrades would divert C&D waste during the Proposed Project construction. The construction workforce would generate minimal solid waste from food, glass, paper, plastic, and packaging materials during construction, which is estimated to be several tons. Construction debris would be collected and placed in approved containers on-site and periodically transported for recycling or proper disposal. Whenever feasible, waste materials generated during construction would undergo recycling and salvage efforts. Salvageable items, such as usable conductor, steel structures, high-voltage circuit breakers, high-voltage disconnect switches, instrument transformers, and hardware would be either sent to recycling facilities, stored at a PG&E facility, or disposed as hazardous material. Some of the native excess soils captured during construction may be reused on-site for grading and backfill purposes. For the handling of contaminated soil and hazardous materials disposal, refer to **Section 5.9**, *Hazards and Hazardous Materials, and Public Safety*. The upgrades would not generate solid waste in excess of state or local standards. There would be no change in solid waste generation from the existing substations to the upgraded substations during O&M activities, as there would be no additional permanent staff on-site. Therefore, impacts would be less than significant under this criterion.

**Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?**

**No Impact.** Construction and O&M activities of the Proposed Project would not be anticipated to generate a substantial amount of solid waste. As previously discussed, solid waste produced during construction and O&M would be recycled or disposed of at a nearby licensed landfill. Management and disposal of solid waste would comply with all applicable federal, state, and local statutes and regulations. As discussed in **Section 3.9.1**, *Decommissioning*, the plan is for the Proposed Project to be in operation or used 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 the Proposed Project facilities..\ Thus, the Proposed Project would not violate any solid waste management and reduction statutes or regulations. Therefore, no impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. The upgrades to the existing substations, during both construction and O&M, would not be anticipated to generate a substantial amount of solid waste, and any solid waste produced would be disposed of in compliance with all applicable federal, state, and local statutes and regulations. Thus, the proposed substation upgrades would not violate any solid waste management and reduction statutes or regulations, and no impacts would occur under this criterion.

**Would the project increase the rate of corrosion of adjacent utility lines as a result of alternating current impacts?**

**Less-Than-Significant Impact.** As discussed in **Section 3.2.2**, *Proposed Project System*, the Proposed Project would introduce new electric transmission lines that would create an additional system tie between the existing PG&E San Jose B and Metcalf substations. The Proposed Project would include the Skyline to San Jose B 115 kV alternating current (AC) station tie line, the Metcalf to Grove 500 kV AC transmission line, and the Grove to Skyline 320 kV DC transmission line. The proposed transmission lines are anticipated to be located primarily underground, with only a

new, short (approximately 100-foot), overhead 115 kV AC station tie line to tie the new Skyline terminal to the existing PG&E San Jose B substation. High induced voltages and currents from transmission lines in close proximity to pipelines can cause a number of issues if not mitigated effectively. The possible effects of this interference include, but are not limited to, accelerated corrosion, degradation of coating, and shock hazards on nearby unprotected metallic pipelines or required modifications to existing active cathodic protection systems. A preliminary analysis of the potential electromagnetic interference and induced current touch potential[1] for the Proposed Project is provided in **Appendix 5.9-C**, *Power Santa Clara Valley Transmission Project - Electromagnetic Effects of AC and DC High Voltage Circuit on Nearby Utilities*.

AC corrosion effects to a metallic pipeline can occur when induced AC current caused by an AC electromagnetic field (e.g., from an AC transmission) degrades or weakens the coating of a metallic pipeline. Industry standard from the National Association of Corrosion Engineers (NACE) SP21424-2018, *Alternating Current Corrosion on Cathodically Protected Pipelines: Risk Assessment, Mitigation and Monitoring,* Section 6.6.2 states that AC corrosion may occur when pipeline AC density levels increase above a time-weighted average of 30 ampere per meter squared[2] ($A/m^2$) if DC current density exceeds one $A/m^2$. AC potentials less than two (2) volts would result in AC density levels less than this limit for pipelines with typical soil resistivity measurements (**Appendix 5.9-C**). Potential impacts associated with existing pipeline corrosion are discussed below for each new transmission line. Potential impacts relating to shock and touch potential are discussed in **Section 5.9**.

**Skyline to San Jose B 115 kV AC Station Tie Line Impacts**

The proposed Skyline to San Jose B 115 kV AC station tie line would be located entirely within the proposed Skyline terminal and PG&E's existing San Jose B substation and would, therefore, not be located in proximity to any other non-substation related utilities. No metallic pipelines would be located within the proposed Skyline terminal or the existing substation facilities; therefore, no metallic pipelines would cross the proposed Skyline to San Jose B 115 kV AC station tie line. Preliminary review of potential electromagnetic interference (see **Appendix 5.9-C**) has identified one existing metallic natural gas pipeline located near the proposed Skyline terminal; however, this pipeline is not located close enough to the proposed Skyline to San Jose B 115 kV AC station tie line to be anticipated to cause AC interference impacts, including pipeline corrosion or coating degradation. As concluded in the preliminary review in **Appendix 5.9-C**, potential AC interference mitigation may be required for metallic pipelines within 30 feet that parallel a 500 kV AC transmission line for a distance of greater than 1,000 feet. Given the location of the proposed Skyline to San Jose B 115 kV AC station tie line within the combined fenced terminal and substation facilities and the short length of the transmission line itself (approximately 100 feet), the proposed Skyline to San Jose B 115 kV AC station tie line would not be anticipated to require mitigation, and additional analysis is not required. No impacts would occur.

**Metcalf to Grove 500 kV AC Transmission Line Impacts**

Based on preliminary design of the proposed Metcalf to Grove 500 kV AC transmission line alignment, the only known existing metallic utilities located in the vicinity are overhead PG&E

[1] Touch potential refers to the measurement of voltage that passes between any two points on a person's body when exposed to electric current. Touch potential can become hazardous if an electric circuit induces current in another material, such as a pipeline, and presents a shock hazard to personnel.

[2] The ampere per meter squared, symbolized $A/m^2$, is the standard unit of electric current density. A current density of 1 $A/m^2$ represents one ampere of electric current flowing through a material with a cross-sectional area of one square meter.

electric distribution and transmission lines, the existing Metcalf substation, and one underground natural gas pipeline that crosses Coyote Ranch Road. Based on available information for the existing pipeline and the proposed Metcalf to Grove 500 kV AC transmission line, potential AC interference was modeled to determine potential impacts, need for mitigation, or if additional analysis was warranted. For this analysis, it was assumed the existing natural gas pipeline is 16 inches in diameter and contains fusion bonded epoxy coating, would cross the proposed Metcalf to Grove 500 kV AC transmission line at an angle of 45 degrees, and could parallel the proposed transmission line for approximately 1,000 feet at a distance of approximately 30 feet. The proposed transmission line was assumed to be operating at steady state load conditions. Based on these assumptions, the maximum AC potential for the 45-degree crossing scenario was 0.8 volt, and the maximum AC potential for the 1,000-foot parallel was two volts. As outlined above and in **Appendix 5.9-C**, potential impacts requiring mitigation could occur, and further analysis (Final Induction and AC/DC Interference Study) is required where AC potential is greater than two volts. Therefore, based on final design and additional utility location and design data (refer to **APM UTIL-1**), a final induction and AC/DC interference study (**APM HAZ-5**, *Final Induction Study and Utility Coordination*) would be prepared. The Final Induction and AC/DC Interference Study would identify any measures required to prevent pipeline corrosion or pipeline coating degradation. The Final Induction and AC/DC Interference Study would also analyze any additional metallic pipelines identified during utility surveys (**APM UTIL-1**). Impacts would be less than significant.

**Grove to Skyline 320 kV DC Transmission Line Impacts**

Based on preliminary design, LS Power has identified thousands of existing utilities located within the vicinity of the proposed Grove to Skyline 320 kV DC transmission line, including metallic pipelines. However, DC electromagnetic fields do not cause the same effect as AC transmission lines. Based on the proposed alignment of the Grove to Skyline 320 kV DC transmission line and the expected minimum separation distances between pipelines and the DC transmission circuit, any DC interference effects directly from the proposed transmission line are not expected to affect existing pipelines. However, DC interference may affect a nearby metallic pipeline, specifically a pipeline's existing cathodic protection system, during a fault condition on the HVDC circuit. These effects would be limited to the grounding locations. As stated above, one metallic pipeline was identified in proximity to the proposed Skyline terminal site. The Induction Study and Utility Coordination (**APM HAZ-5**) would include a detailed analysis of this pipeline and any additional metallic pipelines identified during utility surveys (**APM UTIL-1**) in proximity to grounding locations to prevent pipeline corrosion or pipeline coating degradation. Impacts would be less than significant.

**Utility Locations and Final Induction and AC/DC Interference Study**

LS Power would implement **APM UTIL-1** to ensure impacts to any known adjacent utility pipelines would be identified prior to construction. **APM UTIL-1** requires that LS Power notify all utility companies with utilities located within or crossing the Proposed Project site to locate and mark existing underground utilities. LS Power would also implement **APM HAZ-5**, which requires that LS Power complete an Induction Study and utility coordination for the proposed Grove to Skyline 320 kV DC and Metcalf to Grove 500 kV AC transmission lines. If potential adverse effects would be identified, **APM HAZ-5** requires LS Power to develop appropriate interference mitigation measures in consultation with the affected utility owner/operator. Such mitigation would be incorporated in the final Proposed Project design. Therefore, impacts under this criterion would be less than significant.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. The upgrades to the existing substations would improve the condition of existing utility infrastructure and would not increase the rate of corrosion of adjacent utility lines. The proposed substation upgrades would have no impact under this criterion.

### 5.19.5 CPUC DRAFT ENVIRONMENTAL MEASURES

The CPUC recommends one Draft Environmental Measure for utilities and service systems, which the Proposed Project would implement, with minor edits, to improve applicability to the Proposed Project, as **APM UTIL-1**.

### 5.19.6 APPLICANT PROPOSED MEASURES

The following APMs specific to utilities and service systems would be implemented for the Proposed Project. In addition, **APM HAZ-5** would also apply to utilities impacts.

**APM UTIL-1: Coordination with Utilities**

LS Power shall notify all utility companies with utilities located within or crossing the Proposed Project ROW to locate and mark existing underground utilities along the entire length of the Proposed Project. Due to the linear nature of transmission line construction, utilities shall be marked in short segments at least 14 days prior to construction within said segments. No subsurface work shall be conducted that would conflict with (i.e., directly impact or compromise the integrity of) a buried utility. In the event of a conflict, areas of subsurface excavation shall be realigned vertically and/or horizontally, as appropriate, to avoid other utilities and provide adequate operational and safety buffering or relocation of the existing utility shall be coordinated with each utility owner/operator. LS Power shall coordinate with third-party utilities and shall submit the intended construction methodology to the owner of the third-party utility for review and coordination. Construction methods shall be adjusted as necessary to ensure that the integrity of existing utility lines is not compromised.

### 5.19.7 PG&E BEST MANAGEMENT PRACTICES

No BMPs related to utilities and service systems have been included for PG&E's scope of work.

## 5.20 WILDFIRE

| If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Substantially impair an adopted emergency response plan or emergency evacuation plan? | | | | X |
| 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? | | | | X |
| 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? | | | | X |
| 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? | | | | X |

This section describes the potential wildfire hazards and impacts within the vicinity of the Proposed Project, as well as the potential impacts resulting from construction and operation and maintenance (O&M) of the Proposed Project.

### 5.20.1 ENVIRONMENTAL SETTING

The Proposed Project is located in the County of Santa Clara, predominately within the southern portion of the City of San José. The proposed Skyline terminal site is located in downtown San José, immediately south of the existing Pacific Gas and Electric Company (PG&E) San Jose B substation and surrounded by downtown office and commercial uses to the east and south and the Guadalupe River to the west. The proposed Grove to Skyline 320 kilovolt (kV) direct current (DC) transmission line would connect to the proposed Skyline terminal and span approximately 13 miles underground south through urban development and public road rights-of-way (ROWs) to the proposed Grove terminal site. The proposed Grove terminal site is located approximately

0.65 mile south of the existing PG&E Metcalf substation and Metcalf Energy Center within the County of Santa Clara and City of San José. Land uses in the vicinity of the proposed Grove terminal consist of agricultural and industrial uses, vacant land, and the Coyote Creek Parkway. The topography of the region has influenced development patterns with more rural development along the eastern and southern hillsides and more intensive development on the valley floor.

#### 5.20.1.1 High Fire Risk Areas and State Responsibility Areas

Wildland fire protection in the State of California is the responsibility of the state, local, or federal government. State Responsibility Areas (SRAs) are areas of the State in which the financial responsibility of preventing and suppressing fires has been determined to be primarily the responsibility of the California Department of Forestry and Fire Protection ("CAL FIRE") (Section 4102 Public Resources Code). Local Responsibility Areas (LRAs) include incorporated cities, cultivated agriculture lands, and portions of the desert where fire protection is typically provided by city fire departments, fire protection districts, counties, and by CAL FIRE under contract to local government.

CAL FIRE adopted Fire Hazard Severity Zone (FHSZ) mapping for SRAs throughout the state in 2007. These maps identify wildfire hazard zones and rate them as "moderate," "high," or "very high" based on fuel loading, slope, fire weather, and other relevant factors. The Proposed Project is not located within an SRA. The closest SRA is approximately 100 feet west of the proposed underground Grove to Skyline 320 kV DC transmission line (CAL FIRE, 2007a). This SRA is mapped as a High FHSZ. See **Figure 5.20-1**, *SRA Fire Hazard Severity Zones – 2007*. The CAL FIRE FHSZ maps were revised in 2023 and were approved by the Office of Administrative Law (OAL) on April 1, 2024. Once the new FHSZ mapping is adopted, the Proposed Project would still be outside of any SRA, and the SRA area immediately west of the Proposed Project would no longer be considered an SRA. Once the new 2023 FHSZ maps are adopted, the closest SRA would be approximately 0.2 mile east of the proposed underground Metcalf to Grove 500 kV transmission line, on the other side of U.S. Route 101. See **Figure 5.20-2**, *SRA FHSZ – 2024* to preview the updated FHSZ mapping in the Proposed Project area.

Government Code Section 51175 requires CAL FIRE to also evaluate fire hazard severity in LRAs and to make a recommendation to the local jurisdiction where Very High Fire Hazard Severity Zones (VHFHSZ) exist. The Government Code then provides direction for the local jurisdiction to take appropriate action. To that end, CAL FIRE prepared Draft FHSZ maps for LRAs and prepared Recommended Maps, which identify VHFHSZ areas within LRAs. The Proposed Project area is located within an LRA, and CAL FIRE has mapped the Proposed Project area as being in an LRA Non-VHFHSZ area (CAL FIRE, 2007b, 2007c).

In response to the California Public Utilities Commission's (CPUC's) Fire Safety Rulemaking, the CPUC mapped high fire-threat areas where more stringent requirements would be implemented due to the elevated risk for fires associated with utilities. As shown in **Figure 5.20-3**, *CPUC Fire Threat Districts Map*, the Proposed Project is not located within a CPUC-designated Fire Threat District (CPUC, 2021a). The closest CPUC-designated High Fire Threat District is located approximately 0.5 mile northeast of the Metcalf substation expansion area.

LS Power Grid California, LLC ("LS Power") and PG&E have not independently identified High FHSZ areas within the vicinity of the Proposed Project.

### 5.20.1.2 Fire Occurrence

A "wildfire" is defined in Section 51177(j) of the California Government Code as "…an unplanned, unwanted wildland fire, including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fires where the objective is to extinguish the fire." CAL FIRE defines a "large fire" as being 1,000 acres or greater (CAL FIRE, 2017). The CAL FIRE Incident Archive was reviewed for large fires within a 10-mile radius of the Proposed Project area that have occurred since 2013. See **Table 5.20-1**, *Large Fires Within 10-Mile Radius of the Proposed Project* below for a summary of these results (CAL FIRE, 2023a). See **Figure 5.20-4**, *Fire Occurrence near the Proposed Project* to view the locations of the fires discussed below.

**Table 5.20-1: Large Fires Within 10-Mile Radius of the Proposed Project**

| Name | Location | Ignition Source and Location | Date | Land Burned |
|---|---|---|---|---|
| Loma | 5.5 miles southwest of Metcalf substation | Undetermined | 9/26/2016 | 4,474 acres |
| SCU Lightning Complex | 8 miles east of Metcalf substation | Lightning | 8/16/2020 | 396,624 acres |

Source: CAL FIRE, 2023a

### 5.20.1.3 Fire Risk

Fire risk was analyzed for the Proposed Project by examining factors such as fuels, wind direction and speed, weather patterns, and elevation and topography in the Proposed Project area which is summarized below. The Wildfire Behavior Modeling report prepared for the Proposed Project follows the guidelines set out in CAL FIRE's Community Wildfire Preparedness and Mitigation Program to determine the likelihood of wildfires occurring in the Proposed Project area (CAL FIRE, 2023b; TSS, 2023).

The City of San José experiences mild seasonal weather, including wind variation, over the course of the year. The Proposed Project is located in the Santa Clara Valley, which is known to have a Mediterranean climate, with the wettest season in the winter months and driest in the summer months. The warm season lasts for about four months (late June to early October), with an average daily high temperature above 78 degrees Fahrenheit and the hottest month of the year in July with an average high of 82 degrees Fahrenheit and a low of 60 degrees Fahrenheit. The average annual rainfall for the years 2007 to 2019 in the City of San José was 14.9 inches, and the average annual percentage of humidity is 75 percent (U.S. Climate Data, 2023).

Data from the weather stations closest to the Proposed Project (San José/Reid/Hillview [RHV] Station and San José Mineta International Airport [SJC] Station) was retrieved, and annual and monthly wind direction, velocity, speed, and percentage of calm weather were analyzed. Wind data at the RHV Station reflects observations over the past 43 years, from April 1980 to March 2023, and data at the SJC station reflects observations over the past 54 years, from December 1969 to March 2023. **Figure 5.20-5**, *Annual Summary of Wind Data from RHV and SJC Weather Stations* shows the RHV and SJC Stations' wind roses with four attributes (direction, speed,

average speed, and percentage of calm); and, in wedges, it shows the comparable amount of time the wind was blowing from a compass bearing point and the wind speed breakdown for that bearing. The bearing points were shown to be consistent at both weather stations and indicated a northwest to southeast bearing, with calm weather recorded approximately 30 percent annually at the RHV Station and 23 percent annually at the SJC Station. Average wind speed was 7.2 miles per hour (mph) at the RHV Station and 6.8 mph at the SJC Station. These patterns were the same for the monthly wind roses, indicative of consistent and predictable prevailing winds. These weather stations are very close to the Proposed Project area, and there is no intervening topography to deflect the winds, so it is reasonable to conclude that wind driven fires would move in the same direction (TSS, 2023).

Land type and surface conditions for areas within 0.5 mile of the Proposed Project were identified for the purposes of examining their influence on wildfire behavior and determining what the corresponding Scott/Burgan and/or Anderson fuels model category would be. Each fuels model category corresponds to a wildfire hazard level (WHL) on a low to high scale. The results were as follows: 62.3 percent of the area within 0.5 mile of the Proposed Project contains surface conditions that are considered absolutely non-flammable, 11 percent contains non-flammable surface conditions but with caveats, 10 percent contains surface conditions with a high WHL, 15.9 percent contains surface conditions with a moderate WHL, and 1.7 percent contains surface conditions with a low WHL (TSS, 2023). See **Figure 5.20-6**, *Wildfire Hazard Levels for the Proposed Project Area* to view the fuels model categories and corresponding WHLs along the Proposed Project alignment.

The proposed Skyline terminal site is in downtown San José, located within a developed, commercial area with low-to-moderate WHL. The Guadalupe River Trail runs along the west side of the proposed Skyline terminal site and contains fuels categories of hardwood woodland (high WHL) and oak savannah (over four miles from an SRA ). However, mitigating factors, such as the limited amount of vegetation, high physical access for responding fire personnel, and access to municipal water supplies for suppression, make the risk of significant fire damage in urban areas low (refer to **Figure 5.4-2**, *Vegetation Communities Map*, and **Appendix 5.20-A**, *Wildfire Behavior Modeling and Hazard Assessment*).

The proposed Grove terminal site is currently being used for agriculture (medium-to-high WHL) and is surrounded by the high WHL fuels category of hardwood woodland, as well as the medium-to-high WHL categories of brush/shrub, oak savannah, and grasslands. These fuels categories are capable of supporting fast moving and potentially high-intensity wildfires. Once constructed, the new high-voltage direct current (HVDC) terminals would not contain any vegetation within the terminal perimeter walls (refer to **Figure 5.4-2** and **Appendix 5.20-A**).

The topographic profile of the Proposed Project, including the two HVDC terminals, the Grove to Skyline 320 kV DC transmission line alignment, the Metcalf to Grove 500 kV transmission line alignment, and existing PG&E substation upgrades, was analyzed as part of the Wildfire Behavior Modeling provided by TSS. Results showed that the Proposed Project alignment is relatively flat, with an ascending slope from north (proposed Skyline terminal) to south (proposed Grove terminal), having an average slope of 0.5 percent and generally not exceeding two percent. The topography rises into the hills along the outer edges of the Santa Clara Valley.

Modeling was performed to examine the environmental conditions within and surrounding the Proposed Project as they relate to wildfire risk. The Proposed Project area is relatively flat and

consistent, with mild wind patterns and mild climate that would not result in an exacerbated wildfire risk. In addition, approximately 70 percent of the surface conditions within the Proposed Project study area are considered low or low-to-medium WHL. Although wildfire risk varies for individual sites along the Proposed Project alignment, overall wildfire risk for the area remains low. See **Appendix 5.20-A** to view the Wildfire Behavior Modeling and Hazard Assessment report.

### 5.20.1.4 Values at Risk

As discussed in **Section 5.11**, *Land Use and Planning*, the Proposed Project transmission line corridors run through numerous commercial, industrial, open space, residential, agriculture, mixed use, open hillside, and recreational land use designations. Existing utility infrastructure located within 1,000 feet of the Proposed Project includes the existing PG&E San Jose B and Metcalf substations, consisting of predominately steel structures. There are also existing underground and overhead electric utilities that run parallel to the proposed underground Grove to Skyline 320 kV DC transmission line route in some sections.

The proposed Skyline terminal is located in downtown San José, which has a total population of 69,092. Structures within 1,000 feet of the proposed Skyline terminal consist of the existing San Jose B substation directly to the north; primarily commercial and commercial/industrial buildings directly to the south, northeast, and to the west across the Guadalupe River; multi-family residential complexes to the east; and single-family residential homes located approximately 700 feet northeast of the site (City of San José, 2024). The proposed site is bordered to the east by the State Route (SR)-87 overpass, which consists of concrete and ornamental vegetation under the roadway at ground level. Proximate multi-family residential structures include the Fountain Plaza Apartments, which is a four-story complex with 367 units, located approximately 200 feet east of the site across SR-87. The Iamesi Village Apartments, also located approximately 200 feet east of the site across SR-87, is a six-story complex with 135 units. Commercial and industrial/commercial structures within 1,000 feet include construction and autobody services to the northeast, the Santa Clara County Social Services Agency and other commercial buildings with a parking garage to the south, and a commercial shopping area with large asphalt parking lots and electric vehicle chargers to the west, located across the Guadalupe River. These structures are a mix of wood, steel, masonry, and concrete. There is also a mixed-use commercial area located approximately 950 to 1,000 feet southeast of the Proposed Project site with a mix of single-story multi-family apartments, assorted commercial uses, and the Santa Clara County Housing Authority building. Other land uses within 1,000 feet of the site include the Guadalupe River Park Conservancy building, a children's playground, and the Guadalupe River Park and walking trails. The Guadalupe River also borders the site to the west and is classified as hardwood woodland habitat (refer to **Figure 5.4-2**). Heavily populated commercial and residential areas present a fire risk in the event of a fire due to the amount of flammable materials, such as wood and natural gas, located in close proximity. However, mitigating factors, such as the limited amount of vegetation, high physical access for responding fire personnel, and access to municipal water supplies for suppression, make the risk of significant fire damage in urban areas low (TSS, 2024).

The proposed Grove terminal site is surrounded by agriculture, open space, and recreational land uses. There are no residential communities within 1,000 feet of the proposed Grove terminal site. However, there are six structures on the agricultural land adjacent to the proposed Grove terminal site which serve as work sheds and housing associated with active agricultural operations that would be vulnerable in the event of a wildfire in the area. To the north of the proposed Grove

terminal site, there are wood and steel structures associated with agricultural activities, storage, and housing. Both the proposed Skyline and Grove terminal sites are within 1,000 feet of hardwood woodland habitat, which is associated with riparian corridors and are considered sensitive natural communities (see **Section 5.4**, *Biological Resources* for additional information).

#### 5.20.1.5 Evacuation Routes

Emergency planning and response documents from the County of Santa Clara were reviewed to determine if evacuation routes could affect or be affected by the Proposed Project. These included the County of Santa Clara Emergency Operations Plan (EOP) (2022), the Wildfire Hazard-Specific Annex to the County of Santa Clara EOP (2019), the City of San José EOP (City of San José, 2019a), and Evacuation Support Annex to the EOP (City of San José, 2019b). There are no evacuation routes identified within these plans; however, Coleman Avenue to East Saint James Street and SR-87 would presumably be the primary evacuation route from the proposed Skyline terminal site; and Monterey Road would presumably be the primary evacuation route from the proposed Grove terminal site.

### 5.20.2 REGULATORY SETTING

Federal, state, and local regulations were reviewed for applicability to the Proposed Project.

#### 5.20.2.1 Wildfire Regulatory Setting

**Federal**

***Federal Energy Regulatory Commission***

The Federal Energy Regulatory Commission (FERC) 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, CPUC has adopted General Order (GO) 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 the effective and efficient reduction of risks to the reliability and security of the grid (NERC, 2023). 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 is the Electric Reliability Organization (ERO) for North America, subject to oversight by FERC. To improve the reliability of regional electric transmission systems and in response to the massive widespread power outage that occurred on the Eastern Seaboard in 2003 as a result of a software malfunction, NERC developed a transmission vegetation management program that is applicable to all transmission lines operated at 200 kV and above and to lower-voltage lines designated by the Regional Reliability Organization as critical to the reliability of the electric system in the region (NERC, 2023).

### *Uniform Building Code and Uniform Fire Code*

The Uniform Building Code (UBC) and the Uniform Fire Code (UFC) provide codes for fire protection at the federal level. To minimize potential fire risk and damage to structures, the UBC provides requirements to which building construction, materials, and other elements or construction practices must adhere. The UFC provides design measures for 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 requirements pertaining to fire safety and prevention.

### *Federal Wildland Fire Management Policy*

The Federal Wildland Fire Management Policy was developed in 1995 and updated in 2001 by the National Wildfire Coordinating Group, a federal multi-agency group that establishes consistent and coordinated fire management policy across multiple federal jurisdictions (National Interagency Fire Center, 2009). An important component of the Federal Wildland Fire Management Policy is the acknowledgment of the essential role of fire in maintaining natural ecosystems. The Federal Wildland Fire Management Policy and its implementation include the following guiding principles: risk management is a foundation for all fire management activities; fire management plans and activities are based upon the best available science; and standardization of policies and procedures among federal agencies is an ongoing objective.

## State

### *2019 Strategic Fire Plan for California*

Developed by the Board of Forestry and Fire Protection ("the Board"), the Strategic Fire Plan outlines goals and objectives to implement CAL FIRE's overall policy direction and vision. The 2019 Plan demonstrates CAL FIRE's focus on: 1) fire prevention and suppression activities to protect lives, property, and ecosystem services; and 2) natural resource management to maintain the State's forests as a resilient carbon sink to meet California's climate change goals and to serve as important habitat for adaptation and mitigation. Unit Plans are developed and updated in order to implement the programs and goals of the 2019 Plan. Through the Strategic Plan, CAL FIRE implements and enforces the policies and regulations set forth by the Board and carries forth the mandates of the governor and the legislature (CAL FIRE, 2019).

### *California Emergency Response Plan*

Pursuant to the Emergency Services Act (Government Code §8550 et seq.), California developed an Emergency Plan to coordinate emergency services provided by federal, state, and local governmental agencies and private persons. Response to hazardous materials incidents is one part of this plan of which is administered by the State Office of Emergency Services (OES). The OES coordinates the responses of other agencies, including the United States Environmental Protection Agency (USEPA), California Highway Patrol (CHP), California Department of Fish and Wildlife (CDFW), the Regional Water Quality Control Boards (RWQCBs) (in this case, the San Francisco Bay RWQCB), the local air districts (in this case, the Bay Area Air Quality Management District), 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 (SEMS). The SEMS is an emergency management protocol that agencies

within the State of California must follow during multiagency response efforts whenever state agencies are involved.

### *California Department of Forestry and Fire Protection*

CAL FIRE protects the people of California from fires, responds to emergencies, and protects and enhances forest, range, and watershed values providing social, economic, and environmental benefits to rural and urban citizens. CAL FIRE's firefighters, fire engines, and aircraft respond to an average of more than 6,000 wildland fires each year (CAL FIRE, 2019).

The Office of the State Fire Marshal supports CAL FIRE's mission by focusing on fire prevention. It provides support through a wide variety of fire safety responsibilities, by regulating buildings in which people live, congregate, or are confined; by controlling substances and products which may, in and of themselves, or by their misuse, cause injuries, death, and destruction by fire; by providing Statewide direction for fire prevention in wildland areas; by regulating hazardous liquid pipelines; by reviewing regulations and building standards; and by providing training and education in fire protection methods and responsibilities.

### *State Fire Regulations*

Fire regulations for California are established in Sections 13000 et seq. of the California Health and Services Code and include regulations for structural standards (similar to those identified in the California Building Code [CBC]); fire protection and public notification systems; fire protection devices such as extinguishers and smoke alarms; standards for high-rise structures and childcare facilities; and fire suppression training. The State Fire Marshal is responsible for enforcement of these established regulations and building standards for all State-owned buildings, State-occupied buildings, and State institutions within California.

### *Regulations of the Fire Marshal*

The purpose of the California Code of Regulations Title 19, also known as Regulations of the Fire Marshal, is to establish minimum standards for the prevention of fire and for the protection of life and property against fire, explosion, and panic. Title 19 also specifies that the National Fire Protection Association (NFPA) standards and the NFPA Fire Protection Handbook may be used as authoritative guides in determining recognized fire prevention engineering practices.

### *California Fire Code*

The purpose of California Code of Regulations Title 24, Part 9, also known as the California Fire Code, is to establish the minimum requirements consistent with nationally recognized good practices to safeguard the public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises, and to provide safety and assistance to firefighters and emergency responders during emergency operations.

### *California Building Code*

The CBC provides design and construction measures for structures and other facilities with regard to fire protection and prevention. The CBC supplements the UBC by providing measures that are specific to potential conditions in California. Measures provided in the CBC are integrated and enforced through city and county review of building permits, the Office of the State Fire Marshal, and by local city or county fire chiefs or marshals.

### *California Public Resources Code*

The California Public Resources Code (PRC) provides regulations to enhance safety with regard to the operation and management of electrical transmission lines. These include, but are not limited to, the following:

- PRC Section 4201-4204: This section and Government Code Sections 51175-89 direct CAL FIRE to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, referred to as FHSZ, define the application of various mitigation strategies to reduce risk associated with wildland fires.

- PRC Section 4292: This section requires the clearing of flammable vegetation around specific structures that support certain connectors or types of electrical apparatus. An approximately 10-foot radius around such structures must remain clear of vegetation for the entirety of the fire season.

- PRC Section 4293: This section requires specific clearance between conductors and vegetation. As the line voltage increases, the radius of clearance also increases. It is also required that some trees be removed if they pose the potential to fall on an electrical transmission line and cause damage.

### *CPUC*

See **Section 5.20.2.2**, *CPUC Standards*, below.

### *Senate Bill 1028*

Senate Bill 1028 (2016) requires each electrical corporation to construct, maintain, and operate its electrical lines and equipment in a manner that would minimize the risk of catastrophic wildfire posed by those electrical lines and equipment and makes a violation of these provisions by an electrical corporation a crime under state law. The bill also requires each electrical corporation to annually prepare a wildfire mitigation plan and submit to CPUC for review. The plan must include a statement of objectives, a description of preventive strategies and programs that are focused on minimizing risk associated with electric facilities, and a description of the metrics that the electric corporation uses to evaluate the overall wildfire mitigation plan performance and assumptions that underlie the use of the metrics.

### *Senate Bill 1241*

In 2012, Senate Bill 1241 added Section 66474.02 to Title 7 Division 2 of the California Government Code, commonly known as the Subdivision Map Act. The statute prohibits

subdivision of parcels designated as very high fire hazard, or that are in an SRA, unless certain findings are made prior to approval of the tentative map. The statute requires that a city or county planning commission make three new findings regarding fire hazard safety before approving a subdivision proposal. The three findings are, in brief: (1) the design and location of the subdivision and its lots are consistent with defensible space regulations found in PRC Section 4290-91, (2) structural fire protection services will be available for the subdivision through a publicly funded entity, and (3) ingress and egress road standards for fire equipment are met per any applicable local ordinance and PRC Section 4290.

**Local**

The CPUC has sole and exclusive state jurisdiction over the siting and design of the Proposed Project. Pursuant to CPUC GO 131-D, Section XIV.B, "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 the City of San José and the County of Santa Clara do not have jurisdiction over the Proposed Project. Because the CPUC has exclusive jurisdiction over the Proposed Project siting, design, and construction, the Proposed Project is not subject to local land use and zoning regulations or discretionary permits. This section includes a summary of local wildfire-related policies, plans, or programs for informational purposes. Although LS Power is not subject to local discretionary permitting, ministerial permits would be secured as appropriate.

**County of Santa Clara General Plan**

The following relevant goals and policies related to wildfire from the County of Santa Clara General Plan were reviewed and provided below for informational purposes (County of Santa Clara, 1994).

**Strategy 2** Minimize the Resident Population Within High Hazard Areas.

***Fire Hazards*** Much of the mountainous areas of Santa Clara County are considered "high fire hazard areas," due to a variety of factors, including:

- Climatic factors, such as rainfall and wind patterns;
- The amount of naturally-occurring "fuel" for fires, such as brush, dead trees, and grasses that ignite easily and burn hotly; and
- Inaccessibility and lack of available water supplies for fire suppression.

**Policy C-HS 28** Countywide strategies for reducing the threat of natural hazards to life and property should include:

- Inventory hazards and monitor changing conditions.
- Minimize the resident population within high hazard areas.
- Design, locate and regulate development to avoid or withstand hazards.
- Reduce the magnitude of the hazard, if feasible.
- Provide public information regarding natural hazards.

**Policy C-HS 30** Local jurisdictions' urban development and land use policies should minimize the resident population within areas subject to high natural hazards in order to reduce the overall risk to life and property and the cost to the general public of providing urban services and infrastructure to urban development.

**Policy C-HS 33** Development in areas of natural hazards should be designed, located, and otherwise regulated to reduce associated risks, by regulating the type, density, and placement of development where it will not: a. be directly jeopardized by hazards; b. increase hazard potential; and c. increase risks to neighboring properties.

**Policy C-HS 35** Information about the prevalence and threats of natural hazards shall be provided to the public to maintain general awareness and support for governmental actions needed to improve public safety.

***City of San José General Plan***

The following relevant goals and policies related to wildfire from the City of San José General Plan were reviewed and provided below for informational purposes (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 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 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.

#### 5.20.2.2 CPUC Standards

**GO *95***

The CPUC originally adopted GO 95 in 1941. GO 95 governs the design, construction, and maintenance of overhead electrical lines. On May 4, 2000, the CPUC issued D.98-07-097 to adopt revisions to GO 166 which addressed matters relating to electric service reliability and safety and focused on minimizing potential hazards posed by damage to electric distribution facilities. On January 18, 2012, the CPUC issued D.12-01-032, which adopted significant revisions to GO 95, Overhead Electric Line Construction, and GO 165, Inspection Requirements for Electric Distribution and Transmission Facilities. Phase I and Phase II revisions to GOs 95 and 165 addressed vegetation management practices, inspection cycles, corrective maintenance timeframes, and other fire-reduction measures in fire threat zones.

The CPUC also provides an annual guide to utilities for creating their Wildfire Mitigation Plans (WMPs) based on guidance provided in D.19-05-036. The WMP template includes substantive and procedural requirements for WMPs based on lessons learned and input from stakeholders and the Wildfire Safety Advisory Board. The most recent WMP 2021 Guidelines were focused on such principles as standardizing information collection, systematizing qualitative information, and tracking utility progress towards wildfire risk reduction (CPUC, 2021b).

The CPUC has promulgated various rules to implement the fire safety requirements of GO 95, including:

- **GO 95, Rule 18A**, which requires utility companies to place a high priority on the correction of significant fire hazards in high fire-threat areas of California and that each utility company establish an auditable maintenance program;

- **GO 95, Rule 31.1**, which generally requires that overhead electrical lines be designed, constructed, and maintained in accordance with accepted good practices for the given conditions known at the time;

- **GO 95, Rules 31.2, 80.1A, and 90.1B**, which set the minimum frequency for inspections of aerial communication facilities located in close proximity to power lines in high fire-threat areas throughout California;

- **GO 95, Rule 35, Table 1, Case 14**, which requires increased radial clearances between bare-line conductors and vegetation in high fire-threat areas of California;

- **GO 95, Rule 38**, which establishes minimum vertical, horizontal, and radial clearances of wires from other wires;

- **GO 95, Rule 43.2.A.2**, which requires that for lines located within Tier 2 or Tier 3 zones, the wind loads required in Rule 43.2.A.1 be multiplied by a wind load factor of 1.1; and

- **GO 95, Appendix E**, which authorizes increased time-of-trim clearances between bare-line conductors and vegetation in high fire-threat areas of California.

**GO *165***

GO 165 establishes requirements for the inspection of electric distribution and transmission facilities that are not contained within a substation. Utilities must perform "patrol" inspections, defined as a simple visual inspection of utility equipment and structures that is 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 five years for all overhead conductor and cables, transformers, switching/protective devices, and regulators/capacitors. By July 1st of each year, each utility subject to this GO must submit an annual report of its inspections for the previous year under penalty of perjury.

- **GO 165, Appendix A, Table 1** requires more frequent patrol inspections of overhead powerline facilities in rural, high fire-threat areas of California.

**GO *166***

GO 166 applies to all electric utilities subject to the jurisdiction of the CPUC with regard to matters relating to electric service reliability and/or safety. This standard requires that utility companies outline a plan to mitigate power line fires when wind conditions exceed the structural design standards of the line during a Red Flag Warning in a high fire-threat area. Fire Prevention Plans created by utility companies are required to identify specific parts of the utility's service territory where fire exacerbating conditions may occur simultaneously.

- **GO 166, Standard 1.E** requires each electric utility in California to develop and submit a plan to reduce the risk of fire ignitions by overhead facilities in high fire-threat areas during extreme fire-weather events.

- **GO 166, Standard 11** requires that utilities report annually to the CPUC regarding compliance with GO 166.

***GO 174***

GO 174 applies to electric utilities subject to the jurisdiction of the CPUC with regard to electric utility substations and facilities subject to the California Independent System Operator's (CAISO) operational control and/or subject to FERC reliability. This standard requires that utility companies outline requirements, including inspection and reporting, that will promote safety and adequacy of service.

## 5.20.3 IMPACT QUESTIONS

### 5.20.3.1 CEQA Impact Questions

According to Section 15002(g) of the California Environmental Quality Act (CEQA) Guidelines, "a significant effect on the environment is defined as a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." As stated in Section 15064(b) of the CEQA Guidelines, the significance of an activity may vary with the setting. The potential significance of project-related impacts related to wildfire was evaluated for each of the criteria from Appendix G of the CEQA Guidelines, as discussed in the following sections.

The significance criteria for assessing the impacts to wildfire come from the CEQA Appendix G Environmental Checklist. According to the CEQA Checklist, if located in or near state responsibility areas or lands classified as very high fire hazard severity zones, a project may cause a potentially significant impact if it would:

- Substantially impair an adopted emergency response plan or emergency evacuation plan; or

- 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; or

- 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; or

- 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.

### 5.20.3.2 Additional CEQA Impact Questions

Pursuant to the *Guidelines for Energy Project Applications Requiring CEQA Compliance: Pre-filing Proponent's Environmental Assessments* (CPUC, 2019), there are no additional CEQA Impact Questions required for wildfire.

## 5.20.4 IMPACT ANALYSIS

### 5.20.4.1 Wildfire Impact Analysis

**If located in or near state responsibility areas or land classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?**

**No Impact**. The Proposed Project is not located within an SRA or lands classified as VHFHSZ. The nearest VHFHSZ is approximately 1.5 miles east of the proposed Grove terminal, while the nearest SRA is approximately 100 feet west of a portion of the proposed underground Grove to Skyline 320 kV DC transmission line and is classified as a High FHSZ (see **Figure 5.20-1**). The majority of the Proposed Project is over four miles from an SRA. Emergency planning and response documents from the County of Santa Clara were reviewed to determine if evacuation routes may be affected by the Proposed Project, including the County of Santa Clara EOP (2022), the Wildfire Annex Hazard-Specific Annex to the County of Santa Clara EOP (2019), the City of San José EOP (City of San José, 2019a), and Evacuation Support Annex to the EOP (City of San José, 2019b). There are no emergency evacuation routes identified within these plans that would be affected by the Proposed Project.

Moreover, in accordance with **Applicant Proposed Measure (APM) TRA-1**, *Traffic Control Plan*, potential lane closures or traffic lane modification plans would be reviewed and approved by the County of Santa Clara and the City of San José, as applicable, and all construction activities would be coordinated with local law enforcement and fire protection agencies. Implementation of **APM TRA-1** would require the preparation of a Traffic Control Plan (TCP), which would provide measures to be taken to guide traffic around construction and ensure the safety of both the public and personnel during Proposed Project activities. Emergency service providers would be notified of the timing, location, and duration of construction activities. Therefore, no impacts would occur under this criterion.

**PG&E Facility Upgrades**

In order to integrate the proposed HVDC terminals and new Grove to Skyline 320 kV DC transmission line into the existing transmission system, PG&E would be required to perform upgrades at two existing substations: modifications to the Metcalf substation and expansion of the San Jose B substation (refer to **Section 3.3.5**, *Other Potentially Required Facilities*). These upgrades would occur within and adjacent to the existing substation facilities. The PG&E facility upgrades would also include a new water line to the existing Metcalf substation, which would extend approximately 800 feet north-northeast from the Metcalf substation and connect to an existing 16-inch water main near the corner of Metcalf Road and Malech Road, which is served by the Great Oaks Water Company The existing PG&E substations and the proposed San Jose B rebuild expansion are not located within an SRA or lands classified as VHFHSZ. The nearest SRA and the proposed work at the existing PG&E substation facilities would not change the existing use of the sites and would not impair any emergency response plan or emergency evacuation plan. Therefore, no impact would occur.

**If located in or near state responsibility areas or land classified as very high fire hazard security zones, would the project 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 Impact.** The Proposed Project is not located within an SRA or lands classified as VHFHSZ. The nearest VHFHSZ is approximately 1.5 miles east of the proposed Grove terminal, while the nearest SRA is approximately 100 feet west of a portion of the proposed underground Grove to Skyline 320 kV DC transmission line and is classified as a High FHSZ (see **Figure 5.20-1**). The majority of the Proposed Project is over four miles from an SRA. The Proposed Project area is characterized by flat topography, mild seasonal weather, and consistent, mild wind patterns that would not be expected to exacerbate wildfire risks (see **Section 5.20.1.3**, *Fire Risk).* LS Power would prepare a WMP for its existing California projects prior to their energization, and this plan would be updated to include the Proposed Project prior to its energization. Additionally, the new HVDC terminal facilities would be operated remotely, and the new Metcalf to Grove 500 kV and Grove to Skyline 320 kV DC transmission lines would be underground, thereby mitigating fire risk from overhead utilities. No impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. The existing PG&E substations and the proposed San Jose B rebuild expansion are not located within an SRA or lands classified as VHFHSZ. The nearest SRA and the proposed upgrades would not change the existing use of the sites. Therefore, no impact would occur.

**If located in or near state responsibility areas or land classified as very high fire hazard severity zones, would the project 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 Impact.** The Proposed Project is not located within an SRA or lands classified as VHFHSZ. The nearest VHFHSZ is approximately 1.5 miles east of the proposed Grove terminal, while the nearest SRA is approximately 100 feet west of a portion of the proposed underground Grove to Skyline 320 kV DC transmission line and is classified as a High FHSZ (see **Figure 5.20-1**). As the line would be installed within the existing Monterey Road public ROW near the High FHSZ, this activity would not exacerbate the risk of wildfire. The proposed Grove terminal would also be located near an SRA (approximately 1,200 feet east); however, it is separated from the SRA by U.S. Route 101, and the area immediately east of U.S. Route 101 within the SRA is maintained as PG&E ROW where vegetation is routinely maintained, making it unlikely a large fire would spread to the SRA from the Proposed Project area, or vice versa. The majority of the Proposed Project is over four miles from an SRA.

As discussed in **Section 3.5.13**, *Fire Prevention and Response*, during construction activities that are considered "hot work" (e.g., welding, grinding, or any other activity that creates hot sparks), LS Power would implement buffers and clear vegetation as needed to prevent fire hazards. During operation, the new HVDC terminal facilities would maintain a buffer clear of vegetation. No

vegetation would be installed or allowed to grow within the proposed fenced HVDC terminal facilities where above-ground energized equipment would be located. The proposed vegetation to be retained along Monterey Road (refer to **Figure 3-7**, *General Arrangement Grove Terminal*) would be located approximately 200 feet from the terminal fence line and would not result in a fire risk. The proposed terminal facilities would be operated remotely, and the proposed Metcalf to Grove 500 kV and Grove to Skyline 320 kV DC transmission lines would be underground, thereby mitigating potential fire risk related to overhead electrical utilities. Additionally, LS Power would prepare a WMP for its existing California projects prior to their energization; the WMP would be updated to include the Proposed Project prior its energization. Therefore, the Proposed Project would not exacerbate fire risk such that temporary or ongoing impacts to the environment would occur. No impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. The existing PG&E substations and the proposed San Jose B rebuild expansion are fully developed, mostly rocked or paved, and not located within an SRA or lands classified as VHFHSZ. The nearest SRA and the proposed upgrades would not change the existing use of the sites. Therefore, no impact would occur.

**If located in or near state responsibility areas or land classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?**

**No Impact**. The Proposed Project is not located within an SRA or lands classified as VHFHSZ. The nearest VHFHSZ is approximately 1.5 miles east of the proposed Grove terminal, while the nearest SRA is approximately 100 feet west of a portion of the proposed underground Grove to Skyline 320 kV DC transmission line and is classified as a High FHSZ (see **Figure 5.20-1**). The majority of the Proposed Project is over four miles from an SRA. The topographic profile of the Proposed Project alignment was analyzed as part of the Wildfire Behavior Modeling provided in **Appendix 5.20-A**. Results showed that the Proposed Project alignment is relatively flat, with an ascending slope from north (proposed Skyline terminal) to south (proposed Grove terminal), having an average slope of 0.5 percent and generally not exceeding two percent. As discussed in **Section 5.7**, *Geology, Soils, and Paleontological Resources*, the Proposed Project is not located within a landslide-prone area. In addition, as discussed in **Section 5.10**, *Hydrology and Water Quality*, the Proposed Project would not significantly impact the drainage or existing runoff of the surrounding area. Therefore, no impacts would occur under this criterion.

**PG&E Facility Upgrades**

The PG&E substation upgrades would occur within and adjacent to the existing substation facilities, and the proposed new water line would extend approximately 800 feet north-northeast of the existing Metcalf substation. The existing PG&E substations and the proposed San Jose B rebuild expansion are fully developed, mostly rocked or paved, and not located within an SRA or lands classified as VHFHSZ. The nearest SRA and the proposed upgrades would not change the existing use of the sites. Furthermore, the existing PG&E substations are not located in landslide

prone areas and would not significantly impact the drainage or runoff of the surrounding areas. Therefore, no impact would occur.

### 5.20.5 CPUC DRAFT ENVIRONMENTAL MEASURES

The CPUC Draft Environmental Measures for wildfire include a Construction Fire Prevention Plan and Fire Prevention Practices (Construction and Maintenance) to be considered as the basis for mitigation where appropriate to address potentially significant impacts. However, because the Proposed Project is not located within an area designated as Very High or High FHSZ and there would be no impacts, these measures are not warranted.

### 5.20.6 APPLICANT PROPOSED MEASURES

No APMs for wildfire would be implemented for the Proposed Project.

### 5.20.7 PG&E BEST MANAGEMENT PRACTICES

No wildfire Best Management Practices have been included for PG&E's scope of work.

## 5.21 MANDATORY FINDINGS OF SIGNIFICANCE

| Would the project: | | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|---|
| a. | Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | | | X | |
| b. | Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.) | | | X | |
| c. | Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | | | X | |

This section provides an impact analysis for each of the Mandatory Findings of Significance provided in Appendix G of the California Environmental Quality Act (CEQA) Guidelines.

### 5.21.1 IMPACT QUESTIONS

#### 5.21.1.1 CEQA Impact Questions

The significance criteria for assessing the impacts to Mandatory Findings of Significance comes from the CEQA, Appendix G Environmental Checklist. According to the CEQA Checklist, a project may cause a potentially significant impact if it would:

- Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory; or

- Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.); or

- Have environmental effects which cause substantial adverse effects on human beings, either directly or indirectly.

## 5.21.2 IMPACT ANALYSIS

### 5.21.2.1 Mandatory Finding Impact Analysis

**Would the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?**

**Less-Than-Significant Impact**. See **Sections 5.3**, *Air Quality*; **5.4**, *Biological Resources*; **5.5**, *Cultural Resources*; **5.9**, *Hazards, Hazardous Materials, and Public Safety*; **5.18**, *Tribal Cultural Resources*; and **Section 7.0**, *Cumulative and Other CEQA Considerations*. For the reasons explained there, the Proposed Project does not have the potential to substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; substantially reduce the number or restrict the range of an endangered, rare or threatened species; or eliminate important examples of the major periods of California history or prehistory.

The Proposed Project is primarily located within already modified and disturbed urban, developed, and agricultural lands, with a small portion crossing through open space lands. The current level of disturbance and human activity associated with the City of San José is very high within a majority of the Proposed Project impact areas. Within the Proposed Project area, three moderate special-status plants have the potential to occur: Tiburon paintbrush, Santa Clara Valley dudleya, and Metcalf Canyon jewelflower. Special-status animals with a high or moderate potential to occur include three invertebrate species, four mammal species, sixteen bird species (including various raptors), one fish species, one reptile species, and three amphibian species. These species include: bay checkerspot butterfly, monarch butterfly, Crotch's bumblebee, silver-haired bat, hoary bat, San Joaquin kit fox, American badger, Swainson's hawk, burrowing owl, tricolored blackbird, Allen's hummingbird, bald eagle, Bullock's oriole, California gull, California thrasher, Clark's grebe, common yellowthroat, Lawrence's goldfinch, Nuttall's woodpecker, western grebe, wrentit, yellow-billed magpie, raptors, western pond turtle, California red-legged frog, foothill yellow-legged frog, California tiger salamander, and Central California Coast steelhead. Twenty-one other special-status species have a low potential for occurrence in the Proposed Project area. The Proposed Project area also has existing transmission structures nearby that support raven and raptor nests. There is also the potential for migratory birds to nest on the ground or trees and shrubs located within and in the immediate vicinity of the Proposed Project area. Raptors (protected by the Migratory Bird Treatment Act [MBTA] and the California Fish and Game Code [CFGC]) were identified as having a high potential to occur within the Survey Area as discussed in Section **5.4**, *Biological Resources*.

The Guadalupe River and Coyote Creek are located within the Proposed Project area, and only one fish species with a high potential to occur was identified, the Central California Coast steelhead. Coyote Creek is designated critical habitat for the steelhead, and the Proposed Project would cross Coyote Creek as part of the construction of the Metcalf to Grove 500 kilovolt (kV) transmission line. Specifically, the transmission line would be installed under Coyote Creek utilizing horizontal directional drilling (HDD). No direct impacts to steelhead or its habitat would occur. LS Power Grid California, LLC ("LS Power") would implement **Applicant Proposed Measures (APMs) BIO-1** through **BIO-16**, which would reduce potential impacts to biological resources, to less than significant. While Pacific Gas and Electric Company (PG&E) substation modifications and new water line are not anticipated to result in impacts to biological resources, PG&E would implement **Field Protocols (FPs) 1** through **18** as well as construction **Best Management Practices (BMPs) BIO-1**, *Worker Environmental Awareness Program (WEAP) Training*, **BIO-2**, *Burrowing Owl*, and **BIO-3**, *Nesting Birds*.

There is one known archaeological resource within the Proposed Project area (P-43-000571), which was evaluated and recommended not eligible for listing on the National Register of Historic Places (NRHR) or the California Register of Historic Resources (CRHR). In addition, there may be unrecorded subsurface archaeological resources, as indicated by recorded archaeological sites within the record search buffer. The Proposed Project would entail excavation that may encounter archaeological remains. **APMs CUL-1**, *WEAP Training*, **CUL-2**, *Archaeological and Native American Monitoring*, and **CUL-3**, *Unanticipated Discovery of Potentially Significant Prehistoric and Historic Resources* would reduce impacts to less than significant if previously unidentified cultural resources are encountered during construction. **APM CUL-4**, *Cultural Resources Inventory* would reduce impacts to less than significant if the Proposed Project area is expanded or adjusted. There are no known archaeological resources, as defined in CEQA Section 15064.5, located within the PG&E facility upgrade area. However, there may be unrecorded subsurface archaeological resources. PG&E would implement **BMPs CULT-1** through **CULT-4**, which would reduce potential impacts to less than significant. There are two known historical resources, as defined in CEQA Section 15064.5, located within the Proposed Project area (P-43-002628 and P-43-002629), and one known historical resource located in the PG&E facility upgrade area (P-43-001116). Implementation of **APMs CUL-1** through **CUL-4** and PG&E **BMPs CULT-1** through **CULT-5** would reduce potential impacts to less than significant. There are two known resources associated with human remains located within the Proposed Project area (P-43-001279 and P-43-003535), and unrecorded human remains may be present within the Proposed Project area. Implementation of **APMs CUL1** through **CUL-3** and **CUL-5**, *Human Remains* would reduce potential impacts to less than significant. There is one known resource associated with human remains (P-43-000189) located along the proposed new PG&E water line connection alignment. P-43-000189 is a prehistoric village site with human remains that was determined eligible for listing on the NRHP and CRHR (1978). It was subjected to data recovery and reburial, and the site was expanded and updated during the survey for the Proposed Project. Implementation of PG&E **BMPs CULT-1** through **CULT-5** would reduce potential impacts to less than significant.

Therefore, with implementation of **APMs BIO-1** through **BIO-16** and **CUL-1** through **CUL-5**, **FPs 1** through **18**, and **BMPs BIO-1** through **BIO-3** and **CULT-1** through **CULT-5**, impacts would be less than significant under this criterion.

**Would the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?**

**Less-Than-Significant Impact.** The Proposed Project is largely sited in already disturbed areas, with the proposed transmission lines primarily sited underground in existing roadway rights-of-way. The cumulative impacts of the Proposed Project are described in **Section 7.0**, and the impacts are less than significant. As discussed, over 70 projects are proposed for development or are being developed in the Proposed Project area with potential overlapping schedules with the Proposed Project. Negligible impacts were identified to wildfire, population, and housing. There is no loss of forest land and minimal loss of Prime Farmland due to the removal of an existing orchard. The Proposed Project would contribute incrementally to cumulative impacts during construction in the Proposed Project area related to air quality, greenhouse gas (GHG) emissions, hazardous materials, and traffic; however, the Proposed Project would not make a considerable contribution to any cumulative impacts. With respect to the Proposed Project's potentially cumulative impacts relating to air quality, it is important to note that air quality and GHG impacts are inherently cumulative. Emissions from various sources throughout an Air Basin are additive and cumulatively contribute to the basin's attainment status with respect to the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS). Because of this, most significance thresholds are developed such that an individual project's significance determination can also be determinative of its cumulative impact. That is to say, if a project's individual emissions exceed applicable significance thresholds, such impact would be considered individually significant, as well as resulting in a cumulatively considerable contribution to a significant cumulative impact. The Bay Area Air Quality Management District (BAAQMD) thresholds of significance that are used as the basis for determining the Proposed Project's impacts relating to criteria pollutants were developed with respect to the fact that air quality impacts are inherently cumulative. Similarly, GHG impact thresholds and the analysis for the Proposed Project account for cumulatively considerable contribution to global climate change. The Proposed Project's contribution to cumulative impacts for air quality and GHG are less than significant, as discussed in **Section 5.3** and **Section 5.8**, *Greenhouse Gas Emissions*. Thus, the Proposed Project would not have environmental effects that are individually limited but cumulatively considerable. Therefore, the impact would be less than significant under this criterion.

**Would the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?**

**Less-Than-Significant Impact**. The Proposed Project would not substantially adversely affect human beings, either directly or indirectly. Potential construction impacts associated with human health include the presence of hazards, hazardous materials use, temporary noise, air quality, and GHG emissions. As discussed in **Sections 5.3**, **5.8**, **5.9**, and **5.13**, *Noise*, construction impacts would be less than significant. APMs would further reduce the potential for adverse effects.

Construction noise represents a short-term impact on the ambient noise levels. Noise generated by construction equipment includes haul trucks, water trucks, graders, dozers, loaders, excavators, and scrapers, which can reach relatively high noise levels. The most effective method of controlling construction noise is through local control of construction hours and by limiting the hours of construction to normal working hours. Impacts from construction-related ground-borne

vibration, should they occur, would be intermittent and confined to the immediate area (i.e., within 50 feet) surrounding the activity. Implementation of **APM NOI-1**, *Vibration Monitoring and Construction Contingency Plan* would ensure potential impacts relating to vibration-inducing construction be less than significant.

As summarized in **Tables 5.3-5** through **5.3-9** in **Section 5.3**, the Proposed Project would not exceed any of the BAAQMD thresholds, which would ensure compliance with both the City of San José and County of Santa Clara CEQA requirements. The Proposed Project would be required to implement BMPs per BAAQMD requirements during construction, which would typically reduce emissions below what was captured within the Proposed Project modeling which are also below the applicable CEQA thresholds. In addition, this section outlines **APM AQ-2**, *Dust Control BMPs*, which will minimize nuisance dust from the Proposed Project construction. Because the Proposed Project is in an area with known encounters of naturally-occurring asbestos (NOA), as required by **APM AQ-3**, *Naturally-Occurring Asbestos Compliance*, Proposed Project construction that occurs belowground would be conducted in compliance with the CARB Asbestos Airborne Toxic Control Measure.

The Proposed Project seeks to construct stationary electrical high-voltage direct current (HVDC) terminals, and the primary sources of GHG emissions would be attributed to sulfur hexafluoride ($SF_6$) insulated switchgear and to a lesser extent vehicle trips associated with construction and maintenance of the terminals and transmission lines. The Proposed Project's estimated GHG emissions are analyzed based on stationary source recommendations provided in the 2022 CEQA Guidelines established by the BAAQMD (BAAQMD, 2022). Based on this guidance, if GHG emissions are less than 10,000 metric tons of carbon dioxide equivalent ($MTCO_2e$) per year, the impact would be less than significant. Further information is available in **Section 5.8**.

The Proposed Project would include design specifications and operation and maintenance (O&M) procedures in order to minimize the potential for the release or improper disposal of hazardous materials during Proposed Project operation. As described in **Section 5.9**, construction of the Proposed Project would require the routine use of construction equipment that would use or contain hazardous materials, including, but not limited to, diesel fuel, gasoline, lubrication oil, hydraulic fluid, antifreeze, transmission fluid, lubricating grease, and cement slurry. Equipment containing or transporting these materials would regularly travel throughout the Proposed Project area and region during construction periods. Additionally, the Proposed Project would include transformers containing mineral oil, which is considered a hazardous material in the State of California. Each transformer would have an oil containment system consisting of an impervious, lined, open, or stone-filled sump area around the transformer. Implementation of a site-specific Spill Prevention, Control, and Countermeasure Plan (SPCCP) would ensure that any accidental spills are contained, consistent with **APM HAZ-1**, *Site-Specific Spill Prevention, Control, and Countermeasure Plan*.

As detailed in **Section 5.9.1.1**, *Hazardous Materials Report*, there are 11 documented facilities where existing contamination of soil or groundwater is present and has the potential to be encountered during construction of the Proposed Project (refer to **Figure 5.9-1**, *Contaminated Sites Map*). O&M activities associated with the Proposed Project would not result in impacts related to existing contamination. The proposed HVDC terminal sites would be remotely operated with no permanent workforce on-site, and the finished ground cover and other structures would consist of pervious and impervious surfaces. While contaminated soils may be present within the Proposed Project area, implementation of **APMs HAZ-2**, *Hazardous Materials Management Plan*, **HAZ-3**, *Skyline Terminal Soil and Groundwater Contamination Management*, and **HAZ-4**, *Soil*

*Management Plan* would ensure that the soil and groundwater is tested, handled, and disposed of properly, according to testing results. Implementation of **APM HAZ-5**, *Final Induction Study and Utility Coordination* would require coordination with utility owners, as applicable, to avoid unsafe electromagnetic induction effects on any existing metallic utilities located in close proximity to the proposed transmission lines and prevent potential shock hazards. Therefore, impacts would be less than significant under this criterion.

# 6.0 COMPARISION OF ALTERNATIVES

This section includes a comparison of the alternatives described in **Section 4.0**, *Description of Alternatives* of the Proponent's Environmental Assessment (PEA). As discussed in **Section 4.0**, the PEA focuses on site and route alternatives because the California Independent System Operator (CAISO) conducted a detailed analysis of project need and suite of solutions, culminating with the publication of the Functional Specifications for the Proposed Project in the 2021-2022 Transmission Plan (CAISO, 2022). The Functional Specifications included specific design parameters that were required to be included in bids submitted to CAISO for the Proposed Project. LS Power Grid California, LLC ("LS Power"), in its successful bid to CAISO for the Proposed Project, committed to meeting the Functional Specifications and memorialized this commitment in the Approved Project Sponsor Agreement executed on August 28, 2023. For example, the Proposed Project included in this PEA (refer to **Section 3.0**, *Proposed Project Description*), includes construction of a new 320 kilovolt (kV) direct current (DC) transmission line and two high-voltage direct current (HVDC) terminals designed to connect two existing Pacific Gas and Electric Company (PG&E) electric substations (Metcalf and San Jose B). Alternatives that would not achieve the minimum Functional Specifications, such as construction of an alternating current (AC) transmission line between the Metcalf and San Jose B substations or construction of battery energy storage, were thus rejected. These rejected alternatives are not included in the comparison of alternatives.

## 6.1 ALTERNATIVES COMPARISON

A comparison of the alternatives is provided in the following subsections, including the following specific alternative categories:

- HVDC Terminal Site Alternatives
  - Grove Terminal
  - Skyline Terminal
- Grove to Skyline 320 kV DC Transmission Line Alternatives
- Metcalf to Grove Transmission Line Alternatives

Alternatives that were rejected from comparison here are discussed in **Section 4.3**, *Rejected Alternatives*. These include alternatives and alternative types that did not meet the CAISO Functional Specifications, even if they may have reduced or eliminated one or more impacts when compared to the Proposed Project.

The comparison of alternatives is provided below, by alternative type. No significant unavoidable impacts were identified for the Proposed Project; therefore, the alternatives comparison herein focuses on where alternatives would have comparatively greater or lesser impacts to specific resources or significance criteria. Comparisons to the Proposed Project are provided using the following descriptors with respect to potential adverse impacts:

- *Similar (S)*. Impacts are anticipated to be substantially similar to those of the Proposed Project, as analyzed within PEA **Section 5.0**, *Environmental Analysis*.
- *Less (L)*. Impacts are anticipated to be measurably less and/or lesser than those of the Proposed Project, as analyzed within PEA **Section 5.0**.
- *Greater (G)*. Impacts are anticipated to be measurably more and/or greater than those of the Proposed Project, as analyzed within PEA **Section 5.0**.

- *Unknown (U)*. Impacts compared to the Proposed Project are unknown due to lack of data or similar required information.

Where impacts would differ between the alternatives and the Proposed Project, these impacts are further explained.

### 6.1.1 COMPARISON OF TERMINAL SITE ALTERNATIVES

Terminal site alternatives were analyzed to compare potential adverse environmental effects based on the topic areas included within the California Public Utilities Commission (CPUC) PEA Guidelines (CPUC, 2019).

#### 6.1.1.1 Grove Terminal Site Alternatives

As discussed in **Section 4.1.1**, *Grove Terminal Site Alternatives* and shown on **Figure 4-1**, *Grove Terminal Alternative Sites Map*, the following four alternative sites were considered for the Grove terminal site:

- Alternative Grove 1
- Alternative Grove 2
- Alternative Grove 3
- Alternative Grove 4

**Table 6-1**, *Impact Comparison for the Grove Terminal Alternatives* compares the anticipated impacts for each Grove terminal alternative to those of the proposed Grove terminal site using the descriptor system explained above. As shown in **Table 6-1**, Alternative Grove 3 has the least impacts as compared to the proposed Grove terminal site. Alternative Grove 4 would also have less and lesser impacts than the proposed Grove terminal, but more and greater impacts than Alternative Grove 3. Alternative Grove 2 has impacts similar to the proposed Grove terminal, differing only for cultural (historical) resources and agriculture. All other impacts would be substantially similar to the proposed Grove terminal site. Finally, Alternative Grove 1 would be anticipated to have greater impacts for two resource areas and lesser impact for one resource area. Specific differences between each Grove terminal alternative and the Proposed Project are explained below.

**Table 6-1: Impact Comparison for the Grove Terminal Alternatives**

| Alternative | Aesthetics | Agriculture | Air Quality | Biology | Cultural | Energy | Geology | GHG | Hazards | Hydrology | Land Use | Minerals | Noise | Population | Pub. Services | Recreation | Transportation | Tribal CR | Utilities | Wildfire |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alt. Grove 1 | G | L | S | G | U[1] | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S |
| Alt. Grove 2 | S | L | S | S | G | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S |
| Alt. Grove 3 | L | L | L | L | S | S | S | S | L | L | S | S | L | S | S | L | L | S | S | L |
| Alt. Grove 4 | L | L | L | L | U[1] | S | S | S | S | S | S | S | L | S | S | L | S | S | S | L |

Notes:
[1] Impacts are unknown for the Alternative Grove 1 and Alternative Grove 4 for cultural and historic resources because the site has not been surveyed or reviewed for recorded historic or pre-historic resources. However, it is not anticipated that significant unavoidable impacts to these resources would occur.

**Alternative Grove 1**

Alternative Grove 1, located approximately 0.5 mile south of the proposed Grove terminal site (refer to **Figure 4-1**), would have substantially similar impacts to the proposed Grove terminal for almost all of the California Environmental Quality Act (CEQA) resource areas and criteria. It would be anticipated to have greater impacts associated with aesthetic and biological resources and less impacts associated with agricultural resources. Similar to the proposed Grove terminal site, utilization of Alternative Grove 1 is not anticipated to result in significant unavoidable impacts. The impact comparisons for environmental resources that would increase or decrease with the implementation of Alternative Grove 1 are further explained below.

Aesthetic Resource Impacts
Alternative Grove 1 would be anticipated to have slightly greater aesthetic impacts due to its location. The site, located near the intersection of Bailey Avenue and Monterey Road, would be visible to a greater number of people when compared to the proposed Grove site. While a detailed analysis of the aesthetic impacts has not been completed, it is anticipated that the impacts would be less than significant and would include similar applicant proposed measures (APMs) as the proposed Grove site (refer to **Section 5.1.6**, *Applicant Proposed Measures*).

Agricultural Resource Impacts
The Alternative Grove 1 site is located on land designated as Farmland of Local Importance by the Farmland Mapping and Monitoring Program (FMMP), and it is designated for agricultural use by the City of San José General Plan. The site is surrounded by agricultural land uses and could potentially be used for agricultural uses in the future. Impacts to agricultural resources would be anticipated to be less than those of the proposed Grove terminal site because Farmland of Local Importance is a lower designation than the Prime Farmland at the proposed Grove terminal site, and because the site is not currently being utilized for agricultural purposes (whereas the proposed Grove terminal site is currently utilized for agricultural purposes).

Biological Resource Impacts
Alternative Grove 1 would be anticipated to have greater impacts to biological resources when compared to the proposed Grove terminal site. While both sites are disturbed and do not contain sensitive species habitat, both are located adjacent to such habitat (Coyote Creek corridor) and could have indirect impacts to wildlife. However, the Alternative Grove 1 site was identified to be an important wildlife movement corridor by Peninsula Open Space Trust (POST) and is the preliminarily proposed future location for a wildlife overpass. The potential severity of the impacts the proposed Grove terminal would have on wildlife movement and the potential wildlife overpass are not known at this time, but potential impacts to biological resources are considered to be greater for the Alternative Grove 1 site for this reason.

Transmission Line Impacts
Alternative Grove 1 would require the longest Metcalf to Grove 500 kV transmission line and the longest Grove to Skyline 320 kV DC transmission line of all of the alternative Grove terminal sites analyzed. This would result in greater impacts associated with the construction of the transmission lines, including resource areas such as air quality, greenhouse gas (GHG), noise, and transportation/traffic.

**Alternative Grove 2**

Alternative Grove 2, located immediately adjacent and southeast of the proposed Grove terminal (refer to **Figure 4-1**), would have substantially similar impacts to the proposed Grove terminal for almost all of the CEQA resource areas and criteria. It would be anticipated to have greater impacts associated with historic resources and lesser impacts associated with agricultural resources. All other impacts are anticipated to be substantially similar. As with the proposed Grove terminal site, utilization of Alternative Grove 2 is not anticipated to result in significant unavoidable impacts; however, the potential historic structure and trees have not been fully evaluated to determine appropriate mitigation. The impact comparisons are further explained below.

Agricultural Resource Impacts

The Alternative Grove 2 site is located on land designated as Farmland of Local Importance by the FMMP[1], and it is designated for agricultural use by the City of San José and Santa Clara County General Plans. It is also designated part of an agricultural preserve by the County of Santa Clara for the portion of the site located in the County. The site is surrounded by agricultural land uses and could potentially be used for agricultural uses in the future. Impacts to agricultural resources would be anticipated to be less than those of the proposed Grove terminal site because Farmland of Local Importance is a lower designation than the designated Prime Farmland at the proposed terminal site, and because the site is not currently being utilized for agricultural purposes. While impacts would be considered greater for the proposed Grove terminal site, impacts to agricultural resources would be considered to be less than significant for both sites.

Historic Resource Impacts

Alternative Grove 2 would be anticipated to have greater impacts to historic resources due to documented potentially historic resources located on the site. Specifically, the Alternative Grove 2 site includes one structure (house) as well as potentially multiple trees that are potentially historic resources. The house was originally built and owned by Jehial M. Owen, considered a Coyote Valley pioneer. Previous CEQA analysis (San José, 2007) listed the house and surrounding acre as potentially significant for architecture and association with Owen. The house is potentially the oldest remaining farmhouse in the area and one of very few remaining farmhouses from this period in Coyote Valley. Potential avenues of mitigation include full documentation of the historic resources or potential conservation and preservation of the resources. While it is anticipated that mitigation would be required, a final significance determination cannot be determined without additional analysis of the potential historic features at the site. Regardless, the presence of the potential historic structure and site on the Alternative Grove 2 site represents a greater potential impact to historic resources when compared to the proposed Grove terminal site.

Transmission Line Impacts

Alternative Grove 2 would require a slightly longer Metcalf to Grove 500 kV transmission line and a slightly longer Grove to Skyline 320 kV DC transmission line. This would result in slightly greater impacts associated with the construction of the transmission lines, including resource areas such air quality, GHG, noise, and transportation/traffic.

[1] Note that a portion of the Alternative Grove 2 site was previously designated as Prime Farmland as recently as 2018.

**Alternative Grove 3**

Alternative Grove 3 is located approximately 1.1 miles northwest of the proposed Grove terminal site on PG&E property directly northwest of the existing Metcalf substation, where proposed Staging Area 3 is located (refer to **Figure 4-1**). Alternative Grove 3 would have the greatest contrast in potential impacts when compared to the Proposed Project. Specifically, Alternative Grove 3 would be expected to have reduced impacts (both in number and severity) to aesthetics, agriculture, air quality, biological resources, hazards, hydrology and water quality, noise, recreation, transportation/traffic, and wildfire. Similar to the proposed Grove terminal site, utilization of Alternative Grove 3 is not anticipated to result in significant unavoidable impacts. The impact comparisons are further explained below.

Aesthetic Resource Impacts
Alternative Grove 3 would be located on PG&E property, immediately adjacent to (northwest of) the existing Metcalf substation modification area (refer to **Figure 4-1**). This area is currently developed and disturbed and is utilized by PG&E for parking and staging supporting the existing Metcalf substation and other PG&E operations. Impacts to aesthetics and visual resources are anticipated to be lesser at the Alternative Grove 3 site because of the existing disturbed nature of the area (i.e., the existing substation). Visually, construction of the Grove terminal at the Alternative Grove 3 site would appear as more of an expansion of the existing substation, rather than the development of a new facility. Placement of the HVDC terminal at this location would not substantially degrade existing views because such views are already dominated by the existing large substation facility.

Agricultural Resource Impacts
The Alternative Grove 3 site is currently utilized for parking, staging, and general support for the existing Metcalf substation and general PG&E operations. There are no agricultural resources at this location, and the land is not designated for agricultural use by the FMMP. However, the site is located in a County agricultural preserve area and is zoned for exclusive agriculture (refer to **Section 5.2**, *Agriculture and Forestry Resources* and **Figures 5.2-1**, *Agricultural Resources Map* and **5.2-2**, *FMMP-Designated Farmland Map*). No impacts would occur under Alternative Grove 3, which would be less than the impacts identified for the proposed Grove terminal site, which is located in land designated and utilized for agricultural purposes.

Air Quality Emissions Impacts
Construction of the Grove terminal at the Alternative Grove 3 location would result in similar project-level emissions of criteria pollutants. However, the Alternative Grove 3 site is not located in close proximity to sensitive receptors, which is contrasted by the proposed Grove terminal site. The Alternative Grove 3 is located approximately 1,500 feet from the nearest potential sensitive receptor (residential development to the west-northwest). As described in **Section 5.3**, *Air Quality*, and shown on **Figure 5.3-2**, *Grove Terminal Nearby Sensitive Receptor Locations*, the proposed Grove terminal site is located in much closer proximity to potentially sensitive receptors. While impacts associated with localized air quality, such as human health risk, are less than significant for the Proposed Project, such impacts under Alternative Grove 3 would be substantially lesser than for the proposed terminal site.

Biological Resource Impacts
Alternative Grove 3 would be located on developed PG&E property, where no biological resources are present. While the proposed Grove terminal site does not directly have biological resources present, the location of nearby habitat (i.e., Coyote Creek corridor) dictates the site could be used

by biological resources (individuals) for passage or foraging. The Alternative Grove 3 site is completely developed, disturbed, and fenced; it would not support biological resources and would result in no impacts to biological resources. LS Power has included 16 biological resource APMs, most of which would not be required at the Alternative Grove 3 location. While the proposed Grove terminal site would result in less-than-significant impacts, impacts from the construction of the terminal at the Alternative Grove 3 site would result in substantially less and lesser impacts to biological resources by comparison.

Noise Impacts

Alternative Grove 3 would be located on developed PG&E property, where existing similar land uses already exist, and sensitive receptors are not located nearby. Similar to the localized air quality impacts discussed above, this distance to sensitive receptors (approximately 1,500 feet) would reduce or eliminate potential noise impacts from the construction and operation of the terminal itself. While construction and operation at the proposed Grove terminal site would result in less-than-significant impacts, impacts from construction and operation of the terminal at the Alternative Grove 3 site would result in substantially less noise impacts to sensitive receptors.

Wildfire Impacts

Alternative Grove 3 would be located on a developed PG&E property lot that does not contain fuel for potential wildfires. While the potential impacts from, or relating to, wildfires are less than significant for the proposed Grove terminal, the potential for impacts would be less for the Alternative Grove 3 site.

Transmission Line Impacts

It is also important to note that if Alternative Grove 3 was constructed, the Metcalf to Grove 500 kV transmission line connection to the existing Metcalf substation would be substantially shortened (from over a mile to 100 feet or less) when compared to any of the other Grove terminal alternative sites. This would reduce or eliminate most of the potential adverse effects associated with the Metcalf to Grove 500 kV transmission line. Alternative Grove 3 would also reduce the length of the proposed Grove to Skyline 320 kV DC transmission line by over one mile. Key impacts that would be reduced or eliminated from the implementation of Alternative Grove 3 include impacts to air quality, biological resources, hazards, hydrology and water quality, noise, recreation, transportation, utilities, and wildfire.

**Alternative Grove 4**

Alternative Grove 4, located northwest of the proposed Grove terminal near the existing Metcalf Energy Center (refer to **Figure 4-1**), would be expected to have less and/or lesser impacts associated with aesthetic resources, agricultural resources, air quality, biological resources, noise, recreation and wildfire than the proposed Grove terminal. As with the proposed Grove terminal site, utilization of Alternative Grove 4 is not anticipated to result in significant unavoidable impacts. The impact comparisons are further explained below.

Aesthetic Resource Impacts

Alternative Grove 4 would be located on an existing storage lot and residence, adjacent to (south of) the Metcalf Energy Center (refer to **Figure 4-1**). This area is currently developed and disturbed and is utilized as a storage lot for recreational vehicles, boats, trucks, and other vehicles and as a residence. Impacts to aesthetics and visual resources are anticipated to be less at the Alternative Grove 4 site because of the existing disturbed nature of the area (i.e., the existing storage lot). Visually, construction of the Grove terminal at the Alternative Grove 4 site would

appear as more of an expansion of the Metcalf Energy Center, rather than the development of a new facility. Placement of the HVDC terminal at this location would not substantially degrade existing views because such views are already dominated by the existing Metcalf Energy Center.

Agricultural Resource Impacts

The Alternative Grove 4 site is currently utilized as a storage facility. There are no agricultural resources at this location, and the land is not designated for agricultural use by the FMMP. However, the site is designated in the San José General Plan as agriculture (refer to **Section 5.2** and **Figures 5.2-1** and **5.2-2**). No impacts would occur under Alternative Grove 4, which would be less than the impacts identified for the proposed Grove terminal site, which is located on land designated and utilized for agricultural purposes.

Air Quality Impacts

The Alternative Grove 4 site is currently utilized as a storage lot for recreational vehicles and the nearest receptor is located over 2,000 feet south, across Blanchard and Monterey Roads. As described in **Section 5.3**, and shown on **Figure 5.3-2**, the proposed Grove terminal site is located in much closer proximity to potentially sensitive receptors. While impacts associated with localized air quality, such as human health risk, are less than significant for the Proposed Project, such impacts under Alternative Grove 4 would be substantially less.

Biological Resource Impacts

Alternative Grove 4 would be located on a property that is mostly developed with a storage lot. There are existing trees along the western property boundary as well as the southeast corner. Fisher Creek is also located along the western boundary of the Alternative Grove 4 site. While the proposed Grove terminal site does not directly have biological resources present, the location of nearby habitat (i.e., Fisher Creek corridor) dictates the site could be used by biological resources (individuals) for passage or foraging. The Alternative Grove 4 site is mostly developed with a storage lot; and it would typically not support biological resources, with the exception of nesting birds, and would result in less potential for impacts to biological resources. LS Power has included 16 biological resource APMs for the Proposed Project, most of which would not be required at the Alternative Grove 4 location. While the proposed Grove terminal site would result in less-than-significant impacts to biological resources, impacts from the construction of the terminal at the Alternative Grove 4 site would result in substantially less and lesser impacts to biological resources.

Noise Impacts

Alternative Grove 4 would be located on a property that is mostly developed with a storage lot, where existing similar land uses already exist, and the nearest sensitive receptor is a residence located over 2,000 feet to the south across Blanchard and Monterey Roads. Similar to the localized air quality impacts discussed above, this distance to sensitive receptors would reduce or eliminate potential noise impacts from the construction and operation of the terminal itself. While construction and operation at the proposed Grove terminal site would result in less-than-significant impacts, impacts from construction and operation of the terminal at the Alternative Grove 4 site would result in substantially less noise impacts to sensitive receptors.

Wildfire Impacts

Alternative Grove 4 would be located on a property that is mostly developed with a storage lot and does not contain fuel for potential wildfires. While the potential impacts from, or relating to, wildfires are less than significant for the proposed Grove terminal, the potential for impacts would be less for the Alternative Grove 4 site.

Transmission Line Impacts

If Alternative Grove 4 was constructed, the proposed Metcalf to Grove 500 kV transmission line connection to the existing Metcalf substation would be shortened (from approximately 1.2 miles to 0.6 mile) when compared to the proposed Grove terminal site. This would reduce or eliminate some of the potential adverse effects associated with the Metcalf to Grove 500 kV transmission line. However, in order to cross the existing railroad tracks and Coyote Creek, additional trenchless crossings would be required. An approximately 1,000-foot HDD would be constructed under the railroad, Monterey Road, and Coyote Creek. Alternative Grove 4 would also reduce the length of the proposed Grove to Skyline 320 kV DC transmission line by approximately 0.5 mile. However, the proposed Grove to Skyline 320 kV DC transmission line would require an additional trenchless crossing of the existing railroad tracks in a restricted area. Key impacts that would be reduced or eliminated from the implementation of Alternative Grove 4 include impacts to agriculture, air quality, biological resources, noise, recreation, and utilities.

#### 6.1.1.2 Skyline Terminal Site Alternatives

As discussed in **Section 4.1.2**, *Skyline Terminal Site Alternatives* and shown on **Figure 4-2**, *Skyline Terminal Alternative Sites Map*, the following two alternative sites were considered for the Skyline terminal site:

- Alternative Skyline 1
- Alternative Skyline 2

**Table 6-2**, *Impact Comparison for the Skyline Terminal Alternatives* compares the anticipated impacts for each Skyline terminal alternative to those of the proposed Skyline terminal site using the descriptor system explained above. As shown in **Table 6-2**, impacts directly from development of the terminal site are substantially similar. However, due to the location of the alternative sites in comparison to the existing San Jose B substation, implementation of either Skyline alterative terminal site would have greater impacts overall. This is mainly because both Skyline alternatives require a much longer Skyline to San Jose B 115 kV AC station tie line. Specific differences between each Skyline terminal alternative and the Proposed Project are explained below.

**Table 6-2: Impact Comparison for the Skyline Terminal Alternatives**

| Alternative | Aesthetics | Agriculture | Air Quality[2] | Biology | Cultural | Energy | Geology | GHG | Hazards | Hydrology | Land Use | Minerals | Noise[2] | Population | Pub. Services | Recreation | Transportation | Tribal CR | Utilities[2] | Wildfire |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alt. Skyline 1 | S | S | S | S | U[1] | S | S | S | S | S | G | S | G | S | S | G | S | U[1] | S | S |
| Alt. Skyline 2 | S | S | S | S | U[1] | S | S | S | S | S | G | S | S | S | S | S | S | U[1] | S | S |

Notes:
[1] Impacts are unknown for the Alternative Skyline sites for cultural, tribal, and historic resources because the sites have not been surveyed or reviewed for recorded historic, pre-historic, or tribal cultural resources.
[2] While construction and operation of the terminal itself at the alternative location would be similar to those of the proposed Skyline terminal site, the requirement for a longer 115 kV interconnection station tie line through downtown San José would result in more and greater impacts to these resource areas.

**Alternative Skyline 1**

Alternative Skyline 1, located approximately 0.5 mile south of the proposed Skyline terminal site (refer to **Figure 4-2**), would have similar impacts to the proposed Skyline terminal for almost all of the CEQA resource areas and criteria. However, due to its location relative to the existing San Jose B substation, Alternative Skyline 1 would result in increases in impacts associated with the construction of the longer transmission line connection to the existing San Jose B substation, as further discussed below. Similar to the proposed Skyline terminal site, utilization of Alternative Skyline 1 is not anticipated to result in significant unavoidable impacts. Finally, the Alternative Skyline 1 site is part of the planned development of Google's Downtown West development, and, as such, the availability of the site for potential use by the Proposed Project is not known. Furthermore, the City of San José has requested that the required HVDC terminal and existing substation expansion not be sited in a manner that would conflict with the planned Downtown West development. The impact comparisons are further explained below.

Land Use Impacts

The City of San José has expressed that, while it supports the Proposed Project, it does have a number of important interests with respect to the siting of the Proposed Project features. Specifically, the City is currently processing key development and infrastructure projects located at the Skyline Alternative 1 site. The City has provided guidance that Proposed Project features, including the Skyline terminal and expanded San Jose B substation, not interfere with the reconstruction of the Diridon Rail Station or the Downtown West development. The Skyline Alternative 1 site is located within the planned boundaries of the Downtown West development, whereas the proposed Skyline terminal location is not. Therefore, Skyline Alternative 1 would have greater impacts on land use when compared to the Proposed Project.

Noise and Vibration Impacts

Alternative Skyline 1 would be located immediately adjacent to the historic San Jose Water Company building located at 374 West Santa Clara Street. As described in **Section 5.13**, *Noise*, construction activities located within 25 feet of historic or otherwise vibration-sensitive structures can potentially damage said structures and would exceed local significance thresholds utilized by the City of San José. Construction of the proposed Skyline terminal and transmission lines in close proximity to the historic building would represent a potentially significant impact. While such impacts have not been studied, it is likely that these impacts could be reduced to a less-than-significant level by utilizing a measure similar to **APM NOI-1**,*Vibration Monitoring and Construction Contingency Plan*. However, this would represent a new impact that the proposed Skyline terminal site would not include. Therefore, impacts related to vibration would be greater for Alternative Skyline 1 when compared to the proposed location.

Recreation Impacts

Alternative Skyline 1 would be anticipated to have slightly greater impacts relating to recreational facility access. The Alternative Skyline 1 site is currently a parking lot that is used to support the SAP Center, which hosts numerous events including professional hockey games, concerts, and shows. The lost parking would need to be replaced in some manner, including the potential creation of new event parking that could lead to significant environmental impacts. This issue has not been studied; however, it is likely the impacts would be less than significant. However, the proposed Skyline terminal site does not have any similar impacts; therefore, Alternative Skyline 1 would be considered to have greater impacts in this regard when compared to the proposed Skyline site.

Station Tie Line Impacts
Alternative Skyline 1 would require the construction and operation of a substantially longer Skyline to San Jose B 115 kV AC station tie line between the proposed Skyline terminal and the existing San Jose B substation. Under the Proposed Project, the Skyline to San Jose B 115 kV AC station tie line would be approximately 100 feet long, leaving the Skyline terminal overhead and immediately entering the existing San Jose B substation. Under Alternative Skyline 1, the new Skyline to San Jose B 115 kV underground station tie line would be at least approximately 0.7 mile in length but could be longer depending upon final routing constraints. To partially offset the longer Skyline to San Jose B 115 kV station tie line, the Grove to Skyline 320 kV DC transmission line length would be reduced by approximately 0.5 mile. However, Alternative Skyline 1 would also require two additional transmission line crossings of the Guadalupe River and Guadalupe River Park and Trail. The overall longer transmission lines would result in additional construction impacts relating to air quality, hydrology, recreation, traffic/transportation, noise and vibration, and utilities.

**Alternative Skyline 2**

Alternative Skyline 2, located approximately 0.8 mile south of the proposed Skyline terminal site (refer to **Figure 4-2**), would have substantially similar impacts to the proposed Skyline terminal for all of the CEQA resource areas and criteria, except land use. However, due to its location relative to the existing San Jose B substation, Alternative Skyline 2 would result in increases in impacts associated with the construction of a longer Skyline to San Jose B 115 kV AC station tie line connection to the existing San Jose B substation, as further discussed below. Similar to the proposed Skyline terminal site, utilization of Alternative Skyline 2 is not anticipated to result in significant unavoidable impacts. Finally, the Alternative Skyline 2 site is part of the planned development of Google's Downtown West campus, immediately adjacent to the Diridon Rail Station (refer to **Figure 4-2**). As such, the availability of the site for potential use by the Proposed Project is not known. Furthermore, the City of San José has requested that the required HVDC terminal and existing substation expansion not be sited in a manner that would conflict with the planned Downtown West development or reconstruction of the Diridon Rail Station. The impact comparisons are further explained below.

Land Use Impacts
The City of San José has expressed that, while it supports the Proposed Project, it does have a number of important interests with respect to the siting of the Proposed Project features. Specifically, the City is currently processing key development and infrastructure projects located at the Skyline Alternative 2 site. The City has provided requested that Proposed Project features, including the Skyline terminal and expanded San Jose B substation, not interfere with the reconstruction of the Diridon Rail Station or the Downtown West development. The Skyline Alternative 2 site is located within the planned boundaries of the Downtown West development, immediately adjacent to the Diridon Rail Station. Conversely, the proposed Skyline terminal location is not located on or near either, and is not anticipated to result in any conflicts. Therefore, Skyline Alternative 2 would have greater impacts on land use when compared to the Proposed Project.

Station Tie Line Impacts
Alternative Skyline 2 would require the construction and operation of a substantially longer Skyline to San Jose B 115 kV AC station tie line between the proposed Skyline terminal and the existing San Jose B substation. Under the Proposed Project, the Skyline to San Jose B 115 kV AC station tie line would be approximately 100 feet long, leaving the Skyline terminal overhead and

immediately entering the existing San Jose B substation. Under Alternative Skyline 2, the new Skyline to San Jose B 115 kV underground station tie line would be at least approximately one mile in length but could be longer depending upon final routing constraints. To partially offset the longer Skyline to San Jose B 115 kV station tie line, the Grove to Skyline 320 kV DC transmission line length would be reduced by approximately 0.25 mile. However, Alternative Skyline 2 would also require two additional transmission line crossings of the Guadalupe River and Guadalupe River Park and Trail. The overall longer transmission lines would result in additional construction impacts relating to air quality, hydrology, recreation, transportation/traffic, noise and vibration, and utilities.

### 6.1.2 COMPARISON OF GROVE TO SKYLINE 320 KV DC TRANSMISSION LINE ALTERNATIVES

As discussed in **Section 4.1.3**, *Grove to Skyline 320 kV DC Transmission Line Route Alternatives* and shown on **Figure 4-4**, *Grove to Skyline 320 kV DC Transmission Line Alternatives Map*, two southern segment alternatives and one northern segment alternative were considered. Four downtown San José alternative segments were also considered. **Table 6-3**, *Impact Comparison for the Grove to Skyline Transmission Line Alternatives* compares the anticipated impacts for each Grove to Skyline 320 kV DC transmission line alternative to those of the proposed Grove to Skyline transmission line using the descriptor system explained above. As shown in **Table 6-3** and the following subsections, all alternatives would have greater impacts than the Proposed Project, and none would reduce any impacts when compared to the proposed transmission line. Specific differences between each alternative and the Proposed Project are explained below.

**Table 6-3: Impact Comparison for the Grove to Skyline Transmission Line Alternatives**

| Alternative | Aesthetics | Agriculture | Air Quality | Biology | Cultural | Energy | Geology | GHG | Hazards | Hydrology | Land Use | Minerals | Noise | Population | Pub. Services | Recreation | Transportation | Tribal CR | Utilities | Wildfire |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Southern Segment Alternative 1 | G | S | S[1] | G | U[2] | S | G | S[1] | G | S | S | S | S | S | S | G | L | U[2] | L | G |
| Southern Segment Alternative 2 | G | S | S[1] | G | U[2] | S | G | S[1] | G | S | S | S | S | S | S | G | L | U[2] | L | G |
| Northern Segment Alternative 1 | G | S | S[1] | G | U[2] | S | G | S[1] | G | S | S | S | S | S | S | G | L | U[2] | L | G |
| Downtown San José Alternatives | S | S | S | S | U[2] | S | S | S | S | S | S | S | S | S | S | S | S | U[2] | U[3] | S |

Notes:
[1] Impacts to air quality could be substantially less for overhead construction, depending upon the final design and amount of ancillary construction required to support the overhead transmission line, such as creation of new access roads, new construction pads, new O&M pads, retaining walls, as well as required grading. In addition, some overhead transmission line construction equipment has higher emissions, such as helicopters.
[2] Impacts are unknown for the Grove to Skyline 320 kV DC Transmission Line Alternatives for cultural, tribal, and historic resources because the alternative routes have not been fully surveyed or reviewed for recorded historic, pre-historic, or tribal cultural resources.
[3] Utility impacts are unknown for the Downtown San José Transmission Line Alternatives because the alternative routes have not been fully surveyed for underground utilities.

**Southern Segment Alternative 1**

Southern Segment Alternative 1 would include an approximately six-mile overhead segment that would leave the proposed Grove terminal site southeast and then head northwest, roughly paralleling existing PG&E transmission lines and U.S. Route 101. The route would then transition underground near Coyote Road for approximately two miles before connecting with the Proposed Project at the intersection of Senter Road and Monterey Road (refer to **Figure 4-4**). The two routes would be identical from that point until reaching the proposed Skyline terminal. Therefore, impact comparisons between the two are focused on the approximately eight-mile portion of the routes between the proposed Grove terminal and the intersection of Senter Road and Monterey Road. As further explained below, the Southern Segment Alternative 1 route would have greater impacts to aesthetic resources, biological resources, geologic hazards, hazards and wildfire, and recreation when compared to the Proposed Project.

Aesthetic Resource Impacts
Southern Segment Alternative 1 would include approximately six miles of new overhead 320 kV DC transmission line located in undeveloped lands located between U.S. Route 101 to the west and the Diablo Mountains to the east. Conversely, the Proposed Project alignment would be installed entirely underground within Monterey Road. The overhead portion of Southern Segment Alternative 1 would be visible from U.S. Route 101, Silver Creek Valley Road, Hellyer Avenue, Coyote Creek Trail, Coyote Road, and multiple residential and commercial developments. The presence of existing PG&E transmission lines along the route would reduce the visual contrast of the new transmission line, and impacts would be anticipated to be less than significant. Similar to the Proposed Project, the underground portion of the Southern Segment Alternative 1 is not anticipated to result in any significant unavoidable impacts to aesthetic resources. However, impacts resulting from the Southern Segment Alternative 1 would represent an increase in aesthetic impacts when compared to the Proposed Project.

Biological Resource Impacts
The approximately six-mile overhead portion of the Southern Segment Alternative 1 route would be located in undeveloped areas along the foot of the Diablo Mountains. Based on a preliminary desktop review, these areas would be dominated by annual grasslands, with patches of hardwood woodland (refer to **Section 5.4**, *Biological Resources* for a detailed description of these vegetation types). However, additional habitat types and vegetation communities may also exist along the alternative route. Based on results from the California Natural Diversity Database (CNDDB) records search, species observations along or adjacent to the Southern Segment Alternative 1 include bay checkerspot butterfly, California tiger salamander, foothill yellow-legged frog, California red-legged frog, San Joaquin kit fox, Metcalf Canyon jewelflower, and Santa Clara Valley dudleya. The Southern Segment Alternative 1 alignment passes through bay checkerspot butterfly critical habitat. This alignment would also pass through existing and potential future conservation easements.

In comparison to the Proposed Project Grove to Skyline 320 kV DC transmission line alignment, Southern Segment Alternative 1 would result in a greater potential for adverse effects on biological resources, as the construction and operation of Southern Segment Alternative 1 would require new access roads, new transmission structures (steel monopoles or lattice), and new work pads. These features would all require temporary and permanent removal of natural habitat areas and could impact the species and habitats listed above, as well as create potential conflicts with conservation easements and designated critical habitat. Therefore, the Southern Segment

Alternative 1 would result in greater impacts to biological resources than the Proposed Project Grove to Skyline 320 kV DC transmission line alignment.

Geologic Hazards Impacts

The Southern Segment Alternative 1 would include approximately six miles of new overhead transmission line through undeveloped areas at the foot of the Diablo Mountains. The new access roads and overhead transmission line support structures required for this alternative would be located in undisturbed areas along foothills that slope down towards U.S. Route 101 to the west. These areas would have a higher potential to be affected by geologic hazards, including landslides and erosion. While it is anticipated that potential impacts from geologic hazards along the overhead portion of this alternative could be mitigated in a manner similar to the Proposed Project (refer to **APM GEO-1**, *Geotechnical Studies and Geologic Hazard Reduction Measures*), these potential impacts would be greater for the Southern Segment Alternative 1 than for the Proposed Project alignment because the Proposed Project alignment would be installed underground within existing paved roadways.

Hazards and Wildfire Impacts

The Southern Segment Alternative 1 would include approximately six miles of new overhead transmission line which would be partially located within State Responsibility Areas (SRAs) for fire response, including areas designated in the 2007 and 2024 High Fire Hazard Severity Zone (FHSZ) from the California Department of Forestry and Fire Protection ("CAL FIRE"). The alignment would not be located within a CPUC designated High Fire Threat District (HFTD), although it would be located as close as approximately 1,200 feet to a CPUC designated Tier 2 HFTD. Construction of new overhead transmission lines within SRAs and designated high fire threat areas (either FHSZ or HFTD) would result in potentially significant impacts related to wildfire. In addition, the Southern Segment Alternative 1 alignment would be located along/near a wildland urban interface (WUI), as the existing development within the City of San José is located immediately west of the Alternative 1 alignment. This would position the overhead transmission line located between designated areas of high fire threat and areas of high value and high risk from wildfire. While it is anticipated that these impacts could be mitigated to a less-than-significant level through design standards and implementation of Construction and Operations Wildfire Mitigation Plans, the potential wildfire impacts for Southern Segment Alternative 1 would be greater than those of the Proposed Project transmission line alignment, which would be installed underground within paved roads in areas that are local responsibility areas (LRAs) not designated as having high fire threat or risk by CAL FIRE or the CPUC.

Recreational Resource Impacts

The Southern Segment Alternative 1 would include new overhead transmission lines that would pass through existing County park lands. The proposed alignment, which would be installed underground within paved streets, would not result in the same or similar impacts to County or other parks. While these impacts to existing recreational resources are not anticipated to be significant, the Southern Segment Alternative 1 would nonetheless have more and greater impacts on recreational resources when compared to the Proposed Project.

Transportation Impacts

Southern Segment Alternative 1 would include a large section of new overhead transmission line whereas the Proposed Project alignment would be located underground within paved streets. While the overhead transmission line would result in greater impacts to other resource areas when compared to the underground transmission lines, it would reduce overall impacts relating to traffic. This is because the Southern Segment Alternative 1 would result in substantially less construction

within public roadways, and roadway impacts due to lane closures and traffic control would be reduced. Therefore, the Southern Segment Alternative 1 would be anticipated to have less impacts to traffic and transportation when compared to the Proposed Project.

Impacts to Utilities

Similar to the impacts relating to traffic and transportation, Southern Segment Alternative 1 would represent a reduction in potential impacts to existing buried utilities because of the substantially shorter underground segment. Most of the potential utility conflicts would occur where new underground transmission lines would be installed in existing roadways and streets. Therefore, the Southern Segment Alternative 1 would be expected to result in less impacts to existing utilities.

**Southern Segment Alternative 2**

Southern Segment Alternative 2 would include an approximately 8.4-mile overhead segment that would leave the proposed Grove terminal site southeast and then head northwest, roughly paralleling existing PG&E transmission lines and U.S. Route 101. The first approximately six miles of Southern Segment Alternative 2 would follow the same route as Southern Segment Alternative 1. However, it would continue overhead northwest for approximately 2.3 miles until reaching East Capitol Expressway (refer to **Figure 4-4**). The route would then transition underground at East Capitol Expressway before continuing underground for approximately 4.6 miles, within paved streets, until reaching the intersection of East Reed Street and First Street (refer to **Figure 4-4**). At this point Southern Segment Alternative 2 would connect with one of the Downtown San José Alternative routes discussed below. The Southern Segment Alternative 2 route does not share any common segments with the Proposed Project Grove to Skyline 320 kV DC transmission line route; therefore, this section includes a full comparison between the two. As further explained below, the Southern Segment Alternative 2 route would have greater impacts to aesthetic resources, biological resources, geologic hazards, hazards and wildfire, and recreational resources when compared to the Proposed Project.

Aesthetic Resource Impacts

Southern Segment Alternative 2 would include approximately 8.4 miles of new overhead 320 kV DC transmission line located in undeveloped lands located generally between U.S. Route 101 to the west and the Diablo Mountains to the east. As Southern Segment Alternative 2 moves further north, existing development is present on both sides (east and west) of the alignment. For the final approximately 2.3 miles of the overhead portion of the alignment, the existing PG&E transmission lines are no longer present. This would increase the visual contrast of the new Grove to Skyline 320 kV DC transmission line, increasing aesthetic impacts. The overhead segment of the transmission line would utilize either steel monopole or lattice structures to support the conductors. Conversely, the Proposed Project alignment would be installed entirely underground within Monterey Road and other paved roads. The overhead portion of Southern Segment Alternative 2 would be visible from U.S. Route 101, Silver Creek Valley Road, Hellyer Avenue, Coyote Creek Trail, Coyote Road, Yerba Buena Road, Singleton Road, and multiple residential and commercial developments. The presence of existing PG&E transmission lines along most of the overhead portion of the route would reduce the visual contrast of the new transmission line; however, impacts would be more severe for the final approximately 2.3 miles of overhead alignment where the new transmission line would represent the only overhead line within the viewshed. Similar to the Proposed Project, the underground portion of Southern Segment Alternative 2 is not anticipated to result in any impacts to aesthetic resources. Although a detailed analysis of aesthetic impacts for the overhead portion of Southern Segment Alternative 2 has not been conducted, it is anticipated that impacts would be less than significant. However, Southern

Segment Alternative 2 would have greater impacts than Southern Segment Alternative 1 and the Proposed Project alignment with respect to aesthetic and visual resources.

Biological Resource Impacts

The approximately 8.4-mile overhead portion of the Southern Segment Alternative 2 route would be located in undeveloped areas along the foot of the Diablo Mountains and along Coyote Creek. Based on a preliminary desktop review, these areas would be dominated by annual grasslands, with patches of hardwood woodland (refer to **Section 5.4** for a detailed description of these vegetation types). However, additional habitat types and vegetation communities may also exist along the alternative route. Based on results from the CNDDB records search, species observations along or adjacent to the Southern Segment Alternative 2 include bay checkerspot butterfly, California tiger salamander, foothill yellow-legged frog, California red-legged frog, San Joaquin kit fox, Metcalf Canyon jewelflower, and Santa Clara Valley dudleya. The Southern Segment Alternative 2 alignment passes through bay checkerspot butterfly critical habitat. This alignment would pass through existing and potential future conservation easements.

In comparison to the Proposed Project Grove to Skyline 320 kV DC transmission line alignment, Southern Segment Alternative 2 would result in a greater potential for adverse effects on biological resources, as the construction and operation of Southern Segment Alternative 2 would require new access roads, new transmission structures (steel monopoles or lattice), and new work pads. These features would all require temporary and permanent removal of natural habitat areas and could impact the species and habitats listed above, as well as create potential conflicts with conservation easements and designated critical habitat. Therefore, the Southern Segment Alternative 2 would result in greater impacts to biological resources than the Proposed Project Grove to Skyline 320 kV DC transmission line alignment. Southern Segment Alternative 2 would also have greater impacts to biological resources than Southern Segment Alternative 1 due to the longer overhead alignment, which would increase the total temporary and permanent impacts to natural areas and habitat.

Geologic Hazards Impacts

The Southern Segment Alternative 2 would include approximately 8.4 miles of new overhead transmission line through undeveloped areas along the foot of the Diablo Mountains. The new access roads and overhead transmission line support structures required for this alternative would be located in undisturbed areas along foothills that slope down towards U.S. Route 101 and other developed areas. These areas would have a higher potential to be affected by geologic hazards, including landslides and erosion, when compared to the Proposed Project Grove to Skyline 320 kV DC transmission line, which would be located entirely underground within paved streets. While it is anticipated that potential impacts from geologic hazards along the overhead portion of this alternative could be mitigated in a manner similar to the Proposed Project (refer to **APM GEO-1**), these potential impacts would be greater for Southern Segment Alternative 2 than for the Proposed Project alignment because the Proposed Project alignment would be installed underground within existing paved roadways. Impacts resulting from Southern Segment Alternative 2 would be similar to those of Southern Segment Alternative 1 but would be slightly greater due to the longer length of overhead line and the associated increase in structures, access roads, and work areas.

Hazards and Wildfire Impacts

The Southern Segment Alternative 2 would include approximately 8.4 miles of new overhead transmission line which would be partially located within SRAs for fire response, including areas designated in the 2007 and 2024 High FHSZs from CAL FIRE. The alignment would not be

located within a CPUC-designated HFTD, although it would be located as close as approximately 1,200 feet to a CPUC-designated Tier 2 HFTD. Construction of new overhead transmission lines within SRAs and designated high fire threat areas (either FHSZ or HFTD) would result in potentially significant impacts related to wildfire. In addition, the Southern Segment Alternative 2 alignment would be located along/near a WUI, as the existing development within the City of San José is located immediately west and east (within some areas) of the Southern Segment Alternative 2 alignment. This would position the overhead transmission line located between and within designated areas of high fire threat and areas of high value and high risk from wildfire (i.e., residential and commercial development). While it is anticipated that these impacts could be mitigated to a less-than-significant level through design standards and implementation of Construction and Operations Wildfire Mitigation Plans, the potential wildfire impacts for Southern Segment Alternative 2 would be greater than those of the Proposed Project transmission line alignment, which would be installed underground within paved roads in areas that are LRAs not designated as having high fire threat or risk by CAL FIRE or the CPUC.

Recreational Resource Impacts

The Southern Segment Alternative 2 would include new overhead transmission lines that would pass through existing County park lands. The proposed alignment, which would be installed underground within paved streets, would not result in the same or similar impacts to County or other parks. While these impacts to existing recreational resources are not anticipated to be significant, the Southern Segment Alternative 2 would nonetheless have greater impacts on recreational resources when compared to the Proposed Project.

Transportation Impacts

Southern Segment Alternative 2 would include a large section of new overhead transmission line whereas the Proposed Project alignment would be located underground within paved streets. While the overhead transmission line would result in greater impacts when compared to the underground transmission lines, it would reduce overall impacts relating to traffic. This is because the Southern Segment Alternative 2 would result in substantially less construction within public roadways and, as such, less impacts to said roadways. Therefore, the Southern Segment Alternative 2 would be anticipated to have less impacts to traffic and transportation when compared to the Proposed Project.

Impacts to Utilities

Similar to the impacts relating to traffic and transportation, Southern Segment Alternative 2 would represent a reduction in potential impacts to existing buried utilities because of the substantially shorter underground segment. Most of the potential utility conflicts would occur where new underground transmission lines would be installed in existing roadways and streets. Therefore, the Southern Segment Alternative 2 would be expected to result in less impacts to existing utilities.

**Northern Segment Alternative 1**

Northern Segment Alternative 1 would include an approximately 9.75-mile overhead segment that would leave the proposed Grove terminal site southeast and then head northwest, roughly paralleling existing PG&E transmission lines and U.S. Route 101. The first approximately six miles of Northern Segment Alternative 1 would follow the exact route as Southern Segment Alternative 1 and 2. The next 2.3 miles of overhead alignment would mirror Southern Segment Alternative 2, and the final 1.3 miles would extend beyond East Capitol Expressway, continuing through Los Lagos Golf Course, adjacent to Coyote Creek, until transitioning underground at Tully Road (refer to **Figure 4-4**). After transitioning underground, the route would remain underground within paved

roadways for approximately 5.1 miles until reaching the proposed Skyline terminal (refer to **Figure 4-4**). The Northern Segment Alternative 1 route does not share any common segments with the Proposed Project Grove to Skyline 320 kV DC transmission line route; therefore, this section includes a full comparison between the two. As further explained below, the Northern Segment Alternative 1 route would have greater impacts to aesthetic resources, biological resources, geologic hazards, hazards and wildfire, and recreational resources when compared to the Proposed Project.

Aesthetic Resource Impacts

Northern Segment Alternative 1 would include approximately 9.75 miles of new overhead 320 kV DC transmission line located in mostly undeveloped lands located generally between U.S. Route 101 to the west and the Diablo Mountains to the east. As Northern Segment Alternative 1 moves further north, existing development is present on both sides (east and west) of the alignment. For the final approximately 3.6 miles of the overhead portion of the alignment, the existing PG&E transmission lines are no longer present. This would increase the visual contrast and severity of impacts of the new 320 kV DC transmission line. The overhead segment of the transmission line would utilize either steel monopole or lattice structures to support the conductors. Conversely, the Proposed Project alignment would be installed entirely underground within Monterey Road and other paved roads. The overhead portion of Northern Segment Alternative 1 would be visible from U.S. Route 101, Silver Creek Valley Road, Hellyer Avenue, Coyote Creek Trail, Coyote Road, Yerba Buena Road, Singleton Road, East Capitol Road, the Los Lagos Golf Course, multiple parks, and numerous residential and commercial developments. The presence of existing PG&E transmission lines along most of the overhead portion of the route would reduce the visual contrast of the new transmission line; however, impacts would be more severe for the final 3.6 miles of overhead alignment where the new transmission line would represent the only overhead line within the viewshed. Similar to the Proposed Project, the underground portion of Northern Segment Alternative 1 is not anticipated to result in any impacts to aesthetic resources. Although a detailed analysis of aesthetic impacts for the overhead portion of Northern Segment Alternative 1 has not been conducted, it is anticipated that impacts would be less than significant. However, Northern Segment Alternative 1 would have greater impacts than both Southern Segment Alternatives and the Proposed Project alignment with respect to aesthetic and visual resources.

Biological Resource Impacts

The approximately 9.75-mile overhead portion of the Northern Segment Alternative 1 route would be located in mostly undeveloped areas along the foot of the Diablo Mountains but would also occur along Coyote Creek, adjacent to existing residential, recreational, and commercial development. Based on preliminary desktop review, these areas would be dominated by annual grasslands, with patches of hardwood woodland and riparian habitat (refer to **Section 5.4** for a detailed description of these vegetation types). However, additional habitat types and vegetation communities may also exist along the alternative route. Based on results from the CNDDB records search, species observations along or adjacent to the Northern Segment Alternative 1 route include bay checkerspot butterfly, California tiger salamander, foothill yellow-legged frog, California red-legged frog, San Joaquin kit fox, Metcalf Canyon jewelflower, and Santa Clara Valley dudleya. The Northern Segment Alternative 1 alignment passes through bay checkerspot butterfly critical habitat. This alignment would pass through existing and potential future conservation easements.

In comparison to the Proposed Project Grove to Skyline 320 kV DC transmission line alignment, Northern Segment Alternative 1 would result in a greater potential for adverse effects on biological resources, as construction and operation of Northern Segment Alternative 1 would require new

access roads, new transmission structures (steel monopoles or lattice), and new work pads. These features would all require temporary and permanent removal of natural habitat areas and could impact the species and habitats listed above, as well as create potential conflicts with conservation easements and designated critical habitat. In addition, the Northern Segment Alternative 1 alignment would have to cross Coyote Creek multiple times. Therefore, the Northern Segment Alternative 1 would result in greater impacts to biological resources than the Proposed Project Grove to Skyline 320 kV DC transmission line alignment. Northern Segment Alternative 1 would also have greater impacts to biological resources than either Southern Segment Alternative due to the longer overhead alignment, which would increase the total temporary and permanent impacts to natural areas and habitat.

Geologic Hazards Impacts

Northern Segment Alternative 1 would include approximately 9.75 miles of new overhead transmission line through mostly undeveloped areas along the foot of the Diablo Mountains. The new access roads and overhead transmission line support structures required for this alternative would be located in undisturbed areas along foothills that slope down towards U.S. Route 101 and other developed areas. These areas would have a higher potential to be affected by geologic hazards, including landslides and erosion, when compared to the Proposed Project Grove to Skyline 320 kV DC transmission line, which would be located entirely underground within paved streets. While it is anticipated that potential impacts from geologic hazards along the overhead portion of this alternative could be mitigated in a manner similar to the Proposed Project (refer to **APM GEO-1**), these potential impacts would be greater for Northern Segment Alternative 1 than for the Proposed Project alignment because the Proposed Project alignment would be installed underground within existing paved roadways. Impacts resulting from Northern Segment Alternative 1 would be similar to those of the Southern Segment Alternatives but would be slightly greater due to the longer length of overhead line and the associated increase in structures, access roads, and work areas.

Hazards and Wildfire Impacts

Northern Segment Alternative 1 would include approximately 9.75 miles of new overhead transmission line which would be partially located within SRAs for fire response, including areas designated in the 2007 and 2024 High FHSZs from CAL FIRE. The alignment would not be located within a CPUC designated HFTD, although it would be located as close as approximately 1,200 feet to a CPUC designated Tier 2 HFTD. Construction of new overhead transmission lines within SRAs and designated high fire threat areas (either FHSZ or HFTD) would result in potentially significant impacts related to wildfire. In addition, the Northern Segment Alternative 1 alignment would be located along/near a WUI, as the existing development within the City of San José is located immediately west and east (within some areas) of the Northern Segment Alternative 1 alignment. This would position the overhead transmission line located between and within designated areas of high fire threat and areas of high value and high risk from wildfire (i.e., residential and commercial development). While it is anticipated that these impacts could be mitigated to a less-than-significant level through design standards and implementation of Construction and Operations Wildfire Mitigation Plans, the potential wildfire impacts for Northern Segment Alternative 1 would be greater than those of the Proposed Project transmission line alignment, which would be installed underground within paved roads in areas that are LRAs not designated as having high fire threat or risk by CAL FIRE or the CPUC. Similar to the Proposed Project transmission line alignment, the underground portion of the Northern Segment Alternative 1 route would not be anticipated to create impacts relating to wildfire.

Recreational Resource Impacts
The Northern Segment Alternative 1 would include new overhead transmission lines that would pass through existing County park lands. The proposed alignment, which would be installed underground within paved streets, would not result in the same or similar impacts to County or other parks. While these impacts to existing recreational resources is not anticipated to be significant, the Northern Segment Alternative 1 would nonetheless have greater impacts on recreational resources when compared to the Proposed Project.

Transportation Impacts
Northern Segment Alternative 1 would include a large section of new overhead transmission line whereas the Proposed Project alignment would be located underground within paved streets. While the overhead transmission line would result in greater impacts overall when compared to the underground transmission lines, it would reduce impacts relating to traffic. This is because the Northern Segment Alternative 1 would result in substantially less construction within public roadways and, as such, less impacts to said roadways. Therefore, the Northern Segment Alternative 1 would be anticipated to have less impacts to traffic and transportation when compared to the Proposed Project.

Impacts to Utilities
Similar to the impacts relating to traffic and transportation, Northern Segment Alternative 1 would represent a reduction in potential impacts to existing buried utilities because of the substantially shorter underground segment. Most of the potential utility conflicts would occur where new underground transmission lines would be installed in existing roadways and streets. Therefore, the Northern Segment Alternative 1 would be expected to result in less impacts to existing utilities.

**Downtown San José Alternatives**

The Downtown San José area is characterized by numerous roadways, parks, businesses, hotels, residential areas, historical areas and proposed developments. Existing utilities encumber a large portion of the streets in the downtown San José area. Detailed utility surveys may ultimately determine that it is not feasible to route the Grove to Skyline 320 kV DC transmission line in some streets in downtown San José. Hence, LS Power considered a number of routing alternatives for the Grove to Skyline 320 kV DC transmission line from the Interstate (I)-280 underpass for First Street to the proposed Skyline terminal. As discussed in **Section 4.0**, four specific downtown alternatives were considered in the PEA. Due to the similarities between routes and surrounding environments, the four routes would be analyzed as one downtown San José alternative for purposes of this analysis. All four routes would be completely underground and would range from approximately 1.5 to 1.7 miles in length. Development of the Downtown San José Alternatives is not anticipated to result in significant unavoidable impacts. In comparison to the Proposed Project Grove to Skyline 320 kV DC transmission line alignment, the Downtown San José Alternatives would result in similar impacts to all resource areas.

### 6.1.3 COMPARISON OF METCALF TO GROVE 500 KV AC TRANSMISSION LINE ALTERNATIVES

As discussed in **Section 4.1.4**, *Metcalf to Grove 500 kV AC Transmission Line Route Alternatives* and shown on **Figure 4-5**, *Metcalf to Grove 500 kV AC Transmission Line Alternatives Map,* five total alternative routes were considered. **Table 6-4**, *Impact Comparison for the Metcalf to Grove Transmission Line Alternatives* compares the anticipated impacts for each Metcalf to Grove 500 kV transmission line alternative to those of the proposed Metcalf to Grove transmission line using the descriptor system explained above. As shown in **Table 6-4** and the following subsections,

some of the alternatives would have greater impacts than the Proposed Project and some would have less impacts when compared to the proposed transmission line. Specific differences between each alternative and the Proposed Project are explained below.

**Table 6-4: Impact Comparison for the Metcalf to Grove Transmission Line Alternatives**

| Alternative | Aesthetics | Agriculture | Air Quality | Biology | Cultural | Energy | Geology | GHG | Hazards | Hydrology | Land Use | Minerals | Noise | Population | Pub. Services | Recreation | Transportation | Tribal CR | Utilities | Wildfire |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alternative 1 | S | S | S | G | S | S | S | S | S | G | S | S | S | S | S | S | S | S | S | S |
| Alternative 2 | S | S | S | G | S | S | S | S | S | G | S | S | S | S | S | S | G | S | S | S |
| Alternative 3 | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S | L | G | S | S | S |
| Alternative 4 | G | S | S | G | S | S | S | S | S | G | S | S | S | S | S | L | G | S | S | G |
| Alternative 5 | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S | G | S | S | S |

**Metcalf to Grove Transmission Line Alternative 1**

Metcalf to Grove Transmission Line Alternative 1 would follow the same alignment as the Proposed Project, with the exception that instead of a HDD crossing for Coyote Creek, a new pedestrian bridge would be constructed for Coyote Creek Trail. The Metcalf to Grove 500 kV transmission line would be attached to the new pedestrian bridge. The pedestrian bridge would result in similar recreation impacts during construction but would provide long term recreation benefits. This alternative would be anticipated to have substantially more and greater impacts to biological resources and hydrology and water quality when compared to the Proposed Project. Metcalf to Grove Transmission Line Alternative 1 would not reduce any potentially significant impacts when compared to the Proposed Project.

Biological Resources Impacts

Riparian habitat and waterways are considered sensitive vegetation communities, and a small portion of Coyote Creek and its associated riparian habitat would be impacted by construction of the pedestrian bridge that would be constructed as part of Metcalf to Grove Transmission Line Alternative 1. Construction of the pedestrian bridge has the potential to impact sensitive species and habitat within Coyote Creek. This area is mapped as a designated critical habitat for steelhead trout. The California red-legged frog has the potential to occur within Coyote Creek in the vicinity of pedestrian bridge location. Suitable habitat also exists for the western pond turtle, and individuals could use areas in the immediate vicinity of Coyote Creek for breeding purposes. Thus, biological impacts would be greater than the Proposed Project as construction of the bridge would be more likely to cause potential impacts compared to the proposed HDD that would be installed under the creek.

Hydrology and Water Quality Impacts

Construction of the pedestrian bridge would have the potential to directly affect the creek, its hydrology, and the quality of the creek water. Some direct impacts to water quality could occur during construction of the bridge, but these impacts would remain less than significant through the implementation of the Proposed Project's Stormwater Pollution Prevention Plan (SWPPP), adherence to APMs, and issuance of wetlands and waters permits. Therefore, this alternative would result in greater impacts than the Proposed Project but would remain less than significant.

**Metcalf to Grove Transmission Line Alternative 2**

Metcalf to Grove Transmission Line Alternative 2 would be located entirely underground and would exit the proposed Grove terminal near the southwest corner of the terminal site, then follow Monterey Road for approximately 0.4 mile before turning northeast (refer to **Figure 4-5**). The transmission line would be attached to a newly constructed vehicular bridge to cross over Coyote Creek. The new vehicular bridge would replace the existing failing culverts within the main and secondary Coyote Creek channels. The alignment would then continue underground within Coyote Ranch Road until reaching the existing Metcalf substation modification area (refer to **Figure 4-5**). Metcalf to Grove Transmission Line Alternative 2 would be approximately 1.3 miles in length and would be located entirely underground except for the bridge crossing of Coyote Creek. As further described below, Metcalf to Grove Transmission Line Alternative 2 would have greater impacts to biological resources, hydrology and water quality, and transportation/traffic when compared to the Proposed Project.

Biological Resource Impacts

Metcalf to Grove Transmission Line Alternative 2 would be located entirely underground, mainly within Coyote Ranch Road. As part of this alternative, the existing failing culverts within the main and secondary channels would be removed, and a new vehicular bridge would be constructed over the main and secondary channels of Coyote Creek. Detailed bridge design would be refined during final engineering. The new bridge would significantly improve the channel and remediate existing road damage and would provide a benefit to steelhead and other wildlife within Coyote Creek from the removal and replacement of the failing culvert system. Minimal tree clearing and trimming would be required at the new Coyote Ranch Road bridge site to allow for adequate clearances for the operation of the construction equipment necessary to remove the existing culverts and construct the new bridge. Biological resources, including threatened and endangered species, are potentially located within the Coyote Creek riparian corridor. Riparian habitat and waterways are considered sensitive vegetation communities, and a small portion of Coyote Creek and its associated riparian habitat would be impacted by construction of the Coyote Ranch Road bridge that would replace the existing culverts. This area is mapped as a designated critical habitat for steelhead trout. The California red-legged frog has the potential to occur within Coyote Creek at the Coyote Ranch Road bridge location. Within the bridge replacement impact areas, suitable habitat exists for the western pond turtle, and individuals could use areas in the immediate vicinity of Coyote Creek for breeding purposes. Thus, biological impacts would be greater for Metcalf to Grove Transmission Line Alternative 2 than the Proposed Project as construction of the bridge would be more likely to cause potential impacts compared to the proposed HDD that would be installed under the creek.

Hydrology and Water Quality Impacts

Metcalf to Grove Transmission Line Alternative 2 would be located entirely underground, mainly within Coyote Ranch Road. By constructing a new bridge along Coyote Ranch Road in place of existing failing culverts, this alternative would directly impact the creek, its hydrology, and the quality of the creek water. The existing Coyote Ranch Road crossing of Coyote Creek consists of four 72-inch diameter culverts for the main channel and an additional three 60-inch diameter culverts for a secondary channel that is located approximately 100 feet east of the primary channel. The existing culverts and roadway embankment are overtopped by high water during significant rain events. This section of Coyote Ranch Road experienced severe damage during the winter storm of 2016-2017. Metcalf to Grove Transmission Line Alternative 2 would replace the failing culvert system at the Coyote Ranch Road crossing, and there would be beneficial long-term effects from the new bridge on Coyote Creek hydrology and water quality. Some direct

impacts to water quality could occur during construction of the bridge, but these impacts would remain less than significant through the implementation of the Proposed Project's Stormwater Pollution Prevention Plan (SWPPP) and adherence to APMs. Therefore, Metcalf to Grove Transmission Line Alternative 2 would increase impacts to hydrology and water quality compared to the Proposed Project but would also benefit Coyote Creek hydrology by removing and replacing the failing culvert system.

Transportation Impacts

Due to the underground transmission line being partially routed within Monterey Road, the Metcalf to Grove Transmission Line Alternative 2 would result in increased impacts to traffic and transportation on Monterey Road during construction. By comparison, the Proposed Project would avoid Monterey Road altogether, instead installing the transmission line within the less utilized Coyote Ranch Road. Therefore, Metcalf to Grove Transmission Line Alternative 2 would have greater impacts to transportation and traffic than the Proposed Project.

The portion of Coyote Ranch Road immediately east of Monterey Road is currently closed to traffic due to extensive damage. This alternative would construct a new vehicular bridge over the main and secondary channels of Coyote Creek. The new bridge would remediate existing road damage and provide access to Coyote Ranch Road for vehicles. Although construction of this alternative may result in additional road closures, the construction would substantially decrease existing hazards and improve the circulation system through enhanced vehicle and pedestrian facilities.

**Metcalf to Grove Transmission Line Alternative 3**

Metcalf to Grove Transmission Line Alternative 3 would be located entirely underground and would exit the proposed Grove terminal site to the southwest, then follow Monterey Road north for approximately 0.5 mile, before turning northeast to cross under Coyote Creek via an approximately 500-foot-long HDD. The HDD would also pass under Coyote Creek Trail, which generally parallels the creek at this location. After the HDD, the alignment would continue northeast until reaching Coyote Ranch Road, then follow the road northwest until reaching the existing Metcalf substation modification area (refer to **Figure 4-5**). As further explained below, Metcalf to Grove Transmission Line Alternative 3 would have greater impacts to traffic compared to the Proposed Project. However, Metcalf to Grove Transmission Line Alternative 3 would result in less impacts to recreation when compared to the Proposed Project.

Recreation Impacts

Metcalf to Grove Transmission Line Alternative 3 would be installed within Monterey Road for approximately 0.5 mile, before turning northeast where an HDD would be utilized to carry the transmission line under Coyote Creek and Coyote Creek Trail. By comparison, the Proposed Project would be installed within Coyote Ranch Road, including a portion where the Coyote Creek Trail is co-located with Coyote Ranch Road. Therefore, the Proposed Project would result in temporary impacts to Coyote Creek Trail during construction of the Metcalf to Grove 500 kV transmission line. Metcalf to Grove Transmission Line Alternative 3 would avoid these temporary impacts to the trail, utilizing Monterey Road and an HDD to avoid the trail. Therefore, Metcalf to Grove Transmission Line Alternative 3 would have less impacts to recreation than the Proposed Project.

Transportation Impacts
Due to the underground transmission line being partially routed within Monterey Road, the Metcalf to Grove Transmission Line Alternative 3 would result in increased impacts to traffic on Monterey Road. By comparison, the Proposed Project would avoid Monterey Road altogether, instead installing the transmission line within the less utilized Coyote Ranch Road. Therefore, Metcalf to Grove Transmission Line Alternative 3 would have greater impacts to transportation and traffic than the Proposed Project.

**Metcalf to Grove Transmission Line Alternative 4**

Metcalf to Grove Transmission Line Alternative 4 would be located mostly underground and would exit the proposed Grove terminal to the southwest, then follow Monterey Road for approximately one mile, before turning northeast to cross Coyote Creek. Under Metcalf to Grove Transmission Line Alternative 4, the transmission line would cross Coyote Creek overhead, via two new transmission structures (refer to **Figure 4-5**). The overhead creek crossing would be approximately 350 feet long, and the two new transmission structures would be approximately 120 feet tall. In addition, the transmission line would require an approximately 600-foot-long HDD under Fisher Creek, which is located in a concrete culvert under Monterey Road (refer to **Figure 4-5**). As further explained below, this alternative would be expected to have greater impacts to aesthetics, biology, hydrology and water quality, transportation/traffic, and wildfire risk when compared to the Proposed Project. Metcalf to Grove Transmission Line Alternative 4 would have less impacts on recreation.

Aesthetic Resource Impacts
Metcalf to Grove Transmission Line Alternative 4 would cross Coyote Creek overhead, via two new transmission structures. By contrast, the proposed Metcalf to Grove transmission line would be located entirely underground. While the overhead span across Coyote Creek would be located near other similar transmission lines crossing Coyote Creek into the existing Metcalf substation, the new transmission structures would be plainly visible from Monterey Road, Metcalf Road, Coyote Ranch Road, and Coyote Creek Trail. While impacts to aesthetic and visual resources would likely be less than significant for Metcalf to Grove Transmission Line Alternative 4, the impacts would nonetheless be greater than for the Proposed Project, or any of the other Metcalf to Grove Transmission Line Alternatives.

Biological Resources Impacts
Riparian habitat and waterways are considered sensitive vegetation communities, and a small portion of Coyote Creek riparian corridor and associated habitat is expected to be impacted by construction of one of the new overhead transmission line structures required under Metcalf to Grove Transmission Line Alternative 4. Construction of the new structure has the potential to impact sensitive species and habitat within the Coyote Creek riparian corridor. The adjacent Coyote Creek area is mapped as a designated critical habitat for steelhead trout. The California red-legged frog has the potential to occur within Coyote Creek in the vicinity of the new structure. Suitable habitat also exists for the western pond turtle, and individuals could use areas in the immediate vicinity of Coyote Creek for breeding purposes. Thus, biological impacts would be greater for Metcalf to Grove Alternative 4 than the Proposed Project as construction of overhead transmission line crossing would be more likely to cause potential impacts when compared to the proposed HDD that would be installed under the creek.

Hydrology and Water Quality Impacts

Metcalf to Grove Transmission Line Alternative 4 would include an overhead crossing of Coyote Creek, including two new transmission line structures (likely tubular steel poles). The western structure (refer to **Figure 4-5**) would be located within the Coyote Creek riparian corridor, specifically within Coyote Creek's existing floodway and 100-year floodplain. Construction and maintenance of this structure would impact waters of the State of California and would require a Lake or Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW), in compliance with CDFG Code Section 1602. Construction and maintenance of the western structure would result in potentially significant impacts to hydrology because the structure would be located in the floodplain and could affect flood flows and surface water hydrology. Potential impacts could also occur to water quality resulting from construction and operation activities within riparian corridor and floodway. Therefore, Metcalf to Grove Transmission Line Alternative 4 would result in greater impacts than the Proposed Project.

Recreation Impacts

Metcalf to Grove Transmission Line Alternative 4 would be installed within Monterey Road for approximately one mile, before turning northeast where it would transition to overhead and would cross over Coyote Creek and Coyote Creek Trail. By comparison, the Proposed Project would be installed within Coyote Ranch Road, including a portion where the Coyote Creek Trail is co-located with Coyote Ranch Road. Therefore, the Proposed Project would result in temporary impacts to Coyote Creek Trail during construction of the Metcalf to Grove 500 kV transmission line. Metcalf to Grove Transmission Line Alternative 4 would avoid these temporary impacts to the trail, utilizing Monterey Road and an overhead transmission line to avoid the trail. Therefore, Metcalf to Grove Transmission Line Alternative 4 would have less impacts to recreation than the Proposed Project.

Transportation Impacts

Due to the installation of the new underground transmission line within Monterey Road, including HDDs under Fisher Creek that would be required under Metcalf to Grove Transmission Line Alternative 4, traffic impacts on Monterey Road would be greater than would occur under the Proposed Project. In order to construct both the Grove to Skyline transmission line and the Metcalf to Grove transmission line under the Fisher Creek culvert, the entire width of Monterey Road may be subject to closures, as this could require a total of four separate HDDs. By comparison, the Proposed Project would only require one HDD under the Fisher Creek culvert. Therefore, Metcalf to Grove Transmission Line Alternative 4 would have greater impacts to transportation and traffic than the Proposed Project as well as Metcalf to Grove Transmission Line Alternatives 1 through 3.

Wildfire Impacts

Metcalf to Grove Transmission Line Alternative 4 would include an overhead crossing of Coyote Creek. The Coyote Creek riparian corridor is composed of hardwood woodland, which is considered to have a high wildfire hazard level (refer to **Section 5.20**, *Wildfire* and **Appendix 5.20-A***, Wildfire Behavior Modeling and Hazard Assessment*). While this overhead crossing would not be anticipated to create a significant unavoidable impact relating to wildfire risk, it would result in greater impacts than the Proposed Project, which includes a Metcalf to Grove 500 kV transmission line that would be located completely underground, thus minimizing the potential impacts related to wildfire.

Transmission Line Performance and Feasibility

Due to the potentially required spacing and depth of the HDD under Fisher Creek and the unknown geotechnical conditions, the complete feasibility of Metcalf to Grove Transmission Line Alternative 4 is not yet known. Specifically, the depth of the HDD could thermally limit the rating of the Metcalf to Grove 500 kV transmission line to a level below what is required by the Functional Specifications for the Proposed Project. Additionally, required horizontal spacing for the HDDs under Fisher Creek may not allow sufficient space for all required HDDs within Monterey Road (one HDD for the Grove to Skyline 320 kV DC transmission line and three HDDs for the Metcalf to Grove 500 kV transmission line [one HDD per 500 kV line phase]). Additional engineering and construction review is ongoing to determine the feasibility of Metcalf to Grove Transmission Line Alternative 4.

**Metcalf to Grove Transmission Line Alternative 5**

Metcalf to Grove Transmission Line Alternative 5 would be located entirely underground and would exit the proposed Grove terminal to the southwest, then follow Monterey Road for approximately 1.3 miles. On the north side of the Metcalf Road bridge, the transmission line would cross under Coyote Creek and Metcalf Road, utilizing an approximately 500-foot-long HDD (refer to **Figure 4-5**). The route would then cross Coyote Creek Trail, then follow Coyote Ranch Road until reaching the existing Metcalf substation modification area. In addition, the transmission line would require an approximately 600-foot-long HDD under Fisher Creek, which is located in a concrete culvert under Monterey Road (refer to **Figure 4-5**). As further explained below, Metcalf to Grove Transmission Line Alternative 5 would result in greater impacts to transportation and traffic.

Transportation Impacts

Due to the installation of the new underground transmission line within Monterey Road, including additional HDDs under Fisher Creek that would be required under Metcalf to Grove Transmission Line Alternative 5, traffic impacts on Monterey Road would be greater than would occur under the Proposed Project. In order to construct both the Grove to Skyline 320 kV DC transmission line and the Metcalf to Grove 500 kV transmission line under the Fisher Creek culvert, the entire width of Monterey Road may be subject to closures, as this could require a total of four separate HDDs. By comparison, the Proposed Project would only require one HDD under the Fisher Creek culvert. Therefore, Metcalf to Grove Transmission Line Alternative 5 would have greater impacts to traffic than the Proposed Project as well as Metcalf to Grove Transmission Line Alternatives 1 through 3.

Transmission Line Performance and Feasibility

Due to the potentially required spacing and depth of the HDD under Fisher Creek and Coyote Creek, as well as the unknown geotechnical conditions, the complete feasibility of Metcalf to Grove Transmission Line Alternative 5 is not yet known. Specifically, the depth of the HDD could thermally limit the rating of the Metcalf to Grove 500 kV transmission line to a level below what is required by the Functional Specifications for the Proposed Project. Additionally, the terrain associated with the Coyote Creek HDD for the Metcalf to Grove Transmission Line Alternative 5 is significantly more challenging than the Proposed Project's Coyote Creek HDD. Finally, required horizontal spacing for the HDDs under Fisher Creek may not allow sufficient space for all required HDDs within Monterey Road (one HDD for the Grove to Skyline 320 kV DC transmission line and three HDDs for the Metcalf to Grove 500 kV transmission line [one HDD per 500 kV line phase]). Additional engineering and construction review is ongoing to determine the feasibility of Metcalf to Grove Transmission Line Alternative 5.

## 6.2 ALTERNATIVES RANKING

**Tables 6-1** through **6-4** above show whether alternative projects considered herein would impact environmental resources as compared to the Proposed Project. The subsections below rank the alternatives in order of environmental performance.

### 6.2.1 GROVE TERMINAL ALTERNATIVE SITE RANKINGS

The rankings of the Grove terminal alternatives in order of environmental performance are as follows:

1. Alternative Grove 3
2. Alternative Grove 4
3. Proposed Grove Terminal Site
4. Alternative Grove 1
5. Alternative Grove 2

Alternative Grove 3 is considered the top-ranked Grove terminal site in terms of environmental performance because it would have reduced impacts for aesthetics, agriculture, air quality, biological resources, noise, and wildfire hazard, as explained above, when compared to the proposed Grove terminal site and the three other alternative sites[2]. None of the Grove terminal sites are currently projected to cause significant unavoidable impacts. Alternative Grove 4 would have similar reduced impacts to aesthetic resources, noise, wildfire, agricultural resources, air quality, and biological resources and compared to the proposed Grove terminal location; however, it would have more and greater impacts than Alternative Grove 3 for biological resources as well as for impacts associated with longer transmission lines.

Alternative Grove 1 would have greater impacts to key resources including aesthetics and biology, when compared to the proposed Grove terminal site and other alternatives considered. Alternative Grove 1 would also have greater impacts relating to transmission lines because it is the furthest alternative terminal site from the existing Metcalf and San Jose B substations. Alternative Grove 2 would have greater impacts to historic resources when compared to the other alternative terminal sites.

**Rationale for Proposed Grove Terminal Site Selection**

While the Alternative Grove 3 and 4 sites exhibit greater environmental performance relative to the proposed Grove terminal site and all other sites considered, they were not selected for the Proposed Project because the sites were determined not to be available for the Proposed Project's utilization. LS Power consulted with the Alternative Grove 3 property owner, PG&E, concerning the potential for siting the HVDC terminal on PG&E property adjacent to the existing Metcalf substation modification area. LS Power requested PG&E to consider relocating their existing facilities at this location; however, PG&E determined that they would not be able to accommodate the request given the existing and planned uses for the property. Similarly, the landowner for the Alternative Grove 4 site informed LS Power that they would not sell the site to LS Power and requested LS Power refrain from making any further offers for purchasing the site.

[2] Note that Alternative Grove 3, due to its location adjacent to the existing Metcalf substation, would require a substantially shortened 500 kV transmission line. The shortened 500 kV transmission line would result in reduced impacts to aesthetic resources, air quality, biological resources, hazards, hydrology and water quality, noise, recreation, transportation, utilities, and wildfire.

Thus, the Proposed Grove Terminal site is the most feasible for the Proposed Project and has the best environmental performance of the sites available for the Proposed Project.

### 6.2.2 SKYLINE TERMINAL ALTERNATIVE SITE RANKINGS

The rankings of the Skyline terminal alternatives in order of environmental performance are as follows:

1. Proposed Skyline Terminal Site
2. Alternative Skyline 2
3. Alternative Skyline 1

The proposed Skyline terminal location is considered the top-ranked Skyline terminal site in terms of environmental performance because it would have reduced impacts when compared to the other two potential sites. This is mainly due to the location of the proposed Skyline terminal site immediately adjacent to the existing San Jose B substation and the corresponding short Skyline to San Jose B 115 kV station tie line. Alternative Skyline 1 is ranked lowest because of the historic San Jose Water Company building located immediately adjacent to the alternative terminal site. In addition, both Skyline alternative sites are part of a proposed development project, and the availability of the sites is not confirmed at this time.

### 6.2.3 GROVE TO SKYLINE TRANSMISSION LINE ALTERNATIVE RANKINGS

The rankings of the Grove to Skyline Transmission Line Alternatives in order of environmental performance are as follows:

1. Proposed Grove to Skyline Transmission Line Alignment
2. Downtown San José Alternatives
3. Southern Segment Alternative 1
4. Southern Segment Alternative 2
5. Northern Segment Alternative 1

The proposed Grove to Skyline 320 kV transmission line is the top-ranked alternative in terms of environmental performance when compared to the other alternatives. While all analyzed Grove to Skyline 320 kV transmission line routes would include similar impacts to key resource areas including noise, air quality, vibration, cultural resources, and hazardous waste, Southern and Northern segment alternatives all include an overhead element which would be located generally east of U.S. Route 101, within the undeveloped foothills. These overhead transmission line segments would introduce new impacts that the proposed Grove to Skyline transmission line route, including impacts to aesthetics and visual resources, biological resources, geologic hazards, recreation, and wildfire risk. However, the impacts are anticipated to remain less than significant. The proposed Grove to Skyline 320 kV transmission line route would not result in these same impacts because it would be located exclusively underground within paved streets and other disturbed areas. The Downtown San José Alternatives would result in similar impacts as the Proposed Grove to Skyline 320 kV transmission line as they would be located exclusively underground within paved streets. The Downtown San José Alternatives continue to be evaluated in terms of existing underground utilities, which could ultimately dictate which route through downtown San José would be preferable.

### 6.2.4 METCALF TO GROVE TRANSMISSION LINE ALTERNATIVE RANKINGS

The rankings of the Grove to Metcalf Transmission Line Alternatives in order of environmental performance are as follows:

1. Proposed Metcalf to Grove Transmission Line
2. Metcalf to Grove Transmission Line Alternative 3
3. Metcalf to Grove Transmission Line Alternative 2
4. Metcalf to Grove Transmission Line Alternative 1
5. Metcalf to Grove Transmission Line Alternative 5
6. Metcalf to Grove Transmission Line Alternative 4

The proposed Metcalf to Grove 500 kV transmission line is the top-ranked 500 kV AC transmission line route in terms of environmental performance because it reduces potential impacts to biological resources, hydrology and water quality, and transportation resources by utilizing an HDD to install the transmission line under Coyote Creek and Coyote Creek Trail, which would avoid or substantially reduce direct impacts to each when compared to non-HDD alternatives. Metcalf to Grove Transmission Line Alternative 3 is similar to the Proposed Metcalf to Grove Transmission Line and would result in less recreational impacts from avoiding impacts to Coyote Creek Trail, but would result in additional transportation and traffic impacts to Monterey Road. Metcalf to Grove Transmission Line Alternative 1 ranked behind the Proposed Project and Metcalf to Grove Transmission Line Alternative 3 because it would increase impacts to biological and hydrological resources when compared to the proposed alignment, although it would provide long term recreation benefits. Metcalf to Grove Transmission Line Alternative 2 ranked behind the Proposed Project and Metcalf to Grove Transmission Line Alternative 3 because it would increase impacts to traffic, biological, and hydrological resources when compared to the proposed alignment. Metcalf to Grove Transmission Line Alternatives 4 and 5 are ranked the lowest because they would require the transmission line to be installed under the Fisher Creek culvert within Monterey Road and would entail greater transportation and traffic impacts. In addition, Metcalf to Grove Transmission Line Alternative 4 would have greater impacts to aesthetics and wildfire when compared to all other alternatives. None of the Metcalf to Grove Transmission Line Alternatives are currently projected to have significant unavoidable impacts.

# 7.0 CUMULATIVE AND OTHER CEQA CONSIDERATIONS

## 7.1 CUMULATIVE IMPACTS

### 7.1.1 LIST OF CUMULATIVE PROJECTS

Projects included in the cumulative impact assessment were identified by using a list approach (California Environmental Quality Act [CEQA] Guidelines Section 15130[b][1][A]), including pending development projects within an approximately two-mile radius of the Proposed Project. Where projects were identified that may overlap with the geographic study area for potential resource areas, additional projects (beyond two miles) were included. **Appendix 7-A**, *Cumulative Projects Table* summarizes these pending development projects. **Figure 7-1**, *Cumulative Projects* depicts these projects.

### 7.1.2 GEOGRAPHIC SCOPE

The geographic scope of analysis for cumulative impacts varies depending on the resource and considers the extent to which impacts can be cumulative. Therefore, the sections below describe the appropriate geographic scope for each resource that would be analyzed for cumulative impacts.

As shown in **Section 5.0**, *Environmental Analysis*, implementation of the Proposed Project would result in no impacts or negligible impacts on land use, population and housing, and wildfire. Consequently, the Proposed Project would not have the potential to contribute to cumulative impacts related to these resource areas, and they are not discussed further herein.

**Aesthetics**. The geographic scope of analysis for cumulative aesthetics impacts to which the Proposed Project may contribute includes the Proposed Project's foreground, middle ground, and background viewshed, as described in **Section 5.1.1.3**, *Viewshed Analysis*. Typically, the cumulative aesthetics impact analysis area generally encompasses the visual landscape within an approximately five-mile radius; however, although Proposed Project components would potentially be visible from a distance of up to five miles, the intervening structures and vegetation constrain distant views. In addition, the Proposed Project transmission lines would be installed underground and would not contribute to cumulative aesthetic resource impacts. Therefore, the geographic scope primarily includes the foreground viewshed, including motorist and resident views to the proposed Skyline terminal, and from Coyote Creek Trail to the proposed Grove terminal.

**Agricultural and Forestry Resources**. The geographic scope of analysis for cumulative agricultural and forestry resource impacts includes a radius of two miles. This geographic scope was selected because the Proposed Project area, particularly the southern portion, contains numerous agricultural parcels, and there is an emphasis at a regulatory level to preserve agricultural areas.

**Air Quality**. The San Francisco Air Basin (SFAB), which is governed by the Bay Area Air Quality Management District (BAAQMD), covers approximately 6,966 square miles within the Bay Area. This area represents the cumulative geographic scope for air quality because plans and thresholds are established at the basin level to attain air quality standards that are assigned for the entire air basin. Cumulative impacts on sensitive receptors, construction workers, and odors are considered at a far more localized level due to the more limited area of dispersion. The

geographic scope for these cumulative impacts is limited to projects in the immediate vicinity, or within a quarter mile. Impacts from projects located beyond this distance would not combine with the Proposed Project to create cumulative effects.

**Biological Resources**. The geographic scope of analysis for cumulative biological resource impacts is a two-mile radius around the Proposed Project area. This allows for a cumulative analysis of habitat, wildlife corridors, or other sensitive natural communities that stretch beyond the Proposed Project area, while taking into account the developed nature of the surrounding area.

**Cultural Resources and Tribal Cultural Resources (TCRs)**. The geographic scope of analysis for cumulative cultural resource impacts depends on the type of resource. Typically, prehistoric and historic resources are located subsurface, and, therefore, cumulative impacts are considered at a localized level, which for the Proposed Project includes the Proposed Project area , as defined in **Section 5.5**, *Cultural Resources*. The geographic scope for historic built environment resources and TCRs includes a one-mile buffer around the APE because these resources can be impacted by changes in the visual landscape or by increases in ambient noise levels, as well as direct impacts.

**Energy**. The geographic scope of analysis for energy usage (i.e., fuels) and compliance with local plans is the County of Santa Clara, which comprises approximately 1,292 square miles. The Proposed Project's fuel usage statistics were compared against fuel usage from the entire County. With respect to renewable energy usage, the Pacific Gas and Electric Company (PG&E) service territory is used as the geographic scope of analysis because the renewable energy usage statistics applicable to the Proposed Project are those of PG&E. Finally, the state of California is the geographic scope for cumulative impacts relating to Statewide plans.

**Geology, Soils, and Paleontological Resources**. The geographic scope for cumulative impacts on geology, soils, and paleontology depends on the geologic issue. The geographic scope with respect to seismicity includes the Proposed Project area and those projects within a two-mile radius because an earthquake capable of creating substantial damage or injury at the Proposed Project area could cause similar damage throughout this area. The geographic scope for other geologic issues is considered at a more localized level because impacts are generally site-specific and not additive across a landscape.

**Greenhouse Gases (GHGs)**. The geographic scope of cumulative analysis for GHGs is the state of California because GHG reduction regulations are at the state level, and the impacts of global climate change affect the entire state.

**Hazards, Hazardous Materials, and Public Safety**. The hazards and hazardous materials cumulative impact geographic scope consists of the areas that could be affected by Proposed Project activities, as well as areas affected by other projects whose activities could directly or indirectly affect the proposed activities within the Proposed Project area. Therefore, a two-mile radius was considered in this analysis.

**Hydrology and Water Quality**. The geographic scope of analysis for cumulative impacts on hydrology and water quality typically includes the hydrologic region and groundwater basin because water sources throughout the region are interconnected. The Proposed Project is located within the Coyote Watershed and the Santa Clara Valley Groundwater Basin, Santa Clara subbasin.

**Mineral Resources**. The geographic scope of analysis for cumulative impacts on mineral resources would primarily focus on the Proposed Project area. This is because minerals occur at specific locales and are unaffected by activities not acting on them directly, and any impacts of the Proposed Project would be site-specific.

**Noise**. The geographic scope of analysis for cumulative noise impacts would include a 2,000-foot buffer around the Proposed Project area and adjacent parcels because noise attenuates rapidly with distance, equaling an approximate reduction of six decibels (dB) for every doubling of distance from the noise source. Noise generated from a greater distance would not be cumulative with noise generated on the Proposed Project site.

**Public Services**. The geographic scope of analysis for cumulative public service impacts includes the service areas of the service providers discussed in **Section 5.15**, *Public Services* because substantial changes to a provided service would influence the entire service area for each specific service.

**Recreation**. The geographic scope for considering cumulative impacts on recreation is the City of San José. This geographic extent is appropriate as residents would utilize Citywide recreational facilities. However, residents are unlikely to travel multiple miles from their residences to visit recreational facilities on a regular basis; therefore, this analysis primarily focuses on a two-mile radius.

**Transportation**. A typical geographic scope for cumulative transportation impacts includes all regional and local roadways that would be used to access the Proposed Project or that could otherwise be impacted by the Proposed Project during construction. Therefore, the geographic scope of analysis for cumulative transportation impacts focuses on the roadways that are adjacent to the Proposed Project area but also considers roadways within approximately two miles of the Proposed Project area.

**Utilities and Service Systems**. A significant cumulative impact would result if the Proposed Project were to contribute to impacts that exceeded the planned use and capacity of the wastewater, water, solid waste, and/or energy service providers in the area of the Proposed Project. Therefore, the geographic scope of analysis for this resource includes the utility providers service areas identified in **Section 5.19**, *Utilities and Service Systems*.

### 7.1.3 CUMULATIVE IMPACT ANALYSIS

The discussion below evaluates the potential for the Proposed Project to contribute to a cumulatively considerable impact on the environment. As shown in **Section 5.0**, implementation of the Proposed Project would result in no impacts or negligible impacts on land use and planning, population and housing, and wildfire. Consequently, the Proposed Project would not have the potential to contribute to cumulative impacts related to these resource areas, and they are not discussed in the cumulative impact analysis below.

The cumulative analysis that follows addresses the incremental contribution of the Proposed Project to cumulative impacts associated with aesthetics; agricultural and forestry; air quality; biological resources; cultural resources and Tribal resources; energy; geology, soils, and paleontological resources; greenhouse gas emissions; hazards, hazardous materials, and public safety; hydrology and water quality; mineral resources; noise; public services; recreation; transportation; and utilities and service systems.

**Aesthetics**. A cumulatively considerable impact on aesthetics could result if the Proposed Project would contribute to a significant cumulative impact related to a substantial adverse effect on a scenic vista; substantially damage scenic resources within a scenic highway; substantially degrade the existing visual character or quality of public views; conflict with applicable zoning and other regulations governing scenic quality; or result in the addition of a substantial cumulative amount of light and/or glare. At the project level, there were determined to be less-than-significant impacts related to all impact questions; therefore, cumulative impacts for these issues are evaluated below.

The Proposed Project area is primarily located within an urban area. As the proposed underground Grove to Skyline 320 kilovolt (kV) direct current (DC) transmission line approaches the existing Metcalf substation, the surrounding area transitions to agricultural and light industrial land uses. As discussed in **Section 5.1**, *Aesthetics*, the Proposed Project includes the following scenic vistas and corridors that have a view of the Proposed Project: high elevation points of the Santa Cruz Mountain Range, the Diablo Mountain Range, and the Santa Clara Valley, along with the Guadalupe River Park, Guadalupe River Trail, Ryland Park, Ryland Parkway Trail, Coyote Creek Parkway, Coyote Creek Trail, and the City of San José skyline. The Santa Cruz Mountain Range and Diablo Mountain Range are between three and five miles from the Proposed Project area; therefore, while the Proposed Project area is visible from these scenic vistas, the individual structures are not visible due to distance. The Proposed Project is prominently visible from Guadalupe River Park, Guadalupe River Trail, Ryland Parkway Trail, Coyote Creek Parkway, and Coyote Creek Trail; however, since the majority of the Proposed Project would be located underground, no long-term impacts to scenic vistas would occur. As detailed in **Section 5.1.4.1**, *Visual Impact Analysis*, the Proposed Project would introduce new structures to the viewshed; however, they would be consistent with the existing structures in the surrounding areas and would not substantially affect the existing landscape character. Implementation of **Applicant Proposed Measure (APM) AES-1** and **APM AES-2** would ensure that the Proposed Project structures have a non-reflective finish and colors similar to existing structures or features in the surrounding area to the extent practicable, and the Proposed Project would maintain natural vegetation and features that make up the visual landscape, which would reduce permanent and temporary impacts to less-than significant levels.

The Proposed Project's primary permanent visual components include the proposed Skyline terminal and Grove terminal sites. The closest project in proximity to these areas that could possibly be considered within the same viewshed as the Proposed Project is Westbank Terraine. Metcalf Substation Circuit Breaker #292 Upgrade and Casona-Metcalf 230 kV Line Limiting Elements Removal are located within the existing Metcalf substation, to the north of the proposed Grove terminal, but are separated by Coyote Creek from traveling motorists along Monterey Road. Therefore, they would not be considered within the same viewshed as the proposed Grove terminal site. Westbank Terraine is located approximately 500 feet southeast of the proposed Skyline terminal and can be considered within the same viewshed; however, the view would not be cumulatively considerable due to the existing urban landscape surrounding the area and the presence of State Route 87 between the two areas, which would further obscure the view. Therefore, the Proposed Project's incremental contribution to cumulative aesthetic impacts would not be cumulatively considerable and would be less than significant.

**Agricultural and Forestry Resources**. A cumulatively considerable impact on agriculture and forestry resources could result if the Proposed Project would contribute to a significant cumulative impact related to a conversion of farmland or forestry resources to non-agricultural or forestry

uses. At the project level, there were determined to be no impacts related to forestry resources; as such, cumulative impacts for these issues are not evaluated.

The Proposed Project would require the permanent conversion of approximately 7.4 acres of Prime Farmland to non-agricultural uses in order to accommodate the proposed Grove terminal site. The proposed site for the Grove terminal is unique in comparison to other designated Prime Farmland areas because the approximately 13.6-acre site is not connected to other agricultural areas and is instead bounded by industrial and commercial uses to the north, Coyote Creek and U.S. Route 101 to the east, residential areas to the south, and Monterey Road to the west. Additionally, there are no Williamson Act Contract lands within the Proposed Project site, and the proposed uses of the Proposed Project area are consistent with the existing zoning related to agriculture, as utilities are considered exempt uses. Therefore, project-level impacts would be less than significant.

There were no cumulative projects identified within two miles of the proposed Grove terminal that contain agricultural resources. In addition, the City of San José is currently analyzing existing and potential new uses for the properties located along the east side of Monterey Road in Coyote Valley because of the distinct character of the area, including considering the possibility of allowing uses which are more industrial or commercial in nature (City of San José, 2023c). As part of this study, the City identified property owners who have expressed that traditional/historic agricultural uses have faced significant challenges over the years. Therefore, while the 13.6-acre site is capable of continuing agricultural production, it is not the most suitable or effective land for long-term agricultural production, regardless of the Proposed Project. Therefore, the Proposed Project is not anticipated to result in cumulatively significant impacts to agriculture and forestry. The Proposed Project's incremental contribution to cumulative agriculture and forestry impacts would not be considerable and would be less than significant.

**Air Quality**. The Proposed Project was analyzed for construction and operational air quality emissions**.** Under this analysis, the Proposed Project would generate less-than-significant air quality impacts. With respect to an analysis of the Proposed Project's cumulative impacts, it is important to note that air quality impacts relating to criteria pollutants are inherently cumulative. Emissions from various sources throughout the Air Basin are additive and cumulatively contribute to the basin's attainment status with respect to National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS).

Because of this, most significance thresholds are developed such that an individual project's significance determination can also be determinative of its cumulative impact. That is to say, if a project's individual emissions exceed applicable significance thresholds, such impact would be considered individually significant as well as resulting in a cumulatively considerable contribution to a significant cumulative impact. The BAAQMD thresholds of significance that are used as the basis for determining the Proposed Project's impacts relating to criteria pollutants were developed with respect to the fact that air quality impacts are inherently cumulative.

Therefore, while additional projects and other emissions sources would be active concurrently with the Proposed Project, the severity of the Proposed Project's cumulative effect on air quality can be determined by its comparison to the BAAQMD significance thresholds. As described above and summarized in **Tables 5.3-5** through **5.3-9** in **Section 5.3**, *Air Quality*, the Proposed Project would not exceed any of the BAAQMD thresholds for criteria pollutants and would not conflict with existing air quality plans. Therefore, while emissions of criteria pollutants are cumulatively considerable, the impact would be less than significant.

Potential impacts from localized air quality emission resulting in human health risk or nuisance odors could occur if such emission occur simultaneously, in close enough proximity to each other and to potential receptors. The Proposed Project was identified to have less than significant impacts in this regard during construction, with the greatest impacts occurring at the Grove terminal where construction would last approximately two years in relatively close proximity to potential receptors (refer to **Figure 5.3-2**, *Grove Terminal Nearby Sensitive Receptor Locations Map*). However, no potentially cumulative projects were identified in close enough proximity (either by distance or construction schedule) to the proposed Grove terminal area (refer to **Figure 7-1** and **Appendix 7-A)** to contribute to such impacts. With respect to emission leading to potential nuisance odors, less-than-significant impacts could occur during construction. However, impacts are not anticipated to occur once the Proposed Project is operational. Localized air emissions leading to odors could be cumulatively considerable if the proximity and duration was such that the odor(s) could adversely affect a substantial number of people. Because potential less-than-significant impacts would only occur during construction, any such potential cumulative impact could also only occur during construction. The temporary nature of construction, and the minor nature of potential odors from construction activities would not be anticipated to create a significant adverse effect to a substantial number of people. Further, PG&E **Best Management Practices (BMPs) AQ-1** through **AQ-5** would be implemented during construction of the PG&E facility upgrades and reduce potential cumulative air quality impacts resulting from the existing PG&E substation sites. Potential cumulative impacts associated with localized air quality and health risk would be less than significant.

Therefore, the Proposed Project's contribution to potential significant cumulative air quality impacts is not considered to be significant. Impacts under this criterion are less than significant.

**Biological Resources**. A significant cumulative impact on biological resources could result if the Proposed Project would contribute to cumulative impacts related to sensitive habitat or species, sensitive habitat/natural communities, or wildlife movement corridors. At the project level, there were determined to be no impacts related to local policies or ordinances protecting biological resources; as such, cumulative impacts for this issue are not evaluated.

Direct impacts to special-status plant species and sensitive vegetation communities could include destruction of individual plants, and indirect impacts could include loss of areas that contain suitable microhabitat conditions for special-status plants and introduction of non-native weed species that may out-compete these plants. The Proposed Project would result in approximately 19.0 acres of permanent disturbance (10.8 acres of disturbed/developed land, 7.4 acres of orchards, less than 0.1 acre of hardwood woodland, and 0.8 acre of annual grassland) and approximately 251.0 acres of temporary disturbance (235.8 acres of disturbed/developed land, 6.2 acres of orchards, 3.5 acres of hardwood woodland, and 5.5 acres of annual grassland; as shown in **Table 5.4-3**, *Impacts by Vegetation Community* and **Figure 5.4-6**, *Biological Impact Area Map*). LS Power Grid California, LLC ("LS Power") would restore all sensitive areas that are temporarily disturbed by the Proposed Project activities to approximate preconstruction conditions (**APM BIO-1**). Focused surveys for rare plants would be conducted (February 1 through June 15) (**APM BIO-2**), and any populations that are found would be avoided to the extent practicable. The riparian habitat and water features would be demarcated and avoided to the extent practicable by construction activities (**APM BIO-4**); preconstruction sweeps would occur within disturbance areas (**APM BIO-3**); and vehicles would be cleaned prior to arriving on-site in sensitive natural areas (**APM BIO-5**), limiting the potential spread of noxious weeds within the Proposed Project area. Further, surveys for special-status animal species and nesting birds would be conducted

within all proposed impact areas to avoid impacts to sensitive habitats (**APMs BIO-9, BIO-10,** and **BIO-12** through **BIO-16**).

Several special-status wildlife species were observed during habitat assessment and jurisdictional waters surveys: bald eagle (Bald and Golden Eagle Protection Act-protected, State endangered), red-tailed hawk, turkey vulture, red-shouldered hawk (raptors; Migratory Bird Treaty Act [MBTA] and California Fish and Game Code-protected), California gull, western grebe, California thrasher, Nuttall's woodpecker (Birds of Conservation Concern and MBTA protected), and western pond turtle (California Species of Special Concern). If covered species under the Santa Clara Valley Habitat Conservation Plan (HCP) are confirmed to be present during species-specific surveys, the take for these species would be covered either under the HCP or covered under a Federal and State Incidental Take Permit in consultation with the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW).

The current level of disturbance and human activity associated with the City of San José is very high within a majority of the Proposed Project impact areas. The southeastern portion of the Proposed Project impact areas that are in the vicinity of Coyote Creek are the only areas that have a relatively low level of disturbance and contain native habitats. A small amount of direct impacts to special-status species, such as potential for mortality, destruction of nesting or breeding habitat, and loss of foraging habitat, may occur primarily in association with the construction in the vicinity of Coyote Creek and the Coyote Ranch Road and Coyote Creek Trail improvements. The temporary nature of the construction of the Proposed Project would only slightly increase the levels of disturbance and human activity that may indirectly impact wildlife species. The level of disturbance associated with long-term operation would be low due to the undergrounding of the proposed Metcalf to Grove 500 kV transmission line and the current level of disturbance in the area. Additionally, because a majority of the Proposed Project is expected to be constructed within existing disturbed roadways and temporary work areas are also expected to be within previously disturbed habitats, new disturbance is expected to be minimal. There is a large amount of similar habitat in the vicinity of Coyote Creek; therefore, the temporary and permanent loss of approximately 9.9 acres of potentially suitable habitat (5.5 acres of temporary and 0.8 acre of permanent impacts to annual grassland; and 3.5 acres of temporary and less than 0.1 acre of permanent hardwood woodland) for special-status wildlife species would be less than significant.

The existing PG&E substations do not currently support candidate, sensitive, or special-status species or habitats. The PG&E facility upgrades would include a new water line to the existing Metcalf substation, which would extend approximately 800 feet north-northeast from the Metcalf substation and pass through existing roadways, annual grassland habitat, and urban/developed land. While the PG&E facility upgrades and new water line are not anticipated to result in impacts to biological resources, PG&E would implement HCP **Field Protocols (FPs) 1** through **18** as well as construction **BMPs BIO-1** through **BIO-3** to reduce potential impacts at the existing PG&E substations to a less-than-significant level.

All present and future projects would be required to mitigate for impacts to biological resources, and it is anticipated that other projects would be subject to similar measures, as well as the applicable federal, state, and local laws and regulations that protect biological resources. Therefore, the Proposed Project's incremental contribution to cumulative biological resources impacts would not be cumulatively considerable and would be less than significant.

**Cultural Resources**. A significant cumulative impact on cultural resources could result if the Proposed Project would contribute to cumulative direct or indirect impacts on significant historical or archaeological resources and/or inadvertently discovered human remains.

There are two known historical resources, as defined in CEQA Section 15064.5, located within the Proposed Project area (P-43-002628 and P-43-002629) and one known historical resource located in the PG&E facility upgrade area (P-43-001116). P-43-002628, a non-material travel route, is part of the National Historic Trail network and is listed as California Landmark #784. P-43-002629 is listed as California Registered Point of Historical Interest #SCL-056. There are no additional recorded historical resources within the Proposed Project area. However, unrecorded historical resources may exist within or adjacent to the Proposed Project area. Implementation of **APMs CUL-1** through **CUL-4** and PG&E **BMPs CULT-1** through **CULT-5** would reduce potential impacts to less than significant. There is one known archaeological resource within the Proposed Project area (P-43-000571), which was evaluated and recommended not eligible for listing on the National Register of Historic Places (NRHR) or the California Register of Historic Resources (CRHR). There are no known archaeological resources, as defined in CEQA Section 15064.5, located within the PG&E facility upgrade area. However, there may be unrecorded subsurface archaeological resources. There are two known resources associated with human remains located within the Proposed Project area (P-43-001279 and P-43-003535), and unrecorded human remains may be present within the Proposed Project area. Implementation of **APMs CUL1** through **CUL-3** and **CUL-5** would reduce potential impacts to less than significant. There is one known resource associated with human remains (P-43-000189) located along the PG&E proposed new water line connection. P-43-000189 is a prehistoric village site with human remains that was determined eligible for listing on the NRHP and CRHR (1978). It was subjected to data recovery and reburial, and the site was expanded and updated during the survey for the Proposed Project. Additionally, there may be unrecorded subsurface archaeological resources, as indicated by recorded archaeological sites within the record search buffer. While the possibility exists that subsurface resources or remains could be unearthed during construction, the Proposed Project includes **APMs CUL-1** through **CUL-5** and PG&E **BMPs CULT-1** through **CULT-5** to further ensure impacts remain at less-than-significant levels.

While present and reasonably foreseeable future projects could also encounter subsurface resources or remains, the existing regulations and plans, as well as standard mitigation measures, would reduce potentially significant impacts to less-than-significant levels. In addition, impacts to cultural resources are site-specific and, as such, are not expected to combine with the development of other projects to cumulatively increase the risk of impacting subsurface resources or remains. The Proposed Project is designed to avoid known cultural resources and includes APMs to ensure impacts to any cultural resources that are unexpectedly discovered within the Proposed Project area are less than significant.

Therefore, the Proposed Project's incremental contribution to cumulative cultural resources impacts would not be cumulatively considerable and would be less than significant.

**Energy**. As explained in **Section 5.6**, *Energy*, the Proposed Project would have no impact with respect to conflicts with state or local plans for renewable energy or with respect to adding capacity for the purpose of serving a non-renewable energy source (significance criteria b and c respectively). Therefore, the Proposed Project would not contribute to a cumulatively significant impact for either of these criteria.

With respect to adverse environmental impacts resulting from wasteful, inefficient, or unnecessary consumption of energy resources, the Proposed Project was found to have a less-than-significant impact because construction and operation would utilize a relatively small amount of energy and fossil fuels, while increasing the electrical system efficiency for future uses of renewable energy within the region. While other projects and activities within the Proposed Project vicinity and beyond would also utilize fossil fuels and electrical energy from the PG&E electrical grid, the Proposed Project's contribution to any potentially significant effect would not be considerable. Even if, as a worst case, a cumulatively significant impact was to occur regarding fossil fuel usage in the Proposed Project vicinity, the City of San José, the County of Santa Clara, or in California as a whole, the Proposed Project's contribution to such an impact would not be cumulatively considerable. The Proposed Project's incremental contribution to energy impacts is, therefore, not cumulatively considerable, and the Proposed Project's impacts to cumulative energy resources is less than significant.

**Geology, Soils, and Paleontological Resources**. A significant impact on geology and soils could result if the Proposed Project would contribute to cumulative impacts related to exacerbating the risk of seismic activity, unstable soils, or lateral spreading. A significant cumulative impact on paleontological resources would result if the Proposed Project would contribute to destruction of significant resources, sites, or unique geologic features. At the project level, there were determined to be no impacts related to soils incapable of supporting septic tanks; as such, cumulative impacts for these issues are not evaluated because the Proposed Project has no impacts in this category of analysis.

As shown in **Section 5.7,** *Geology, Soils, and Paleontological Resources*, the Proposed Project is located within a seismically active area, and active faults are located within 10 miles of the site. Faults in surrounding areas could result in ground shaking within the Proposed Project area, though there is a low likelihood of an earthquake fault rupture considering the short construction period. The Proposed Project area also sits within a large liquefaction zone and consists of gently sloping topography; however, it does not involve the withdrawal of fluid from geologic materials, nor would it alter slope stability factors in a way that would increase the area's susceptibility to landslides. Soils within the Proposed Project area have moderate erosion potential, and the Proposed Project would result in more than one acre of soil disturbance. As a result, the Proposed Project would be required to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). Additionally, a Proposed Project-specific Paleontological Resources Mitigation and Monitoring Plan (PRMMP) would be developed and employed to reduce potentially adverse impacts to paleontological resources through the recovery and conservation of any fossils that are unearthed during construction, as impacts to paleontological resources may occur during the Proposed Project excavations that would disturb Pleistocene-aged alluvial deposits. **APMs GEO-1**, **PALEO-1**, **PALEO-2**, and PG&E **BMP PALEO-1** would reduce impacts related to unstable soils and paleontological resources to less-than-significant levels.

While present and reasonably foreseeable future projects within the geographic scope for cumulative impacts could also result in soil erosion or loss of topsoil, or other impacts related to geologic hazards or unstable soils, none of these projects would be capable of exacerbating the potential for a geologic hazard given their limited impact on the area's geologic setting and the requirement to grade and compact soils in accordance with local and state standards designed to prevent soil hazards from occurring. Moreover, specific regulations that address worker safety would be in place if a seismic event were to occur, helping to avoid any harm to people or extensive damage to structures. In addition, the existing regulations and plans, as well as

standard mitigation measures, in place to protect paleontological resources would reduce potentially significant impacts to less-than-significant levels.

Therefore, the Proposed Project's incremental contribution to cumulative geology, soils, and paleontological resource impacts would not be cumulatively considerable and would be less than significant.

**Greenhouse Gas Emissions**. GHG emissions directly generated during construction and operation would result in a less than significant, short-term impact to climate change (refer to **Section 5.8**, *Greenhouse Gases*). GHG impacts within the SFAB are assessed based on a yearly operations emissions threshold. As shown in **Table 5.8-4**, *Operational Emissions Summary MT/Year*, the Proposed Project would have less-than-significant impacts from emission of GHGs, including operations and annualized construction. In addition, the Proposed Project would ultimately increase the efficiency of integrating existing and future renewable energy projects. As a result, the Proposed Project would not contribute considerably to the emissions associated with the construction or operation of other projects planned in the Proposed Project vicinity or within the basin as a whole. Thus, the Proposed Project's impacts from GHG emissions would not be cumulatively considerable.

**Hazards, Hazardous Materials, and Public Safety**. A significant cumulative impact on hazards, hazardous materials, and public safety could result if the Proposed Project were to contribute to impacts related to the release, transport, use, or disposal of hazardous materials, substances, or waste. At the project level, there were determined to be no impacts related to air traffic, transportation, wildland fires, and unexploded ordinance; as such, cumulative impacts for these issues are not evaluated.

As discussed in **Section 5.9**, *Hazards, Hazardous Materials, and Public Safety*, the Proposed Project would not result in any significant impacts to this issue area. **APMs HAZ-1** through **HAZ-5** and PG&E **BMPs HAZ-1** through **HAZ-12** would be implemented to ensure potential impacts would remain less than significant. Other present and reasonably foreseeable future projects within the geographic scope, including the projects listed in **Appendix 7-A**, could involve hazards and hazardous materials similar to those identified for the Proposed Project; however, it is anticipated that these projects would be required to follow applicable regulations for characterization, handling, and disposing of any hazards or hazardous materials. Therefore, potentially cumulative impacts from routine use, handling, and disposal of hazardous materials would be less than significant. The likelihood of upset, emergency, or other abnormal conditions occurring on multiple projects simultaneously is very low.

Therefore, the Proposed Project's incremental contribution to cumulative hazards, hazardous materials, and public safety impacts would not be cumulatively considerable and would be less than significant.

**Hydrology and Water Quality**. A significant cumulative impact on hydrology and water quality could result if the Proposed Project were to contribute to impacts related to water quality, depletion of groundwater supplies or interference with recharge, alterations to drainage patterns, exacerbating flood hazards, or conflicting with applicable plans.

As shown in **Section 5.10**, *Hydrology and Water Quality*, the Proposed Project would not violate any water quality standards or waste discharge requirements. Implementation of **APM WQ-1** would further reduce project-level impacts to less-than-significant levels. The majority of the

cumulative projects listed in **Appendix 7-A** would involve at least one acre of soil disturbance and, therefore, a SWPPP would be prepared as required by the state National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Stormwater Associated with Construction Activity. All listed projects would also be subject to regulations that require compliance with water quality standards, including state and local water quality regulations. Compliance with existing laws, ordinances, regulations, and standards in place for the protection of water quality are designed to address potential effects at a regional level and, therefore, are designed and intended to mitigate potential adverse effects resulting from multiple discrete projects or locations (i.e., cumulative impacts).

Therefore, the Proposed Project's incremental contribution to cumulative hydrology and water quality impacts would not be cumulatively considerable and would be less than significant.

**Mineral Resources**. A significant cumulative impact on mineral resources could result if the Proposed Project were to contribute to the loss of availability of known regional mineral resources and to the loss of locally important mineral resource recovery sites delineated in local general or land use plans.

As discussed in **Section 5.12**, *Mineral Resources*, the proposed Metcalf to Grove 500 kV transmission line and Staging Area 2 intersect Mineral Resource Zone (MRZ)-2, which is defined as an area where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence. The MRZ-2 mapped area is primarily designated for uses including agriculture and open space (see **Section 5.11**, *Land Use and Planning* for more information), with Coyote Creek meandering through. Staging Area 2 would be located on a site that is currently developed and unlikely to be used for mineral extraction due to the size and surrounding land use. Within the urban area of San José, portions of the proposed Grove to Skyline 320 kV DC transmission line alignment intersect with MRZ-3. The MRZ-3 areas are located within the heart of urban San José and not currently used for mineral extraction. Therefore, construction and operation of the Proposed Project would not result in the loss of any known mineral resources and there would be less-than-significant impacts at the project level.

The cumulative projects listed in **Appendix 7-A** would also be subject to regulations that require compliance with local land use plans, policies, and regulations pertaining to mineral resources. Additionally, the Proposed Project is not located on land that is currently used for mineral extraction, and most of the Proposed Project area is within urbanized areas that could not be used for mineral extraction in the future. Therefore, potentially cumulative impacts that could result from the loss of availability of known regional mineral resources and of locally important mineral resource recovery sites delineated in local general or land use plans would not be cumulatively considerable and would be less than significant.

**Noise**. For the Proposed Project, both construction and operational noise and vibration levels were analyzed in **Section 5.13**, *Noise*. Construction of the Proposed Project would temporarily increase noise levels in the area; however, no impacts would occur as a result of operational noise at the nearest sensitive receptors as operational noise levels are below ambient, and no APMs were proposed. The Proposed Project was found to not exceed the noise levels limit at any property boundary during operations and maintenance activities. In addition, operations-related vibration was determined to not be noticeable to the nearest sensitive receptor. A significant cumulative impact on noise and vibration would result if the Proposed Project were to contribute

to impacts related to exceedances of noise standards or ground-borne vibration when evaluated within the context of past, present, and reasonably foreseeable future projects.

Construction-related vibrations were found to potentially exceed thresholds where vibration-inducing construction would occur within 25 feet of vibration-sensitive structures. Implementation of **APM NOI-1** would reduce potential impacts from vibrations to be less than significant. The Proposed Project's vibration-related impacts would occur from underground transmission line construction occurring within City streets through urban areas of San José. While the proposed Grove to Skyline 320 kV DC transmission line alignment does contain multiple cumulative projects in the close vicinity, none are located within 25 feet. In addition, **APM NOI-1** would require the project to monitor vibration-inducing construction activities within 25 feet of vibration-sensitive structures. Therefore, potential cumulative impacts would be less than significant.

The Proposed Project would not be expected to contribute to cumulatively significant impacts relating to airport noise because the Proposed Project's impacts in this regard would not be cumulatively considerable. That is to say, the Proposed Project's impacts relating to the Skyline terminal's proximity to the San José Mineta International Airport would not increase or otherwise alter similar impacts from any other project similarly located in close proximity to the airport.

Construction of the Proposed Project would partially overlap with construction of some of the cumulative projects listed in **Appendix 7-A**, which could further increase noise levels in the surrounding area(s). Construction for the Proposed Project transmission lines would move in a linear fashion and would not affect receptors for long periods of time (defined by the City as one year [12 months]). Any cumulative noise impacts would be less than significant. While the proposed high-voltage direct current (HVDC) terminal sites and the existing substation sites would involve longer construction schedules, they do not occur in close proximity to potential cumulative projects and would be less likely to create cumulatively considerable noise should multiple projects have overlapping construction. Therefore, the cumulative construction noise levels would not be anticipated to create cumulatively significant impacts. As such, the Proposed Project's incremental contribution to potential cumulative noise and vibration impacts would be less than significant.

**Public Services**. Cumulative impacts on public services, including fire and police protection, could result when past, present, and reasonably foreseeable future projects combine to increase demand on public services facilities such that additional facilities must be constructed to maintain acceptable levels of service, and the construction of such facilities would result in a physical impact on the environment.

As discussed in **Section 5.15**, *Public Services*, the Proposed Project would not permanently affect service ratios, response times, or other objectives for fire and police protection services in the area. Construction is not anticipated to permanently affect response times because construction lane or road closures would be temporary and would be coordinated with local jurisdictions and emergency service providers, and traffic control would be implemented, as necessary and described in **Section 5.17**, *Transportation*.

The cumulative projects listed in **Appendix 7-A** would have construction workers on-site, which could incrementally increase the potential need for fire or medical resource services if an emergency were to occur. However, the likelihood of an emergency is low, and the likelihood of simultaneous emergencies at multiple construction sites would be even lower. Additionally, because the increased need would be temporary, no new or physically altered public service

facilities would be required to meet demand. During operation, the Proposed Project would not require regular oversight, service, or management. The facilities would be remotely operated with no permanent workforce on-site. This minimizes the number of public services that would be required during operation.

Therefore, the Proposed Project's incremental contribution to cumulative public services impacts would not be cumulatively considerable and would be less than significant.

**Recreation**. A significant cumulative impact on recreation could result if the Proposed Project were to contribute to an increased use of existing neighborhood and regional parks causing substantial deterioration of recreational facilities, require construction or expansion of recreational facilities, prevent access to a designated recreational facility, substantially change the character of a recreational area, or damage recreational trails and facilities. The Proposed Project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse effect on the environment. Therefore, cumulative impacts regarding that criterion are not evaluated.

The Proposed Project would not increase the use of recreational resources identified in **Section 5.16-1**, *Environmental Setting* that are near the Proposed Project such that physical deterioration would occur due to the quantity of existing local parks and the short construction duration. Operation and maintenance (O&M) activities associated with the Proposed Project would not change, reduce, or prevent access to these designated recreation resources or areas because the transmission line would be constructed underground and the area surrounding it would be restored after construction. The Proposed Project would not result in a substantial change to the character of the recreational areas, as the proposed Grove terminal site is located in close proximity to industrial areas and the existing PG&E Metcalf substation, and would not be considered to substantially change the character of the recreational uses in the area. The proposed Metcalf to Grove 500 kV transmission line would be constructed within and/or along an approximately 0.8-mile portion of the Coyote Creek Trail within Coyote Creek Parkway. Within this portion of Coyote Creek Trail, approximately 0.5 mile would be relocated approximately 240 to 540 feet to the north, away from Coyote Creek, and the associated riparian area on Santa Clara County Parks land. In addition, the proposed Metcalf to Grove 500 kV transmission line would be constructed underground within 0.02 mile of the trail immediately east of the Grove terminal site. However, as discussed in **Section 3.7.3.2**, *Site Restoration*, upon completion of construction activities, LS Power would restore the impacted portion of the trail to preconstruction conditions in accordance with **APM REC-3**. Implementation of **APMs REC-1** through **REC-3** would ensure that impacts under all criteria remain less than significant.

Several cumulative projects identified in **Appendix 7-A** are located near the Proposed Project area and identified recreational resources, such as Tribute Hotel, Block 8, and Communications Hill. However, these cumulative projects are either in construction or likely would have construction completed prior to initiation of the Proposed Project construction. The Metcalf Substation Circuit Breaker #292 Upgrade and Casona-Metcalf 230 kV Line Limiting Elements Removal are located near the Coyote Creek Trail; however, construction activities for these projects would remain within the existing Metcalf substation site and would not impact the trail or other recreational resources. In addition, all cumulative projects would be required to mitigate for impacts to recreation, and it is anticipated that other projects would be subject to similar measures, as well as the applicable federal, state, and local laws and regulations that protect recreational facilities. Therefore, the Proposed Project's incremental contribution to cumulative recreation impacts would not be cumulatively considerable and would be less than significant.

**Transportation**. The cumulative assessment of transportation impacts includes existing traffic volumes, project-generated construction traffic, operational transportation, and traffic from future projects on roads and highways in the Proposed Project vicinity.

As shown in **Section 5.17**, the anticipated peak vehicle trips associated with construction of the Proposed Project would represent 0.002 percent of the annual average daily traffic (AADT) at the nearest roadway junctions (on a temporary basis). The implementation of a Traffic Control Plan (TCP) (**APM TRA-1**) would further reduce impacts to less-than-significant levels. Cumulative traffic impacts could occur during construction from related projects having overlapping construction timeframes, particularly if the related projects generated traffic on the same roads at the same time as the Proposed Project. Most of the projects listed in **Appendix 7-A** would partially overlap with construction of the Proposed Project and would likely be subject to regulations that would require the preparation of a TCP. Cumulative traffic impacts would be less than significant given the temporary, short duration of the anticipated construction overlap with other projects. The Proposed Project's contribution to construction traffic would be minimal, and all projects would be required to implement similar traffic control measures required by the local jurisdictions. Temporary bus stop closures may be required as a result of traffic control activities along Monterey Road, and any bus stop closures would be coordinated with Santa Clara Valley Transportation Authority (VTA) in advance to ensure its patrons are not exposed to potentially hazardous conditions resulting from construction activities taking place in the vicinity of a bus stop (**APM TRA-2**). Furthermore, any damage to public roads, including any damage from vehicle traffic, would be restored to pre-project conditions following construction in accordance with **APM TRA-3**.

Any projects that add access (driveways, streets) are required to provide access for emergency vehicles (including adequate turning radius). Similarly, construction zones must provide emergency vehicle access to and, if applicable, through the construction zone at all times. Thus, there would be no adverse effects on emergency access at a particular site. Emergency access along the road network may be slightly affected by cumulative construction traffic if vehicles are not able to move off the road quickly to allow emergency vehicles to pass by. However, the Proposed Project's contribution to construction traffic is minimal, and all projects would be required to implement a traffic control plan that would address emergency vehicle access. Each cumulative project would need to coordinate with VTA in advance if they would result in impacts to bus stops, thereby reducing the potential for cumulative impacts to public transportation. Furthermore, each individual cumulative project would be required to address any damage to public roads generated by reducing the potential for cumulative hazardous traffic conditions. In addition, construction traffic would be temporary and would not permanently affect transportation issues such that a conflict with a program, plan, or other regulations would occur.

Therefore, the Proposed Project's incremental contribution to cumulative transportation impacts would not be cumulatively considerable and would be less than significant.

**Tribal Cultural Resources**. A cumulatively considerable impact on TCRs could result if the Proposed Project's incremental contribution to significant cumulative TCR impacts would be considerable.

As discussed in **Section 5.18**, *Tribal Cultural Resources*, there are no recorded TCRs within the geographic scope; however, potentially unrecorded subsurface TCRs are indicated by the positive Sacred Lands File (SLF) search result and information provided by Tribal contacts during

outreach. Therefore, **APMs CUL-1** through **CUL-5, TCR-1**, **TCR-2**, and PG&E **BMPs CULT-1** through **CULT-5** would be implemented to reduce potential impacts to less-than-significant levels.

The cumulative projects identified in **Appendix 7-A** are located within a similar area as the Proposed Project and have the potential to uncover TCRs during ground disturbing activities. However, all projects are required to comply with state regulations that protect TCRs. In addition, impacts to TCRs are site-specific, and as such are not expected to combine with the development of other projects to cumulatively increase the risk of impacting TCRs. Potential impacts are evaluated on a case-by-case basis. The Proposed Project includes APMs to ensure impacts to any TCRs within the Proposed Project area are less than significant. Therefore, the Proposed Project's incremental contribution to cumulative TCR impacts would not be cumulatively considerable and would be less than significant.

**Utilities and Service Systems**. Cumulative impacts to utilities or service systems have the potential to occur within the utility service areas if multiple projects have a combined impact on local utility services or infrastructure. At the project level, there were determined to be no impacts related to wastewater treatment or solid waste; as such, cumulative impacts for these issues are not evaluated.

As discussed in **Section 5.19**, the Proposed Project would require the temporary use of utilities such as water, wastewater facilities, and electric power during construction, and runoff would be managed by a stormwater detention system. Groundwater is proposed to be used during construction at the Grove terminal site; however, proposed water use would be lower than the existing water demand for irrigation and would not be cumulatively considerable. The proposed new water line to serve the existing PG&E Metcalf substation would meet existing operational demands and would not create or allow for a significant change in water demand at the substation site. In addition, construction would generate solid waste that would be disposed of in a local landfill or another approved facility in accordance with applicable federal, state, and local laws. Based on the anticipated landfill capacity described in **Section 5.19.2**, *Environmental Setting*, sufficient capacity would be available to handle disposal of waste generated by the Proposed Project during construction. The cumulative projects listed in **Appendix 7-A** and within the local landfill service areas would be required to comply with all applicable federal, state, and local laws regarding solid and hazardous waste, including, but not limited to, the California Integrated Waste Management Act of 1989 which has set reduction rates for the amount of solid waste sent to landfills. Therefore, the total volume of waste that would be landfilled under the cumulative scenario is not expected to exceed the permitted capacity of available landfills.

The cumulative projects listed in **Appendix 7-A** would also require water and electric power during construction and would generate wastewater. The use of electric power during construction of the Proposed Project and cumulative projects would not be a substantial increase in usage from existing levels and would be temporary. Operational electrical power requirements of the Proposed Project would be minor and would be served via existing local PG&E distribution lines that have the capacity to serve all projects in the area. The Proposed Project would not require large quantities of water during operations and would not generate wastewater. Potential cumulative impacts would therefore be less than significant.

Therefore, the Proposed Project's incremental contribution to cumulative utilities and service systems impacts would not be cumulatively considerable and would be less than significant.

## 7.2 GROWTH-INDUCING IMPACTS

### 7.2.1 GROWTH-INDUCING IMPACTS

Growth-inducing impacts per the California Public Utilities Commission (CPUC) CEQA Guidelines (CPUC, 2019) consider ways in which a project could induce growth. The analysis considers if the Proposed Project would foster any economic or population growth either directly or indirectly in the surrounding environment, increase population that would tax existing community services, remove obstacles to population growth, and/or encourage and facilitate other activities that would cause population growth and that could significantly affect the environment, either individually or cumulatively.

The California Independent System Operator (CAISO) 2021-2022 Transmission Plan identified a need for increased resource development driven by numerous factors, including the escalating need to decarbonize the electricity grid because of emerging climate change impacts, the higher electricity forecasts driven by expected electrification of transportation and other carbon-emitting industries, and greater than anticipated impacts of peak loads shifting to later-day hours when solar resources are not available (CAISO, 2022). The Proposed Project will address the CAISO-identified reliability issues and would provide system reliability benefits for the Greater Bay Area. The primary objective of the Proposed Project is to resolve several reliability concerns, including multiple near-term and long-term overloads identified in the San José area 115 kV transmission system. Additionally, the Proposed Project provides benefits in reducing local capacity requirements in the San José sub-area and overall Greater Bay Area that reduces reliance on the local gas-fired generation.

As discussed above and as described in more detail in **Section 2.1.1**, *Purpose and Need*, the Proposed Project would provide a range of important reliability and economic benefits to the transmission system in the Proposed Project area. At the same time, the system reliability and economic benefits resulting directly and indirectly from the Proposed Project are not expected to foster economic or population growth, remove obstacles to population growth, or otherwise encourage or facilitate activities that would translate into significant environmental effects, whether considered individually or cumulatively.

Considering potential effects on economic growth, the Proposed Project would improve the overall transmission system capability to adequately serve existing and forecasted load demand. However, it does not increase power supplies on the California electric grid but rather the Proposed Project only moves power controllably and efficiently around the system. This means that while the Proposed Project does not necessarily drive economic growth, it has the ability to support economic growth within certain portions of the San José area where electric power access is currently constrained, shifting that capability from less developed areas where electric power access may currently be more available. From this standpoint, the Proposed Project may support local economic growth through in-fill development and redevelopment that may have otherwise taken place in less developed, greenfield areas. As a result of this shifting and rebalancing, economic growth benefits are likely to net to a balance regionally and impacts are considered less than significant.

In terms of the Proposed Project's effects on fostering population growth in the area, the Proposed Project would primarily draw from the existing workforce during construction and operation. The peak employment during construction is anticipated to be approximately 250 workers per day, but, on average, the workforce on-site would be less. The workers would likely commute from the

Greater Bay Area at an average one-way distance of approximately 15 miles. The labor demands of the Proposed Project would be met by existing LS Power-affiliate employees, by hiring specialty construction and electrical contractors who already reside in the surrounding areas, or by hiring specialty construction and electrical contractors from outside the local area who may temporarily reside in the vicinity of the Proposed Project while completing their roles in the construction process. However, such non-local specialty workers are likely to travel from job to job and stay in the area only for the construction phase in which they are involved. During operations, the Proposed Project would be remotely operated with no permanent workforce on-site and one local direct position expected for O&M. Given the construction and O&M work force expectations, the Proposed Project would not induce significant or permanent direct population growth through employment.

Evaluating the Proposed Project's effects on existing community services, construction and operation of the Proposed Project would not create substantial direct increases in population as explained above. The temporary construction and limited permanent Proposed Project work forces would not tax existing community services. The majority of the construction work force would be fulfilled by the local (Greater Bay Area) workforce such that existing community services are already serving this population. In terms of direct effects, the number of Proposed Project construction workers who would visit the area would be too small to drive a need for new employees to be hired in service businesses or affect obstacles to population growth. Proposed Project operation would not provide substantial new employment or introduce an increase in population that would tax existing community service facilities, including fire, police, hospitals, or schools. Instead, the Proposed Project would generate a significant new property tax base that would help to fund these community services without the increased population burdens of typical housing or commercial developments. Therefore, impacts from direct population growth related to Proposed Project operations would be less than significant.

Also as stated above, a majority of the planned load growth and physical development of the San José area occurs within existing developed areas. As shown in **Figure 7-1** and **Appendix 7-A**, the San José area is undergoing substantial in-fill development and redevelopment. These areas are currently served by existing utilities and public services. While the Proposed Project would allow for forecasted load growth and planned development, the impact to existing utilities and public services would not be significant. Therefore, the Proposed Project would not directly cause a population increase and would not induce growth by direct or indirect employment that would tax the existing community services. Impacts to existing community and public services would be less than significant.

The Proposed Project would not directly remove any obstacles to population growth. Rather, the Proposed Project would improve the existing transmission system, which would allow for more efficient supply of power to the area while also supporting continued integration of clean energy. While the Proposed Project would provide important reliability and economic benefits, the Proposed Project is not expected to directly or indirectly facilitate other activities that would cause population growth that would significantly affect the environment. The City of San José and County of Santa Clara planning documents already anticipate and permit a certain level of growth in the area based on regional population projections, and the Proposed Project would not affect anticipated growth.

Although the Proposed Project would improve system reliability that would benefit both existing and planned growth in the City of San José and County of Santa Clara, the Proposed Project is not expected to directly or indirectly support new planned development in the Greater Bay Area

or otherwise support any growth-related activities that could lead to a significant effect on the environment. While the Proposed Project would facilitate reliable operation of the transmission system in the electrical proximity of the existing PG&E San Jose B and Metcalf substations, it would not directly induce population growth or create new demand because the proposed HVDC terminal and transmission facilities would support the existing regional transmission system for existing customer demand and forecasted electrical load demand. O&M of the Proposed Project would not provide substantial new jobs nor require development of new housing and, therefore, would not induce, either directly or indirectly, substantial population growth in the area. Therefore, while the Proposed Project would not induce growth or remove obstacles to population growth in the area, it would allow for reliable and efficient delivery of electricity which would help accommodate projected electrical load in the area and allow for increased utilization of clean energy. For all these reasons, the Proposed Project would have less-than-significant growth-inducing impacts.

# 8 LIST OF PREPARERS

## 8.1 LIST OF PREPARERS

| Team Member | Project Role/Sections Prepared |
|---|---|
| ***LS Power Grid California, LLC*** | |
| David Wilson | Vice President, Environmental |
| Dustin Joseph | Director of Environmental Permitting |
| Casey Carroll | Vice President |
| Jacob Diermann | Senior Project Manager |
| Brian Coughlin | Transmission Line Engineering Manager |
| Eric Stauffer | Substation Engineering Manager |
| ***Heritage Environmental Consultants, LLC*** | |
| Pat Golden | QA/QC<br>5.4 Biological Resources<br>Appendix 5.4-A Biological Resources Technical Report |
| Scott Albrecht | 5.4 Biological Resources<br>Appendix 5.4-A Biological Resources Technical Report |
| ***KP Environmental, Inc.*** | |
| Josh Taylor | Project Manager<br>QA/QC<br>3.0 Proposed Project Description<br>4.0 Description of Alternatives<br>5.3 Air Quality<br>5.8 Greenhouse Gas Emissions<br>5.9 Hazards, Hazardous Materials, and Public Safety<br>5.13 Noise<br>6.0 Comparison of Alternatives<br>7.0 Cumulative and Other CEQA Considerations |
| Elizabeth Doalson | QA/QC<br>2.0 Introduction<br>3.0 Proposed Project Description<br>5.1 Aesthetics<br>5.2 Agriculture and Forestry Resources<br>5.4 Biological Resources<br>5.5 Cultural Resources<br>5.7 Geology, Soils, and Paleontological Resources<br>5.10 Hydrology and Water Quality<br>5.11 Land Use and Planning<br>5.12 Mineral Resources<br>5.14 Population and Housing<br>5.15 Public Services<br>5.16 Recreation<br>5.17 Transportation<br>5.18 Tribal Cultural Resources<br>5.19 Utilities and Service Systems<br>5.20 Wildfire<br>7.0 Cumulative and Other CEQA Considerations |
| Sylvia Palomera | 5.2 Agriculture and Forestry Resources<br>5.6 Energy<br>5.10 Hydrology and Water Quality<br>5.11 Land Use and Planning<br>5.15 Public Services<br>5.17 Transportation<br>5.19 Utilities and Service Systems |

| | |
|---|---|
| Nathan Busch | 2.0 Introduction<br>4.0 Description of Alternatives<br>5.1 Aesthetics<br>5.7 Geology, Soils, and Paleontological Resources<br>5.9 Hazards, Hazardous Materials, and Public Safety<br>5.12 Mineral Resources<br>5.14 Population and Housing<br>5.15 Public Services<br>5.16 Recreation<br>5.17 Transportation<br>5.20 Wildfire<br>5.21 Mandatory Findings of Significance<br>7.0 Cumulative and Other CEQA Considerations |
| Elyssa Figari | QA/QC<br>5.1 Aesthetics<br>5.2 Agriculture and Forestry Resources<br>5.6 Energy<br>5.7 Geology, Soils, and Paleontological Resources<br>5.9 Hazards, Hazardous Materials, and Public Safety<br>5.10 Hydrology and Water Quality<br>5.11 Land Use and Planning<br>5.12 Mineral Resources<br>5.15 Public Services<br>5.16 Recreation<br>5.17 Transportation<br>5.19 Utilities and Service Systems |
| Emily Critchfield | 5.7 Geology, Soils, and Paleontological Resources<br>5.10 Hydrology and Water Quality<br>5.17 Transportation<br>5.20 Wildfire |
| Brooke Blandino | 1.0 Executive Summary<br>3.0 Proposed Project Description<br>5.2 Agriculture and Forestry Resources<br>5.6 Energy |
| Kaylan Lamb | 5.1 Aesthetics<br>5.7 Geology, Soils, and Paleontological Resources<br>5.9 Hazards, Hazardous Materials, and Public Safety<br>5.10 Hydrology and Water Quality<br>5.11 Land Use and Planning<br>5.12 Mineral Resources<br>5.14 Population and Housing<br>5.15 Public Services<br>5.17 Transportation<br>5.19 Utilities and Service Systems<br>5.20 Wildfire<br>6.0 Cumulative Impacts and Other CEQA Considerations |
| Krystina Oberhammer | 5.4 Biological Resources<br>7.0 Cumulative and Other CEQA Considerations |
| Sarah Justus | QA/QC<br>5.10 Hydrology and Water Quality |
| Ileana Bradford | GIS<br>Appendix 1.0-A Figures |
| Susan Westhouse | GIS<br>Appendix 1.0-A Figures |
| Rachel Quintel | GIS<br>Appendix 1.0-A Figures |
| Samantha Stotts | Technical Editor |
| Mark Button | 5.1 Aesthetics (Simulations) |

| | |
|---|---|
| Nick Mathis | 5.9 Hazards, Hazardous Materials, and Public Safety |
| ***Ldn Consulting, Inc.*** | |
| Jeremy Louden | 5.3 Air Quality<br>5.8 Greenhouse Gas Emissions<br>5.13 Noise<br>Appendix 5.3-A Air Quality Assessment<br>Appendix 5.8-A Greenhouse Gas Screening Letter<br>Appendix 5.13-A Noise Results Memorandum |
| ***PanGIS*** | |
| Doug Mengers | 5.5 Cultural Resources<br>5.18 Tribal Cultural Resources<br>Appendix 5.5-A Cultural Resources Technical Report<br>Appendix 5.18-A Sacred Lands File Search Results |
| ***San Diego Natural History Museum*** | |
| Thomas Demere | Appendix 5.7-A Paleontological Resources Technical Report |
| Katie McComas | Appendix 5.7-A Paleontological Resources Technical Report |
| ***TSS Consultants, Inc.*** | |
| Tad Mason | Appendix 5.20-A Wildfire Behavior Modeling Report |
| Steven Daus | Appendix 5.20-A Wildfire Behavior Modeling Report |

# 9.0 REFERENCES

## 9.1 REFERENCE LIST

The following section is organized to include all references cited in the PEA by section.

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## 6.0 COMPARISON OF ALTERNATIVES

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