

FINAL

Mitigated Negative Declaration and Supporting Initial Study for Silicon Valley Power's

South Loop Reconfigure Project



Lead Agency:



Technical Assistance by:



June 2020

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and Supporting Initial Study
for
Silicon Valley Power's
South Loop Reconfigure Project

Lead Agency:

Silicon Valley Power
881 Martin Avenue
Santa Clara, CA 95050

Technical Assistance by:

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June 2020

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List of Acronyms

ACE	Altamont Commuter Express
ADT	Average daily traffic
APLIC	Avian Power Line Interaction Committee
APM	Applicant Proposed Measure
ARB	Air Resources Board
AST	Aboveground storage tank
ATCM	Airborne Toxic Control Measures
ATV	All-terrain vehicle
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
BMP	Best management practice
Cal/EPA	California Environmental Protection Agency
CARB	California Air Resources Board
CBC	California Building Code
CBRNE	Chemical, Biological, Radiological, Nuclear, and Explosive
CCJPA	Capitol Corridor Joint Powers Authority
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CGS	California Geological Survey
CIWMB	California Integrated Waste Management Board
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	Carbon monoxide
CRHR	California Register of Historical Resources
CVC	California Vehicle Code
CWA	Clean Water Act
DHS	Department of Health Services
DOC	California Department of Conservation
DPM	Diesel particulate matter
DPR	Department of Pesticide Regulation
DTSC	Department of Toxic Substance Control
EHC	Environmental Health Criteria
EMF	Electric and magnetic fields
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency

FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHSZ	Fire Hazard Severity Zone
FMMP	Farmland Mapping and Monitoring Program
GHG	Greenhouse gas
HCP	Habitat conservation plan
HFC	hydrofluorocarbon
HSWA	Hazardous and Solid Waste Act
HWCL	Hazardous Waste Control Law
IARC	International Agency for Research on Cancer
IBC	International Building Code
ICC	International Code Council
IEEE	Institute of Electrical and Electronics Engineers
IS	Initial Study
IWMB	Integrated Waste Management Board
JPB	Joint Powers Board
MBTA	Migratory Bird Treaty Act
MMRP	Mitigation Monitoring and Reporting Program
MND	Mitigated Negative Declaration
MRR	Mandatory reporting rule
MRZ	Mineral resource zone
NCCP	Natural Community Conservation Plan
NCP	National Contingency Plan
NESC	National Electrical Safety Code
NIMS	National Incident Management System
NPDES	National Pollutant Discharge and Elimination System
NPL	National Priorities List
OEHHA	Office of Environmental Health Hazard Assessment
OHWM	Ordinary High Water Mark
OMR	Office of Mine Reclamation
PERP	Portable Equipment Registration Program
PFC	Perfluorocarbon
PM10	Particulate matter (less than 10 microns in diameter)
PM2.5	Fine particulate matter (less than 2.5 microns in diameter)
PRC	Public Resources Code
PTC	Permit to Construct
RCRA	Recovery Act of 1976
ROG	Reactive organic gases
ROW	Right-of-way
RPS	Renewable Portfolio Standard
RWF	Regional Wastewater Facility

RWQCB	Regional Water Quality Control Boards
SARA	Superfund Amendments and Reauthorization Act
SCFD	Santa Clara Fire Department
SCPD	Santa Clara Police Department
SDAPCD	San Diego Air Pollution Control District
SEMS	Standardized Emergency Management System
SFHA	Special Flood Hazard Area
SMARA	Surface Mining and Reclamation Act of 1975
SMGB	State Mining and Geology Board
SR	State Route
SRRE	Source Reduction Recycling Element
SVP	Silicon Valley Power
SWGS	Solid Waste Generation Study
SWPP	Storm Water Pollution Prevention Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic air contaminant
TCR	Tribal Cultural Resource
TIS	Traffic Impact Studies
TMDL	Total Maximum Daily Load
TSP	Tubular steel pole
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	Underground storage tank
VOC	Volatile organic compounds
VTA	Valley Transportation Authority
WDR	Waste Discharge Requirement
WHO	World Health Organization
WPCP	Water Pollution Control Plant

FINAL

Mitigated Negative Declaration

Silicon Valley Power's South Loop Reconfigure Project

1. Mitigated Negative Declaration

1.1 Project Information

Project: South Loop Reconfigure Project
City of Santa Clara, Santa Clara County, California

Project Sponsor: Silicon Valley Power
881 Martin Avenue
Santa Clara, CA 95050
(408) 615-6610

1.2 Introduction

Silicon Valley Power (SVP) is proposing to construct approximately 3.5 miles of new 60 kilovolt (kV) overhead transmission line within the northeastern area of the City of Santa Clara. Pursuant to the California Environmental Quality Act (CEQA), SVP must prepare an Initial Study (IS) for the proposed project to determine if any significant adverse effects on the environment would result from project implementation. The IS utilizes the significance criteria outlined in Appendix G of the CEQA *Guidelines*. If the IS for the project indicates that a significant adverse impact could occur, SVP would be required to prepare an Environmental Impact Report.

According to Article 6 (Negative Declaration Process) and Section 15070 (Decision to Prepare a Negative Declaration or Mitigated Negative Declaration) of the CEQA *Guidelines*, a public agency shall prepare or have prepared a proposed negative declaration or mitigated negative declaration for a project subject to CEQA when:

- (a) *The initial study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or*
- (b) *The initial study identifies potentially significant effects, but:*
 - (1) *Revisions in the project plans or proposals made by, or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and*
 - (2) *There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.*

Based on the analysis in the Initial Study, it has been determined that all project-related environmental impacts could be reduced to a less than significant level with the incorporation of feasible mitigation measures. Therefore, adoption of a Mitigated Negative Declaration (MND) will satisfy the requirements of CEQA. The mitigation measures included in this MND are designed to reduce or eliminate the potentially significant environmental impacts described in the Initial Study. Mitigation measures are structured in accordance with the criteria in Section 15370 of the CEQA *Guidelines*.

1.3 Project Description

SVP is proposing to construct approximately 3.5 miles of new single and double circuit 60 kilovolt (kV) overhead transmission line segments along the East and South Transmission Line Loops within the northeastern area of the City of Santa Clara. In addition to the new line, approximately 0.2 miles of existing 60 kV line would be reconducted¹ and approximately 0.3 miles of existing 60 kV line would be transferred and underbuilt on the new structures and the existing structures would be removed. SVP's primary objective of the proposed project is to shift the electrical load demand that is currently being seen on the South Loop Circuit to the East Loop Circuit to increase capacity and system reliability.

The northernmost segment of new power line would begin at the Kifer Substation, located near the corner of Central Expressway and Lafayette Streets, and the proposed routes would continue to the De La Cruz Substation at the southeastern end of the project area, which is located on Mathew Street. The transmission line would also be routed to several other existing substations located along or near the transmission line corridor, including Fiberglass, Walsh, and Mathew Substations.

The majority of the new 60 kV transmission line would be constructed along the following city streets in areas where existing power lines do not currently exist: Lafayette Street, Mathew Street, Martin Avenue and De La Cruz Boulevard. The remaining segments of the proposed project would be along routes that have existing distribution power lines and/or telecommunication lines.

Construction is estimated to take approximately 6 months and be completed by the end of 2020.

1.4 Environmental Determination

The Initial Study was prepared to identify the potential environmental effects resulting from proposed project implementation, and to evaluate the level of significance of these effects. The Initial Study relies on information provided by SVP, project site reconnaissance by the Aspen environmental team in April, June and November 2017, comments received during the scoping period and at the project scoping meeting on November 9, 2017, and other environmental analyses.

Based on the Initial Study analysis, mitigation measures are identified for adoption to ensure that impacts of the proposed project would be less than significant. SVP has agreed to implement all of the recommended mitigation measures as part of the proposed project.

Implementation of the following mitigation measures would avoid potentially significant impacts identified in the Initial Study or reduce them to less than significant levels.

¹ "Reconducting" means that new and larger capacity conductors (the wires that carry electricity) would be installed primarily on the existing transmission poles.

Mitigation Measures for Construction-Phase Air Quality

- MM AQ-1** **Implement Basic Construction Air Quality Mitigation.** The project shall ensure that basic construction emissions control measures are implemented as “Best Management Practices,” as follows:
- All exposed soil surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
 - All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
 - All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
 - All vehicle speeds on unpaved roads shall be limited to 15 mph.
 - All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
 - Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
 - All construction equipment shall be maintained and properly tuned in accordance with manufacturer’s specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
 - Post a publicly visible sign with the telephone number and person to contact at SVP regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD’s phone number shall also be visible to ensure compliance with applicable regulations.

Mitigation Measures for Nesting Birds

- MM BIO-1** **Biological Monitoring.** A qualified biologist will be assigned to the project and will monitor the project periodically. The qualified biologist will be the point of contact for any employee or contractor who might inadvertently kill or injure a special-status species or anyone who finds a dead, injured, or entrapped individual. The qualified biologist or biological monitor shall have the authority and responsibility to halt any project activities that are not in compliance with applicable mitigation measures, APMs, permit conditions, or other project requirements, or will have an unauthorized adverse effect on biological resources.
- MM BIO-2** **Worker Environmental Awareness Training.** Prior to construction, a construction employee education program will be conducted in reference to all sensitive environmental resources potentially onsite (e.g., air quality, biological resources, cultural resources, hydrology and water quality, hazardous materials) and the measures associated with their protection (i.e., MMs and applicable laws and regulations).
- MM BIO-3** **Preconstruction Nesting Bird Surveys.** Preconstruction nesting bird surveys shall be conducted by a qualified biologist in the project area no more than 7 days before any

work activities are performed during the nesting season (February 1 to August 31). Preconstruction nesting bird surveys are also required prior to any vegetation removals or trimming during the nesting season. Surveyors will search for all potential nest types (e.g. ground, cavity, shrub/tree, structural, etc.) and determine whether the nest is active. A nest will be determined to be active if eggs or young are present in the nest. Upon discovery of active nests, appropriate impact minimization measures (e.g., buffers or shielding) will be determined and approved by the biologist. Silicon Valley Power's biological monitor will determine the use of a buffer or shield and work may proceed based upon: acclimation of the species or individual to disturbance, nest type (cavity, tree, ground, etc.), and level and duration of construction activity.

In the unlikely event a special-status or listed species is found nesting nearby in this urban environment, CDFW and USFWS will be notified and the City of Santa Clara will be provided with nest survey results, if requested. When active nests are identified, monitoring for significant disturbance to the birds will be implemented.

Mitigation Measures for Tree Protection and Preservation

MM BIO-4 **Tree Protection Plan.** A Tree Protection Plan will be developed by the project arborist and the plan shall be implemented prior to the commencement of any construction activities. The Tree Protection Plan may include, but is not limited to, designation of tree protection zones within which specific construction activities are prohibited; tree protection fencing; special requirements where grading, or vehicle traffic is necessary within a tree protection zone; and/or construction monitoring.

MM BIO-5 **Tree Replacement Plan.** A Tree Replacement Plan will be developed by the project arborist and submitted to the City Arborist and the Director of Community Development for review and approval. Silicon Valley Power will implement one or more of the following measures:

- Trees will be replaced as defined by General Plan Policy 5.3.1-P10 and 5.10.1-P4 and to the satisfaction of the City Arborist.
- An alternative site(s), preferably within a two-mile radius of the project site, will be identified for additional tree planting. Alternative sites may include local parks, schools, and/or street frontages.
- SVP will pay in-lieu fee per required tree replacement to the City of Santa Clara for in-lieu off-site tree planting in the community. The fee amount will be determined by the City's adopted fee schedule at the time of receiving approval for tree removals. These funds shall be used for tree planting at the required ratio and maintenance of planted trees. A donation receipt for off-site tree planting will be provided to the Director of Community Development prior to issuance of permits.

Mitigation Measure for Previously Unidentified Archaeological and Historical Resources

MM CR-1 **Worker Training and Management of Unanticipated Discoveries of Historical Resources, Unique Archaeological Resources.** SVP shall conduct a worker environmental awareness program (WEAP) for project personnel who might encounter or alter historical resources or important/unique archaeological properties, including construction supervisors and field personnel. The WEAP may include a kickoff tailgate session that describes how to identify cultural resources and what to do if an unanticipated discovery is made during

construction, presents site avoidance requirements and procedures to be followed if unanticipated cultural resources are discovered during project construction, and includes a discussion of disciplinary and other actions that could be taken against persons violating historic preservation laws and SVP policies.

If previously unidentified cultural resources are identified during construction activities, construction work within 100 feet of the find shall be halted and directed away from the discovery until a Secretary of the Interior qualified archaeologist assesses the significance of the resource. The archaeologist, in consultation with the City of Santa Clara, State Historic Preservation Officer, any interested Tribes, and any other responsible public agency, shall make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the finds are found to be eligible to the National or California Registers, qualify as a unique archaeological resource under California Environmental Quality Act Section 21083.2, or are determined to be tribal cultural resource as defined in Section 21074.

Mitigation Measure for Discovery of Human Remains

MM CR-2 Treatment of Human Remains. All human remains discovered are to be treated with respect and dignity. Upon discovery of human remains, all work within 50 feet of the discovery area must cease immediately, nothing is to be disturbed, and the area must be secured. The Santa Clara County Coroner's Office must be called. The Coroner has two working days to examine the remains after notification. The appropriate land manager/owner of the site is to be called and informed of the discovery. If the remains are located on federal lands, federal land managers, federal law enforcement, and the federal archaeologist must be informed as well, due to complementary jurisdiction issues. It is very important that the suspected remains, and the area around them, are undisturbed and the proper authorities called to the scene as soon as possible, as it could be a crime scene. The Coroner will determine if the remains are archaeological/historic or of modern origin and if there are any criminal or jurisdictional questions.

After the Coroner has determined the remains are archaeological/historic-era, the Coroner will make recommendations concerning the treatment and disposition of the remains to the person responsible for the excavation, or to his or her authorized representative. If the Coroner believes the remains to be those of a Native American, he/she shall contact the Native American Heritage Commission (NAHC) by telephone within 24 hours.

The NAHC will immediately notify the person it believes to be the most likely descendant (MLD) of the remains. The MLD has 48 hours to make recommendations to the land owner for treatment or disposition of the human remains. If the descendant does not make recommendations within 48 hours, the land owner shall reinter the remains in an area of the property secure from further disturbance. If the land owner does not accept the descendant's recommendations, the owner or the descendant may request mediation by NAHC.

According to the California Health and Safety Code, six (6) or more human burials at one (1) location constitute a cemetery (Section 8100), and willful disturbance of human remains is a felony (Section 7052).

Mitigation Measure for Seismically Induced Liquefaction

MM G-1 Conduct Geotechnical Investigations for Liquefaction. Because seismically induced liquefaction-related ground failure has the potential to damage or destroy project components, the design-level geotechnical investigations to be performed by SVP shall consider investigations designed to assess the potential for liquefaction to affect the new project poles in the City of Santa Clara where there is high potential for liquefaction-related impacts. Where these hazards are found to exist, appropriate engineering design and construction measures shall be incorporated into the project designs as deemed appropriate by the project engineer. Design measures that would mitigate liquefaction-related impacts could include bigger foundations, installation of flexible bus connections, and/or incorporation of slack in cables to allow ground deformations without damage to structures.

Mitigation Measure for Previously Unidentified Paleontological Resources

MM G-2 Worker Training and Management of Unanticipated Discoveries of Paleontological Resources. In the event that unanticipated paleontological resources or unique geologic resources are encountered during ground-disturbing or other construction activities, a paleontologist must be retained who meets the professional paleontologist qualifications (Society of Vertebrate Paleontology's Standard Procedures, 2010) and has demonstrated experience in carrying paleontological projects to completion. This qualified paleontologist must develop and implement a Paleontological Resources Management Plan (PRMP) for the project area that meets the standards set forth by the Society of Vertebrate Paleontology (2010). This shall include:

- A Worker Environmental Awareness Program (WEAP) wherein all construction personnel are trained on the processes to be followed upon encountering any fossils.
- A monitoring plan for ground disturbing activities that provides the monitor(s) with the authority to temporarily halt or divert equipment. Monitors shall be onsite for any disturbance of sediments with high or unknown paleontological sensitivity. Monitors must have demonstrated sufficient paleontological training and field experience to have acceptable knowledge and experience of fossil identification, salvage and collection methods, paleontological techniques, and stratigraphy.
- A recovery plan for significant fossils that provides for the treatment of specimens to the point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates.
- A specimen identification, analysis, and curation plan that includes identification to the lowest taxonomic level possible; taxonomic, taphonomic, and biostratigraphic analysis; and curation to the standards of the repository where they will be curated.

Mitigation Measure for Hazards and Hazardous Materials

MM HM-1 Hazardous Substance Control and Emergency Response. SVP shall implement its hazardous substance control and emergency response procedures as needed. The procedures identify methods and techniques to minimize the exposure of the public and site workers to potentially hazardous materials during all phases of project construction through operation. They address worker training appropriate to the site worker's role in

hazardous substance control and emergency response. The procedures also require implementing appropriate control methods and approved containment and spill-control practices for construction and materials stored on site. If it is necessary to store chemicals on site, they shall be managed in accordance with all applicable regulations. Material safety data sheets shall be maintained and kept available on site, as applicable.

Project construction will involve soil surface blading/leveling, excavation of up to several feet, and augering to a maximum depth of 30 feet in some areas. No known soil contamination was identified within the project area. 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. 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.

All hazardous materials and hazardous wastes shall be handled, stored, and disposed of in accordance with all applicable regulations, by personnel qualified to handle hazardous materials. The hazardous substance control and emergency response procedures include, but are not limited to, the following:

- Proper disposal of potentially contaminated soils.
- Establishing site-specific buffers for construction vehicles and equipment located near sensitive resources.
- Emergency response and reporting procedures to address hazardous material spills.
- Stopping work at that location and contacting the City Fire Department Hazardous Materials Division immediately if visual contamination or chemical odors are detected. Work will be resumed at this location after any necessary consultation and approval by the Hazardous Materials Division.

SVP shall complete its Emergency Action Plan Form as part of project tailboard meetings. The purpose of the form is to gather emergency contact numbers, first aid location, work site location, and tailboard information.

Mitigation Measure for Impacts to Water Quality

MM HYD-1 SWPPP or Erosion Control Plan Development and Implementation. Following project approval, SVP will prepare and implement a SWPPP, if required by State law, or erosion control plan to minimize construction impacts on surface water and groundwater quality. Implementation of the SWPPP or erosion control plan will help stabilize graded areas and reduce erosion and sedimentation. The plan will designate BMPs that will be adhered to during construction activities. Erosion and sediment control measures, such as straw wattles, covers, and silt fences, will be installed before the onset of winter rains or any anticipated storm events. Suitable stabilization measures will be used to protect exposed areas during construction activities, as necessary. During construction activities, measures will be in place to prevent contaminant discharge.

The project SWPPP or erosion control plan will include erosion control and sediment transport BMPs to be used during construction. BMPs, where applicable, will be designed

by using specific criteria from recognized BMP design guidance manuals. Erosion-minimizing efforts may include measures such as properly containing stockpiled soils.

Erosion control measures identified will be installed in an area before construction begins during the wet season and before the onset of winter rains or any anticipated storm events. Temporary measures such as silt fences or wattles, intended to minimize sediment transport from temporarily disturbed areas, will remain in place until disturbed areas have stabilized. The plan will be updated during construction as required by the SWRCB.

A worker education program shall be established for all field personnel prior to initiating fieldwork to provide training in the appropriate application and construction of erosion and sediment control measures contained in the SWPPP. This education program will also discuss appropriate hazardous materials management and spill response. Compliance with these requirements will be ensured by the on-site construction contractor.

Mitigation Measures for Construction Traffic

MM T-1 Construction Traffic Control Plan. Prior to the start of construction, Silicon Valley Power (SVP) shall prepare and submit a Construction Traffic Control Plan for review and approval to the City of Santa Clara (City) Planning Department for public roads and transportation facilities that would be directly affected by the construction activities and/or would require permits and approvals. SVP shall submit the Construction Traffic Control Plan to the City prior to conducting activities covered in the traffic control permits. The Construction Traffic Control Plan shall include, but not be limited to:

- The locations and use of flaggers, warning signs, lights, barricades, delineators, cones, arrow boards, etc., according to standard guidelines outlined in the Manual on Uniform Traffic Control Devices, the Standard Specifications for Public Works Construction, and/or the California Joint Utility Traffic Control Manual.
- Additional methods to reduce temporary traffic delays and trips during peak travel hours (8:00-10:00 a.m. and 4:00-6:00 p.m.) to the maximum extent feasible.
- Typical access routes between all staging areas and the proposed work areas.
- Defining methods to coordinate with the City throughout construction to minimize cumulative lane disruption impacts should simultaneous construction projects affect shared segments/portions of the circulation system.
- Prior to the start of construction, provide (or identify the timing to provide) the City with methods to comply with all specified requirements.
- Plans to coordinate in advance with emergency service providers to avoid restricting the movements of emergency vehicles. Police departments and fire departments shall be notified in advance by SVP of the proposed locations, nature, timing, and duration of any roadway disruptions, and shall be advised of any access restrictions that could impact their effectiveness. At locations where roads will be blocked, provisions shall be ready at all times to accommodate emergency vehicles, such as immediately stopping work for emergency vehicle passage, providing short detours, and developing alternate routes in conjunction with the public agencies. Documentation of the coordination with police and fire departments shall be gathered prior to the start of construction.

- Plans to coordinate in advance with property owners, if any, that may have limited access to properties due to temporary lane closures. Provisions for ensuring secondary access should be provided.

Mitigation Measure for Unanticipated Tribal Cultural Resources

MM TCR-1 Management of Unanticipated Tribal Cultural Resources. During project-level construction, should subsurface tribal cultural resources be discovered, all activity in the vicinity of the find shall stop and a qualified archaeologist and an authorized tribal representative shall be contacted to assess the significance of the find according to CEQA Guidelines Section 15064.5 and Section 21074. If any find is determined to be significant, the archaeologist shall determine, in consultation with the implementing agency and any local Native American groups expressing interest, appropriate avoidance measures or other appropriate mitigation. Per CEQA Guidelines Section 15126.4(b)(3), preservation in place shall be the preferred means to avoid impacts to tribal cultural resources. Methods of avoidance may include, but shall not be limited to, project reroute or redesign, project cancellation, or identification of protection measures such as capping or fencing. Consistent with CEQA Guidelines Section 15126.4(b)(3)(C), if it is demonstrated that resources cannot be avoided, the qualified archaeologist shall develop additional treatment measures, such as data recovery or other appropriate measures, in consultation with the implementing agency and any local Native American representatives expressing interest in the tribal cultural resource.

A Mitigation Monitoring Plan has been prepared to ensure that the mitigation measures presented above are properly implemented (see Section 6). The plan describes specific actions required to implement each measure, including information on timing of implementation and monitoring requirements.

Based on the analysis and conclusions of the Initial Study, the impacts of the project as proposed by SVP would be mitigated to less than significant levels with the implementation of the mitigation measures presented herein, which have been incorporated into the proposed project.

2. Environmental Determination

2.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” and requiring implementation of mitigation as indicated by the checklist on the following pages.

- | | | |
|---|---|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture & Forestry Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input checked="" type="checkbox"/> Geology/Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Hazards & Hazardous Materials |
| <input checked="" type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input checked="" type="checkbox"/> Transportation | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities/Service Systems | <input checked="" type="checkbox"/> Wildfire | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

2.2 Environmental Determination

On the basis of this initial evaluation:

- I find that the proposed project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.
- I find that the proposed project **MAY** have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.
- I find that the proposed project **MAY** have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

 Jeevan Valath, Project Manager
 Silicon Valley Power

 Date

3. Introduction to the Initial Study

3.1 Proposed Project Overview

Silicon Valley Power (SVP) is proposing to construct approximately 3.5 miles of new single- and double-circuit 60 kilovolt (kV) overhead transmission line segments along the East and South Transmission Line Loops within the northeastern area of the City of Santa Clara. In addition to the new line, approximately 0.2 miles of existing 60 kV line would be reconductored² and approximately 0.3 miles of existing 60 kV line would be transferred and underbuilt on the new structures and the existing structures would be removed. SVP's primary objective of the proposed project is to shift the electrical load demand that is currently being seen on the South Loop Circuit to the East Loop Circuit to increase capacity and system reliability.

3.2 Environmental Analysis

3.2.1 CEQA Process

This Initial Study (IS) has been prepared pursuant to the California Environmental Quality Act (CEQA), the amended State CEQA Guidelines (14 CCR 15000 et seq.). The purpose of the IS is to inform the decision-makers, responsible agencies, and the public of the proposed project, the existing environment that would be affected by the project, the environmental effects that would occur if the project is approved, and proposed mitigation measures that would avoid or reduce environmental effects.

A Mitigated Negative Declaration (MND) has been prepared based on the assessment of potential environmental impacts identified in the IS. All potentially significant impacts associated with the project can be mitigated to a level below significance; therefore, an MND can be adopted by the City of Santa Clara in accordance with Section 21080 of the CEQA Public Resources Code.

3.2.2 CEQA Lead Agency

The City of Santa Clara is the lead agency for review of the project under CEQA because it must make a decision whether to adopt the MND and to approve or deny the proposed project.

3.2.3 Initial Study

The IS presents an analysis of potential effects of the proposed project on the environment. The IS is based on information provided by SVP, project site visits, comments received during the scoping period and at the project scoping meeting on November 9, 2017, and additional research.

Construction activities and project operation could have direct and indirect impacts on the environment. The following environmental parameters are addressed based on the potential effects of the proposed project and potential growth-inducing or cumulative effects of the project in combination with other projects:

² "Reconductoring" means that new and larger capacity conductors (the wires that carry electricity) would be installed primarily on the existing transmission poles.

- Aesthetics
- Agricultural and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gases
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire
- Corona and Induced Current Effects
- Mandatory Findings of Significance

The IS has been organized into the following sections:

- **Section 3: Introduction.** Provides an introduction and overview describing the proposed project and the CEQA process, and identifies key areas of environmental concern.
- **Section 4: Project Description.** Presents the project objectives and provides an in-depth description of the proposed project, including construction details and methods.
- **Section 5: Environmental Analysis and Mitigation.** Includes a description of the existing conditions and analysis of the proposed project's potential environmental impacts, and identifies mitigation measures to reduce potentially significant impacts to less than significant levels.
- **Section 6: Mitigation Monitoring and Reporting Plan.** Includes mitigation measures that SVP must implement as part of the project, actions required to implement these measures, monitoring requirements, and timing of implementation for each measure.
- **Section 7: References.** Lists the sources of information used to prepare the IS.
- **Section 8. Comments and Responses to Comments.** Letters and responses to all public comments submitted on the Draft IS/MND.
- **Appendix A: Proposed Project Route Maps**
- **Appendix B: Drawings of Typical Structures.**
- **Appendix C: List of Preparers.**
- **Appendix D: Tree Survey Report.**
- **Appendix E: Special-status Species.** List of potential Special-status species in the project area.
- **Appendix F: Air Quality and Greenhouse Gas Emissions Calculations**

4. Project Description

4.1 Project Title

South Loop Reconfigure Project

4.2 Lead Agency Name and Address

Silicon Valley Power
881 Martin Avenue
Santa Clara, California 95050

4.3 Lead Agency Contact Person and Phone Number

Jeevan Valath, Project Manager
Senior Electric Utility Engineer
Phone: (408) 615-6609
E-mail: JValath@SantaClaraCA.gov

4.4 Project Location

The proposed project is located in the northeast area of the City of Santa Clara (City), adjacent to the west side of the San Jose International Airport, in Santa Clara County, CA. The proposed project would be located in Sections 27, 34, and 35 within Township 6S, Range 1W.

4.5 Project Sponsor's Name and Address

Silicon Valley Power
881 Martin Avenue
Santa Clara, California 95050

4.6 General Plan Designation

General plan designations within 0.5-mile of the proposed project include: public/quasi-public, low intensity office/R&D, Medium density residential, very low density residential, community mixed use, neighborhood commercial, High intensity office R&D, parks/open space, and community commercial.

4.7 Zoning

Zoning designations within 0.5 mile of the proposed project are medium density, planned development, neighborhood commercial, moderate density multiple dwelling, high density residential, residential duplex, low density multiple dwelling, and thoroughfare commercial.

4.8 Surrounding Land Uses and Setting

Land uses within the project area are primarily heavy and light industrial. The dominant features that intersect with the project are warehouses and industrial development. Existing SVP transmission and distribution power lines are located near and within the project right-of-way (ROW).

4.9 Other Public Agencies Whose Approval is Required

The Applicant may be required to obtain the permits from agencies listed in Table 4-4, Permits and Approvals Necessary for the proposed project (see Section 4.10.6).

4.10 Description of the Project

4.10.1 Overview

SVP is proposing to construct approximately 3.5 miles of new 60 kV single and double circuit transmission line segments along the existing East and South Transmission Line Loops, with the northernmost segment beginning at the Kifer Substation located near the corner of Central Expressway and Lafayette Streets (see Figure 4-1). The proposed routes would continue to the De La Cruz Substation, which is located on Mathew Street. The transmission line would also be routed to several other existing substations located along or near the transmission line corridor, including Fiberglass, Walsh, Mathew and Parker Substations. In addition to the new line, approximately 0.2 miles of existing 60 kV line along the railroad tracks would be reconducted³ and approximately 0.3 miles of existing 60 kV line would be transferred and underbuilt on the new structures along Walsh Avenue and the existing structures would be removed. Please refer to Appendix A (Proposed Project Route) for a map of the proposed transmission segments.

4.10.2 Project Objectives

SVP has been experiencing rapid load growth driven by large data center customers. SVP has conducted studies that show the electrical load on the South and Central Loop 60 kV circuits will continue to grow in the coming years. The studies project that the load growth will result in some of its 60 kV transmission circuits exceeding their designed thermal ratings by 2020. In order to prevent this, SVP is proposing to build new transmission line segments in order to shift electrical load demand currently served by the South Loop Circuit to the East Loop Circuit to increase capacity and system reliability.

4.10.3 Project Components

4.10.3.1 60 kV Transmission Line

The majority of the new 60 kV transmission line would be constructed along the following city streets: Lafayette Street, Mathew Street, Martin Avenue, and De La Cruz Boulevard. The total length of the alignment route is approximately 3.5 miles (approximately 115 poles). and an additional 0.2 miles of existing 60 kV line would be reconducted. Along the north side of Walsh Avenue (0.3 miles), the existing 60 kV line would be transferred and underbuilt on the new structures, and the existing poles (approximately 9 poles) would then be removed. Please refer to Section 4.10.3.2 for further details.

New single circuit tangent transmission structures would consist of either Douglas Fir wood or light duty steel monopoles that are direct embedded in the earth. Typical pole structures are illustrated in Appendix B, Drawings of Typical Structures. Dead-end and angle structures, and tangent structures supporting multiple circuits, would require steel monopoles with a galvanized finish. The pole diameters of the structures are generally 2 feet to 3 feet or less, while custom dead-end poles would have diameters in the range of 4 feet to 6 feet. Typical structure heights are expected to be approximately 55 feet to 75 feet

³ “Reconducting” means that new and larger capacity conductors (the wires that carry electricity) would be installed primarily on the existing transmission poles.

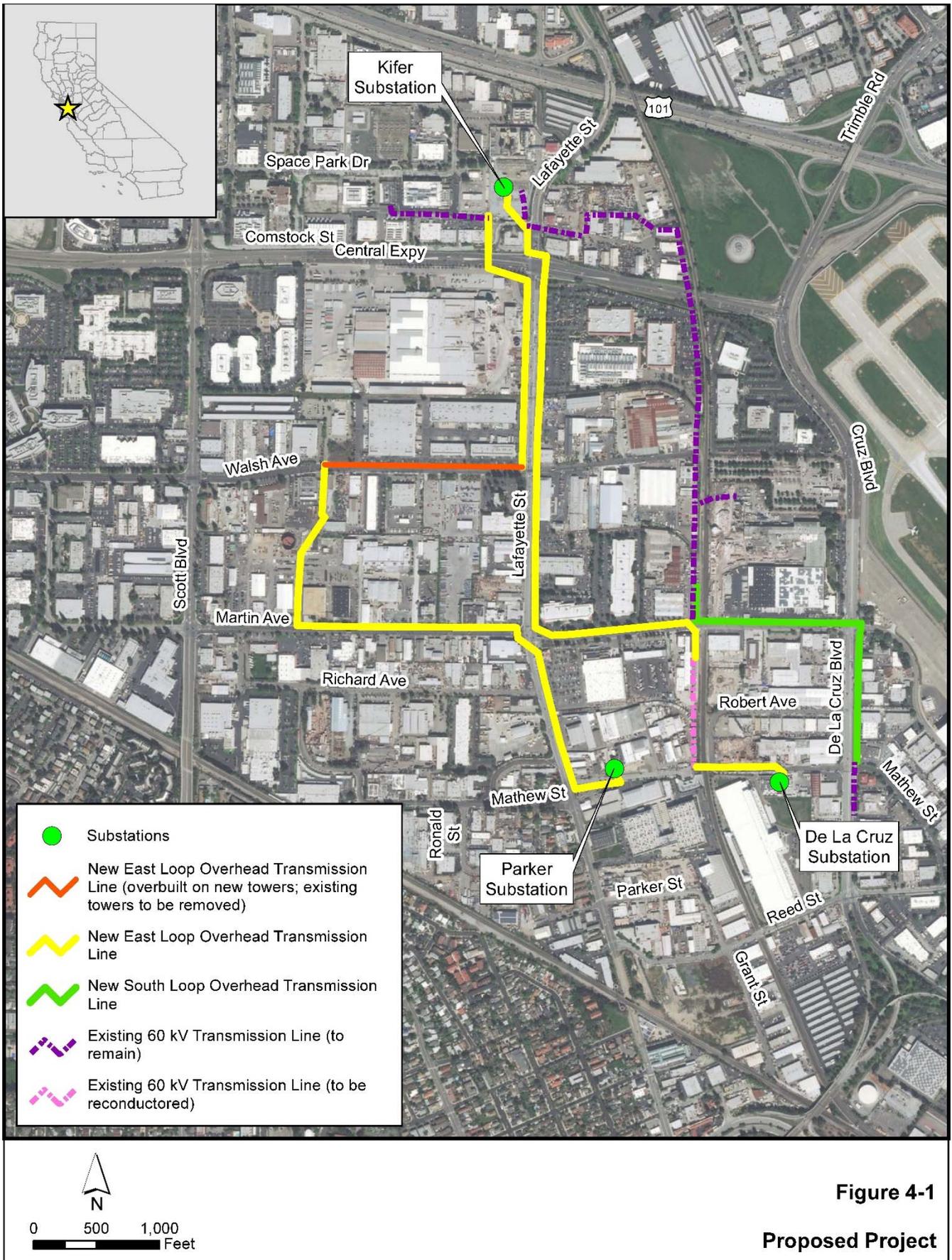


Figure 4-1

Proposed Project

(average height of 65 feet) above ground-level. The distance between poles would vary but would be typically about 250 feet. Appendix B (Typical Structures) illustrates examples of typical structure types that would be used for the project.

Tangent structures (see Figures B-1, B-2 and B-3 in Appendix B) would be embedded directly into the soil approximately 15 feet deep and backfilled with a pre-engineered crushed rock material or concrete slurry. Alternate foundations would be used only if necessary due to poor soil conditions. Self-supporting dead-end and angle structures (see Figures B-4 through B-7 in Appendix B) would require steel-reinforced concrete pier foundations. A typical foundation size is about 5 feet to 8 feet in diameter and can range in depth from 20 feet to 30 feet. The concrete foundations extend above the ground-line by 1 or 2 feet in most cases.

The ROW width required for the transmission line is 50 feet. The ROW width is selected based on the actual width of the structure and its components, the maximum horizontal distance that the conductor wire would blow outwards at mid-span, and the minimum electrical clearance required between the wires and objects such as buildings. The proposed project would adhere to National Electrical Safety Code (NESC) and California Public Utilities Commission (CPUC) General Order 95. Many of the existing power lines in the project vicinity are located along the edges of roadways, such as in landscaped planter areas, the perimeters of parking lots, or in sidewalks. The new transmission structures would follow the edge of roadways.

4.10.3.2 Replacement of Existing Distribution and Telecommunication Lines

Some existing distribution power lines and/or telecommunication lines along the proposed route would be transferred to the new poles to be underbuilt with the 60 kV transmission line. The existing poles would be removed and transported to SVP's stockyard or to an approved disposal site. In some cases, some existing wood poles may be left in place as an intermediate pole located between two new transmission poles. Where existing poles are left in place, the tops of these poles would be cut off, resulting in a shorter pole with cables still attached at the lower levels. All of the existing conductors and cables are expected to be reused for the project.

4.10.3.3 Substations Modifications

Minor modifications would be required at the 6 existing substations affected by this project. The existing substation equipment, and racks that support the new conductors coming into the substations, would remain. Any modifications needed at the substations would occur within the existing fence lines.

4.10.3.4 Reconductoring

Approximately 0.2 miles of existing 60 kV transmission line that is located in an electrical easement on private land that runs parallel to the west side of the UPRR railroad tracks would be reconducted⁴. Although not currently anticipated, pending final engineering, some poles may require modification or replacement to accommodate the new conductors, which would have higher tensions and operate at a higher temperature than the existing conductors.

⁴ "Reconductoring" means that new and larger capacity conductors (the wires that carry electricity) would be installed primarily on the existing transmission poles.

4.10.4 Project Construction Activities

4.10.4.1 Staging Areas

Up to two temporary staging areas would be used during project construction. Staging areas would be located within the project area and would be the assembly point for project personnel. The staging areas would also be the location for: temporary portable bathroom facilities; equipment storage during off work hours and weekends; materials storage; construction trailers; employee parking; and a meeting area as needed for project management.

Staging would occur at existing SVP yards or in areas that are already disturbed. One example of a potential staging area would be SVP's storage yard, located at 1715 Martin Avenue, Santa Clara, CA. The staging area size may vary depending on negotiations with third-party property owners for temporary construction easements or property owner agreements. For the purpose of analysis, each staging area is expected to have a footprint of up to approximately 1 acre.

A secured, fenced location with access by an existing road is preferable. Preparation for site use is expected to include little or no grading at the staging areas aside from minor scraping to achieve an even grade or to remove any weeds that may be present. Gravel or rock may be temporarily added to the staging area as needed to address wet or muddy site conditions or reduce dust or track out from construction equipment. If there is no driveway into a site with a curb, temporary access (steel plates or cold patch over a culvert) may be placed to minimize potential damage to the curb. If there is no fence, a temporary fence would be erected by a contracted fencing supplier. Any temporary fencing would typically be chain link with gates secured by a SVP lock. A typical SVP security light would be installed on site in a downcast position. After project completion, temporary security and access and site stabilization installations would be removed unless the property owner requests that they remain in place.

4.10.4.2 Work Areas

Substations

No new substations would be constructed as part of this project. Minimal work would be needed at the existing substations into which the new 60 kV transmission circuits would connect. The existing substation racks would be used to support the new conductors. All work activities for the substations would take place within the existing fenced areas.

Transmission and Distribution Power Poles

Pole work would include: foundation excavation (i.e., subsurface drilling for either a direct embedded pole or construction of a concrete pier foundation), power pole assembly and installation, and installation of travelers (stringing blocks) to support wire stringing. Some segments of the power line would require transferring wires from existing poles to the newly installed poles and then removing the existing wood poles. Work areas for new poles are expected to be located approximately every 200 to 300 feet within the ROW. Where final design allows, power and distribution pole work would overlap. Final design would determine final pole locations.

Individual work areas would typically include a portion of the adjacent City road ROW in addition to the width of the SVP ROW (50 feet), and extend approximately 50 feet in length. Work areas would be accessed primarily from adjacent paved roads. Construction vehicles and equipment would be staged or parked alongside the road in the project ROW unless other arrangements have been made with the property owner.

Site preparation is not expected to be required for the majority of the project's pole work areas. However, some vegetation and tree removal or tree trimming would be required. Disturbed areas would be restored. Site restoration may include repairing any damage to sidewalks, paved parking areas, roadways, or curbs. Site restoration may also be needed in landscaped planters and lawns.

Project plans include the partial or complete removal of the trees located beneath the proposed transmission line, which is discussed in Section 4.10.4.10 (Vegetation Clearance). Existing distribution power lines along some segments the ROW would be partially removed or relocated and underbuilt on the new structures and the existing poles would be removed.

Pull and Tension

Pull and tension activities, in which the new conductor installed, would require guard structure installation where required (such as at road crossings), pull and tension equipment staging, and temporary pole anchor installation, followed by pulling and tensioning of the conductor. Most pull and tension work areas are expected to be located within the ROW and may be located at most of the larger angle points of the transmission line route. It may be necessary to access areas in the ROW away from a pole work area to support pull and tension activities. Pull and tension site locations are preliminary and are subject to change based on final engineering and other factors. If pulling is required through an angle, or at the start of a new direction of the route, the site may be located outside the ROW or off the end of a ROW corner.

A pull and tension site is typically located at a 1:3 ratio from a pole (pole height determines distance from the pole — for example, the pull and/or tension site for a 50-foot-tall pole would be located approximately 150 feet from the pole location). Pull and tension work areas would typically be the width of the ROW (50 feet) and approximately 150 feet in length.

Guard structures would be installed when the conductor is being pulled across a road or railroad tracks. Guard structures are temporarily installed during construction and removed after stringing of the conductor. A work area of approximately 40 feet by 50 feet would be used to install the guard structures. Final design would determine guard structure work area locations.

Construction vehicles and equipment needed at the pull and tension sites would be staged or parked within the project ROW or alongside access roads. Site preparation would not be needed for the majority of the project's pull and tension sites. Some vegetation removal or tree trimming may be required for vehicle access and to minimize the risk of fire. Site restoration may include repairing any damage to sidewalks, paved parking areas, roadways, or curbs. Site restoration may also be needed in landscaped planters and lawns.

4.10.4.3 Access Roads

Pole work areas along the route during construction and during subsequent operation and maintenance would be parallel and adjacent to existing roads and/or other paved parking areas. One segment of the proposed transmission line is located in an alleyway that is perpendicular to, and located between, Scott Boulevard and Lafayette Street. The alleyway consists of natural ground; however, the majority of its length is accessible from adjacent paved parking areas. Construction equipment may need to access some pole work areas by traveling along the alleyway.

4.10.4.4 60 kV Transmission Line Construction

The following power line construction sections describe activities associated with the new transmission line construction, including associated installation, relocation and/or removal of existing taps, distribution lines, and the shoo-fly.

Pole Transportation

A line truck with trailer and a second transport vehicle (crew cab truck or half ton pickup) would be used to transport construction personnel to a pole work area. A line truck would haul new poles to the site on a trailer and haul away any removed distribution poles. A line truck with trailer would deliver approximately three wood or light-duty steel poles per trip. A line truck with a trailer would likely deliver one tubular steel pole per trip. Typically, a second transport vehicle would accompany the delivery truck during pole staging. Multiple removed distribution poles would likely be transported from work areas as part of the return trip, when feasible.

Distribution Pole Removal

The existing distribution poles to be removed would likely be removed with a small crane. A power outage would be needed while the existing conductors are detached from the pole and while the pole is lifted out of its current location with the crane. Some poles may only have their tops removed; leaving the lower previously underbuild cables in place. In this case, the same crane would remove the pole top after the pole has been cut with a chain saw. All removed poles or pole segments would be loaded onto a trailer and transported to a designated storage or disposal area.

Pole Installation

Expected dimensions for wood poles, light-duty steel poles, and tubular steel poles are provided in Table 4-1, Summary of Approximate Pole Metrics. The line would likely be designed with approximately 22 poles per mile, or approximately 85 poles total. Pole installation would occur during daylight hours. Typically, 4 to 5 truck trips would be required to set a new power pole and remove an old distribution pole from a work area.

Table 4-1. Summary of Approximate Pole Metrics

Structure Feature	Approximate Metrics
Wood Pole and Light-Duty Steel Pole	
Pole diameter	24 in. (typical, wood size varies and is pole height dependent)
Wood pole auger hole depth	10 ft. (typical, wood size varies)
Light-duty steel pole auger hole depth	10 ft. (typical, pole height dependent)
Individual permanent footprint	7 sq.ft. (typical), for an average pole auger diameter of 3 ft.
Approximate number to be installed	61
Average work area at each site	2,500 sq.ft.
Total permanent footprint	Approximately 450 sq.ft.
Tubular Steel Pole	
Diameter	3–6 ft. (typical range, pole height dependent)
Foundation depth	20 to 30 ft. (typical range, pole height dependent)
Individual permanent footprint	50 sq.ft. (typical range), for a typical pole auger diameter of 8 ft.
Approximate number to be installed	24
Average work area at each site	4,000 sq.ft.
Total permanent footprint	Approximately 1,200 sq.ft.

Wood and Light-Duty Steel Poles. Wood poles and light-duty steel poles would be direct buried and would not require foundations. The poles would be placed directly into augered holes. A line truck with a truck-mounted auger would be used to create the holes. The line truck or a pick-up truck would be used to transport crew members to the work area. If the pole is not set immediately after the hole is drilled, the

hole would be covered with plywood or other temporary, solid, heavy covering until the new pole is installed. Once the new pole is set in the drilled hole, an engineered crushed rock material or concrete slurry mix would typically be used as backfill. Soil removed from the new pole hole may be used to backfill holes of removed poles. Soil may be temporarily stockpiled in accordance with applicable best management practices (BMP) until it is used as backfill. Any excess soil from drilling the pole holes would be loaded onto a truck using a skid loader and transported to an approved disposal site. A water truck may be on-site to support dust suppression during ground disturbing work.

Light-duty steel poles would be manufactured in two pieces that are a matched set specific to a pole location. The pole pieces are closed at each end; there are no openings that wildlife could enter. The bottom piece of the pole assembly would be placed in the hole while the top piece has the conductor support hardware attached to it while on the ground. The poles would be assembled by having a truck-mounted crane lift the top piece and lower it onto the lower section. The same backfill material and process used for wood poles, as described above, would also be used for backfilling the void surrounding the light-duty steel pole.

Tubular Steel Poles. Installation of tubular steel poles (TSPs) would include the following steps for site preparation, foundation installation, and pole installation. To prepare the site, the pole location would be staked. The work area would be flagged and required BMPs installed. If required, a crane pad would be prepared, which may require surface blading to create a level surface. TSP foundation installation would include:

- Excavating the hole;
- Installing forms, rebar, and anchor bolts;
- Pouring concrete;
- Removing forms; and
- Grooming the base area, including any landscape restoration.

After the new TSP is installed, any distribution line would be moved to the new pole and the old wood distribution pole would be removed. Excess soil onsite would be feathered around the work area if there is natural ground present and/or transported to an area Service Center or other appropriate facility for disposal.

TSP concrete pier foundations would be approximately 5 to 8 feet in diameter and would extend approximately 20 to 30 feet below the ground surface. A line truck would be used to haul foundation forms, anchor bolts, rebar, and pole structures to work areas. The line truck with a boom would be used to place foundation forms, anchor bolts, and rebar in place prior to pouring concrete for the foundation and to remove the forms following completion of the foundation.

A 4-wheel drive concrete mixer truck capable of delivering 8 yards of concrete would be used to deliver and pour concrete for the TSP foundations. Concrete trucks would not be washed out at pole locations but rather would be rinsed using portable stations established for concrete clean-up at project staging areas. If applicable, a backhoe or skid loader would be used to place gravel around the TSP after formwork has been removed and to groom the area surrounding the pole installations. A crane would be used to place the TSP on the finished foundation.

Pull and Tension Work Areas

A line truck with a trailer and a second transport vehicle (crew cab truck and/or half ton pickup) would be used to transport construction personnel to a pull and each tension work area. A line truck would haul reel trailers and mounted reel stands holding the conductor to the site. An 18-wheeled truck with a trailer

may be used to transport more than 1 reel to the work area. Pullers would be mounted on the line truck or trailer to install the conductor. Old distribution lines that would not be reused would be removed from the sites on a line truck with a trailer. Temporary pole anchors may be installed in the natural ground to stabilize poles when pulling the conductor into place.

Conductor Installation

Typically, the following 7 steps would be taken to install a new conductor (wire stringing):

1. Travelers (pulleys) would be installed on the ends of insulators on each pole frame. A line truck with a bucket would be required to install the pulleys. Installation of pulleys may be phased to correspond with the specific section of wire stringing.
2. A truck, an all-terrain vehicle (ATV), or a worker would pull a light rope (sock line) in line with the route and lace it through the travelers. For this operation, a line truck with a bucket would be used or a worker may climb the structure.
3. When the sock line is laced through the travelers for the length of the pull, the sock line would be connected to a hard line (steel cable). The hard line would be on a reel that would be on a tensioner. Typically, the reel and tensioner would be located on a line truck or semi-truck trailer.
4. The sock line would be pulled back with a truck, an ATV, or a worker pulling the hard line into place. The sock line would be removed from its connection to the hard line.
5. That end of the hard line would be connected to a conductor. A trailer-mounted tensioner would then pull the hard line and connected conductor in the reverse direction.
6. The conductor would be sagged (tightened) into place using the tensioner.
7. The conductor would be clipped into the insulators and the travelers would be removed by using the line truck with a bucket or a worker may climb the structure.

Guard Structures

Prior to stringing conductors, temporary guard structures would be installed at railroad and road crossings, and other locations where the new conductors may otherwise come into contact with electrical, communication, or rail facilities or vehicular traffic during installation. Guard structures would be positioned and configured to catch and support the weight of the conductor if it unexpectedly drops or sags excessively during the tensioning process. These structures would be placed on one side or on each side of the road or other location being crossed. For example, the temporary structures are expected to be installed adjacent to the railroad tracks as the transmission line crosses them in a west-east direction along Martin Avenue.

Each temporary structure would typically consist of a wood pole with a frame at the top that resembles a “Y” or “H”. Methods for installation and removal of the clearance structures would be similar to those described for wood poles, and would be installed approximately 6 to 10 feet deep. Foundations and grading would not be required. Netting would be installed between the 2 Y-frame or H-frame structures, as needed, to prevent contact between the new conductor and an existing facility. Where necessary, traffic control would be provided during installation and removal of these temporary guard structures and as specified in encroachment permits.

Existing Pole Removal

The existing wood poles along Walsh Avenue and some poles along the west side of Lafayette Street (between Central Expressway and Walsh Avenue) would be removed after the transmission line is transferred to the new structures and would involve removing conductor, poles, and associated hardware. After wire pulling equipment is in place, rollers would be installed on structures, the old conductor would be unclipped from the supporting structures, placed into the rollers, and pulled out with a pulling rope and/or cable attached to the trailing end of the conductor. The old conductor wire would be transported to a construction yard where it would be prepared for recycling. Next the removal would consist of the above and below-ground portions of the pole. Any holes left from removing the poles would be backfilled with spoils that may be available as a result of the excavation for new poles and using imported fill as needed.

4.10.4.5 Reconductoring

In general, reconductoring is accomplished by disconnecting an old conductor and using it to pull a sock line (rope) through travelers or sheave blocks (temporary pulleys) mounted on each tower, until the sock line reaches the end of the section to be reconducted. Workers climb the pole to access the pole in order to place the travelers on each pole and route the old conductor through the travelers. Once in place, the sock line is then used to pull the new conductors into place. An alternative is to connect the old conductor directly to the new conductor and use it to pull the new conductor into place.

Large tractor/trailer units would be used to feed out the new line or wind in the old line on trailer-mounted spools. Two or three utility trucks carrying tools and other materials would also be employed. One crew would set up at a “pull site” near a tower at one end of the pull, and the other crew would set up a “tension site” near a tower at the other end of the pull. As a safety precaution, ground rods (copper rods, 5/8-inch in diameter and long enough to be driven to firm ground with approximately one-foot protruding above ground) would be installed on each end of designated pull sites prior to pulling and tensioning work and removed once work is complete. Ground rods would also be attached to any equipment used near an energized conductor.

The tensioning crew would employ a tensioner truck, which carries a large drum winch that is used to put rear tension on the conductor being pulled. Each conductor is pulled separately (one phase of each circuit per pull) until all three phases of a circuit are in place. The tensioning site crew would access the tower and disconnect the old conductor. The old conductor would be attached to a sock line or directly, to the new conductor located on spools on tensioner trucks.

Once the pull and tension sites are ready, the pulling crew would begin to wind the old conductors onto spools mounted on trucks, thereby pulling the sock line (or new conductor) through the pulleys. The tensioning crew would keep the old conductor taut, preventing it from sagging to the ground or into other objects in the ROW. If a sock line is used, once the sock line is in place, the crews would repeat the process, winding the sock line onto a take-up reel, thereby pulling the new conductor in place. Once the new conductor is in place, it would be disconnected from the pulleys and permanently mounted to the end of new insulator strings.

4.10.4.6 Substation Modifications Construction

Minimal work would be needed at the existing substations. The existing substation racks would be used to support the new conductors. Work activities to disconnect the existing conductor from the substation racks and attach the new conductor would take place within the existing fenced areas of the substations.

4.10.4.7 Water Use

Water may be used during construction of the drilled concrete pier foundations for the tubular steel poles. One method to stabilize the hole while it is being excavated is to temporarily fill it with a slurry consisting of water and a stabilizing agent, such as a polymer-blend or bentonite. The water would be transported to the pole location and likely mixed with the stabilizing agent as the water is poured into the excavated hole. As the concrete is placed in the hole, the slurry is displaced by the concrete and pumped out of the hole and into a holding tank. The collected slurry in the tank would then be transported away from the work area to an approved disposal site. For a foundation 8 feet in diameter and 25 feet deep, about 1,250 cubic feet of water would be required at each foundation site.

4.10.4.8 Construction Workforce and Equipment

Table 4-2, Anticipated Personnel and Equipment Required for Project Construction (based on typical estimates), lists the expected equipment and personnel by construction activity. Not all equipment and personnel may be used during all portions of the activity. This is a preliminary equipment list; other equipment may be identified when project design is finalized or during construction if unexpected conditions require additional equipment. Designated fueling areas would be identified as part of the final design when project staging areas are identified.

Table 4-2. Anticipated Personnel and Equipment Required for Project Construction (based on typical estimates)

Activity	People	Quantity of Equipment
Survey	1 to 2	1 Pickup truck
Auger Holes for Wood and Light Duty Poles	3	1 Line truck with auger attachment 1 Pickup truck 1 Backhoe or skid loader
Concrete Pier Foundation Installation	4	1 Line truck 1 Backhoe or skid loader 1 Drill rig 1 Crane 1 Water truck 1 Pickup truck 3 Cement trucks
Material Haul	3	1 Line truck with trailer
Pole Delivery	3	1 Pole delivery truck 1 Pickup or light SUV
Install Tubular Steel Poles	5 per crew	1 Line truck with boom 1 Crane 2 Crew-cab pick-up truck 1 Light-duty pick-up truck 1 Backhoe or skid loader
Wood and Light-Duty Steel Pole Installation and Distribution Pole Removal (Ground access, per crew; construction would include 2 crews)	5 per crew	2 Crew cab truck 2 Line trucks with bucket and trailer (transports boom and auger) 1 Backhoe or skid loader

Table 4-2. Anticipated Personnel and Equipment Required for Project Construction (based on typical estimates)

Activity	People	Quantity of Equipment
Conductor Installation (includes moving distribution to new pole, up to 3 crews may be present during wire stringing activities)	5 per crew	1 Line truck or semi-truck with wire reel 2 Pickup trucks 2 Line truck with bucket/crane 1 Line truck with wire puller 1 Line truck with wire tensioner
Substation Modifications (equipment expected is for each substation)	3	1 Line truck with bucket 1 Pickup truck

Table 4-3, Equipment Expected to be Used During Construction, describes the anticipated use of the equipment listed in Table 4-2.

Table 4-3. Equipment Expected to be Used During Construction

Equipment	Use
Aerial Lift (or Line Truck with Bucket)	Lifts crew members to make line connections
Auger (truck mounted highway digger 15- to 18-ft. depth capability)	Drill holes for wood pole installation
Drill rig	Drill holes for tubular steel pole foundations
Cement mixer/truck	Deliver and pour concrete pier foundations
Crane	Lifting of heavy equipment and poles into place
Crew-cab truck or pickup truck	Transport personnel
Generator set	Power generation for operation of tools
Line truck (with auger, puller, worker-lift bucket, crane/boom, etc.)	Transport, install or remove, poles, conductor, or materials
Mechanics service trucks	Service/repair vehicles and construction equipment
Reel trailers with reel stands (semi-trailer or truck mounted type)	Haul conductor
Plate compactor	Grading, compact soil
Puller/Tensioner/Reel (line truck or trailer-mounted)	Install conductor
Pump	Dewatering if groundwater is encountered, removal of foundation slurry, and watering for dirt suppression, if necessary
Forklift	Loading and Transport of poles
Semi-truck (with trailer)	Haul wire reel, or tubular steel pole
Sweeper/Scrubber	Road cleaning, if necessary
Tensioner (line truck-mounted)	Install conductor
Backhoe or skid loader	Grading, backfilling of holes, loading soil
Water truck	Dust suppression, transport water to concrete foundation locations, water for stabilizing slurry
Welder	For any welding that may be required at steel pole work areas
Worker-lift (truck mounted)	Lift workers to perform work on structures

4.10.4.9 Construction Traffic and Circulation

Construction would require temporary lane closures along various public and private roads within the project area over the 6-month construction duration. Temporary lane closures would be coordinated with local agencies. SVP would obtain ministerial encroachment permits to conduct work in public ROWs in accordance with applicable City requirements.

4.10.4.10 Vegetation Clearance

Some vegetation and tree removal or tree trimming would be required for pole installation and vehicle access and to minimize the risk of fire by providing clearance between conductors and trees. In general, trees would be avoided where feasible; isolated tree trimming or removal would be coordinated with the property owner or operator. The new transmission line would be routed along the edges of city streets (refer to the map in Appendix A, Proposed Project Route) where many trees currently exist. The majority of tree trimming would take place between power poles to ensure there is adequate electrical clearance between the conductors and tree branches during all types of weather conditions. In general, trees that are located below the 60 kV transmission line would need to be trimmed so that they are no taller than about 25 feet to 30 feet above ground. Tree branches that are closer than 5 feet vertically or 10 feet horizontally to any conductor or wire (with or without wind) would be trimmed to meet the minimum clearance.

Trees would also be trimmed to maintain adequate clearance to the lower voltage conductors and various cables that would be attached to the poles below the 60 kV conductors. However, these conductors and cables are existing wires that would be transferred to the new poles at roughly the same height as their current position; therefore, the route segments that have existing power lines should already have adequate clearance to trees, and tree trimming should be minimal for these segments.

4.10.4.11 Erosion and Sediment Control and Pollution Prevention

A small, temporary stockpile of excavated dirt may be located near a pole hole excavation until it is loaded into a truck and transported offsite or until it is used as backfill for the hole. Stockpiles would be located away from and/or down-gradient of waterways. Sediment control BMPs would be implemented to manage temporary stockpiles.

Construction debris and waste would be transported to the staging area(s) or to an area Service Center as needed for recycling or disposal. Existing wood poles would be removed to an area Service Center or staging area collection bin for transport with other materials for disposal at a licensed Class I or Class II landfill or a composite lined portion of a solid waste landfill. SVP would comply with all laws and regulations regarding the disposal of the existing wood poles.

If underground storage tanks (USTs) or aboveground storage tanks (ASTs) are found to be located along the project route and the route cannot be adjusted to avoid disturbance, the tanks would be removed prior to project construction or segregated from the work area and not disturbed. If it is determined that removal of tanks is necessary, a separate work plan describing the proper decommissioning and removal of the tanks and removal of any associated impacted soil would be prepared prior to removal.

4.10.4.12 Cleanup and Post Construction Restoration

During construction, construction debris would be picked up daily from line work job site areas and hauled back to a staging area or an area Service Center for recycling or disposal. Construction debris would be picked up from substation construction areas, stored in approved containers on site, and hauled away for recycling or disposal periodically during construction. SVP would conduct a final survey to document that clean-up activities have been successfully completed as required.

Work areas where vegetation management and/or tree trimming occurred are expected to revegetate naturally due to the limited disturbance. If trees are removed, it would likely be because the final condition of the project requires it and not because of temporary construction activities.

4.10.4.13 Construction Schedule

The construction phase is expected to take approximately 6 months and is anticipated to be completed by February 2022. Construction would start with mobilizing construction equipment, crews, and materials to the staging areas. In general, construction would then begin with below grade work (excavating holes for poles and concrete pier foundations) and would be followed by pole installation and wire stringing. Construction sequencing and coordination of power outages may require that some route segments of the line be built first, with the construction of other segments later. All types of construction activities may occur simultaneously.

4.10.5 Operations and Maintenance

Once the new South Loop 60 kV line is built and energized, SVP’s existing maintenance and operations group would assume inspection, patrol, and maintenance duties, as needed. No additional staff would be required after project construction work is completed.

4.10.6 Required Approvals

SVP would obtain permits for the project, as needed, from federal, State, and local agencies. Table 4-4, Permits and Approvals Necessary for the Proposed Project, lists permits and approvals that may be required for project construction.

Table 4-4. Permits and Approvals Necessary for the Proposed Project

Agency	Purpose	Permit, Approval, or Exemption
Federal		
U.S. Fish and Wildlife Service (USFWS)	Potential impacts to federally listed species or critical habitat.	Section 7 consultation (through federal review process)
FAA	Potential impacts to air traffic	FAA Part 77
State		
Regional Water Quality Control Board, Region 2 (San Francisco Bay)	Consistency with state water quality standards	<ul style="list-style-type: none"> • 401 Certification • Storm Water Construction General Permit 99-08-DWQ • National Pollutant Discharge and Elimination System (NPDES) Permit • Waste Discharge Requirements (WDRs)
Local		
City of Santa Clara	Construction, modification, or alteration of power line facilities	<ul style="list-style-type: none"> • New or expanded ROW Grant • Road/Highway Encroachment/Crossing Permit • Grading and Wall Permits • Traffic Control Plans • Flood Control/Drainage Channel Encroachment/Crossing Permit • Excavation Permit • Tree Removal Permit
Railroad	Approval to cross the railroad	<ul style="list-style-type: none"> • Crossing Permit

4.10.7 Electric and Magnetic Fields Summary

Recognizing that there is a great deal of public interest and concern regarding potential health effects from exposure to electric and magnetic fields (EMF) from power lines, this document provides information regarding EMF associated with electric utility facilities and the potential effects of the proposed project to public health and safety. Potential health effects from exposure to electric fields from power lines (produced by the existence of an electric charge, such as an electron, ion, or proton, in the volume of space or medium that surrounds it) are typically not of concern since electric fields are effectively shielded by materials such as trees, walls, etc.; therefore, the majority of the following information related to EMF focuses primarily on exposure to magnetic fields (invisible fields created by moving charges) from power lines. However, this Initial Study does not consider magnetic fields in the context of the CEQA and does not make a determination of environmental impact. This is because (a) there is no agreement among scientists that EMF does create a potential health risk, and therefore, (b) there are no defined or adopted CEQA standards for defining health risk from EMF. As a result, EMF information is presented for the benefit of the public and decisionmakers.

After several decades of study regarding potential public health risks from exposure to power line EMF, research results remain inconclusive. Several national and international panels have conducted reviews of data from multiple studies and state that there is not sufficient evidence to conclude that EMF causes cancer. The International Agency for Research on Cancer (IARC), an agency of the World Health Organization (WHO), and the California Department of Health Services (DHS) both classified EMF as a *possible* carcinogen (WHO, 2001; DHS, 2002).

In addition, the 2007 WHO [Environmental Health Criteria (EHC) 238] report concluded that:

- Evidence for a link between Extremely Low Frequency (50–60 Hz) magnetic fields and health risks is based on epidemiological studies demonstrating a consistent pattern of increased risk for childhood leukemia. However, “...virtually all of the laboratory evidence and the mechanistic evidence fail to support a relationship between low-level ELF magnetic fields and changes in biological function or disease status...the evidence is not strong enough to be considered causal but sufficiently strong to remain a concern.”
- “For other diseases, there is inadequate or no evidence of health effects at low exposure levels.”

Currently, there are no applicable regulations related to EMF levels from power lines or substations.

4.10.8 Alternatives

The purpose of an alternatives analysis pursuant to CEQA is to identify options that would feasibly attain the project’s objectives while reducing the significant environmental impacts resulting from the proposed project. CEQA does not require the inclusion of an alternatives analysis in MNDs because the Initial Study concludes that, with incorporation of mitigation measures, there would be no significant adverse impacts resulting from the proposed project (CEQA Guidelines Sections 15063(d) and 15071). Therefore, no alternatives analysis needs to be provided in the Initial Study.

However, SVP did consider three route alternatives and several minor sub-options in the project area that would achieve the project objectives. The proposed route was chosen for the following reasons: (1) the chosen route has good reliability from an operational and power delivery perspective; (2) underground transmission line construction would be avoided; (3) the selected route is the best option for meeting the objectives of the project by transferring the power flow from the various substations to the desired transmission line circuit(s); (4) the chosen route has fewer engineering design challenges than the other alternatives; and (5) the preferred route is the best solution for avoiding construction that is near the San Jose International airport or along the railroad ROW.

5. Environmental Setting and Environmental Impacts

5.1 Aesthetics

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

5.1.1 Setting

Methodology

Visual or aesthetic resources are the natural and cultural features of the environment that can be seen and that contribute to the public's enjoyment of the environment. Visual resource or aesthetic impacts are generally defined in terms of a project's physical characteristics and potential visibility and the extent that the project's presence would change the visual character and quality of the environment in which it would be located.

Visual resources were assessed in the field and potential visual changes due to project activities were evaluated. Visual resources of the project area were investigated based on the following criteria: (1) existing visual quality and scenic attributes of the landscape; (2) location of sensitive receptors in the landscape; (3) assumptions about receptors' concern for scenery and sensitivity to changes in the landscape; (4) the magnitude of visual changes in the landscape that would be brought about by construction and operation of the proposed project; and (5) compliance with State, County, and local policies for visual resources. The evaluation of potential changes in the area's visual character is presented in the following paragraphs.

Existing Landscape Setting and Viewer Characteristics

This section discusses the existing visual character of the region, existing visual quality in the project area; viewer concern, and viewer exposure to the proposed project, leading to a rating of overall visual sensitivity. Also discussed are the existing sources of light and glare within the project area.

Aesthetic Context of the Project and its Vicinity. The proposed project would be located in an urban and industrial area of the City of Santa Clara. The project vicinity is highly developed. The proposed project site is not located in an area designated as a protected scenic resource and is therefore not subject to scenic

protection standards. In addition, the proposed site is not located near an officially designated scenic highway; however, Interstate 101 is eligible for designation as a state scenic highway (CA DOT, 2017).

Existing Views of the Project. The proposed project would be constructed in an urban and developed area of the City of Santa Clara between U.S. Highway 101 and Interstate 280. Views of the proposed project area and the local vicinity are dominated by commercial and industrial buildings.

Regulatory Background

This section includes a description of the aesthetic resources regulatory framework. There are no federal regulations or policies related to aesthetic resources are applicable to the project.

State

California Department of Transportation: Scenic Highway Program.

The Scenic Highway Program in the State of California is aimed at the protection and long-term preservation of highway corridors of scenic value to ensure the aesthetic value of lands adjacent to highways. The State Scenic Highway System includes highways that are either eligible for designation as scenic highways or have been designated as such. The status of a state scenic highway changes from eligible to officially designated when the local jurisdiction adopts a scenic corridor protection program, applies to the California Department of Transportation for scenic highway designation approval, and receives the designation. A city or county may propose adding routes with outstanding scenic elements to the list of eligible highways; however, state legislation is required for them to become designated.

Local

City of Santa Clara General Plan

The City's land use policies consider the effects of development to public facilities and infrastructure. The following policies in the General Plan generally relate to the proposed project (City of Santa Clara, 2014):

- **Policy 5.3.1-P27.** Encourage screening of above-ground utility equipment to minimize visual impacts.
- **Policy 5.3.1-P28.** Encourage undergrounding of new utility lines and utility equipment throughout the City.
- **Policy 5.3.1-P29.** Encourage design of new development to be compatible with, and sensitive to, nearby existing and planned development, consistent with other applicable General Plan policies.

5.1.2 Environmental Impacts and Mitigation Measures

a. Would the project have a substantial adverse effect on a scenic vista?

NO IMPACT. The flat topography and developed character of this part of the City of Santa Clara does not provide scenic vistas, which typically are views of open spaces or views from elevated topographic positions. The nearest mountains or areas of high elevation that would provide panoramic views that could include the project site are approximately 8 miles away. Views from these locations would overlook the highly developed urban landscape, within which the new 60 kV transmission line would be indiscernible. The Project would therefore result in no impact to a scenic vista.

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

NO IMPACT. The proposed project would require vegetation and tree trimming and removal for pole installation and vehicle access and to minimize the risk of fire. Tree branches that are closer than 5 feet

vertically or 10 feet horizontally to any conductor or wire (with or without wind) would be trimmed to meet the minimum clearance. The majority of tree trimming would take place between power poles to ensure there is adequate electrical clearance between the conductors and tree branches.

Interstate 280, approximately 3.5 miles to the south of the project area, is not officially designated as a State scenic highway and there are no rock outcroppings or historic buildings would be affected. Based on the circumstances, there would be no impacts to scenic resources within a State scenic highway.

c. In non-urbanized areas, would the project substantially degrade the existing visual character or quality of the 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. The project is located in an urbanized area with primarily heavy and light industrial land uses. Zoning designations within a half mile of the proposed project are medium density, planned development, neighborhood commercial, moderate density multiple dwelling, high density residential, residential duplex, low density multiple dwelling, and thoroughfare commercial. Utility lines are an accepted use in these zoning designations.

The proposed project does not include grading. In the short term, the presence of equipment and vehicles may be noticeable to the nearby businesses and residents and travelers on local roads. However, construction activities would be temporary. While the proposed project would not be underground (as encouraged by Policy 5.3.1-P28 of the City of Santa Clara General Plan [2014]), the new proposed 60 kV transmission line would be consistent with the dominant visual character of the area, which has been established by the existing buildings, streets, light standards, trees, overhead transmission lines, and other urban and industrial elements in the project area. Some segments of the new 60 kV transmission line would replace existing distribution power lines and/or telecommunication lines and therefore would result in a minor change to the existing visual character or quality of the site and its surroundings with the replacement of the wooden transmission line poles with tubular steel poles.

Vegetation management and tree removal would not be noticeable in the long term within the overall landscape, due to the industrial character of the local vicinity and tree replacement, as required by the City of Santa Clara (see Section 5.4, Biological Resources) and encouraged by Policy 5.3.1-P27 of the City of Santa Clara General Plan (2014). Work areas where vegetation management and/or tree trimming would occur are expected to revegetate naturally due to the limited disturbance. Upon project completion, all project equipment and materials would be removed from the project area. In addition to tree replacement, site restoration may include repairing any damage to sidewalks, paved parking areas, or curbs and may also be needed in landscaped planters and lawns.

The proposed project, located in an urbanized area, would be consistent with applicable zoning, regulations and the majority of the applicable policies of the City of Santa Clara General Plan, as noted in Section 5.1.1 and in Section 5.11 (Land Use); thus, the impact would be less than significant.

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

NO IMPACT. The proposed project construction activities would occur during daylight hours and would not include nighttime work that would necessitate the use of lighting within work areas. No new lighting or sources of glare are proposed; therefore, no impact would occur.

5.2 Agriculture and Forestry Resources

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 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:**

	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

5.2.1 Setting

The proposed project is located in a developed, industrial area and there is no agricultural activity or forestry resources along the proposed project route. The project area is not zoned for agricultural or forestry uses by the City of Santa Clara, nor is there agricultural or forestry activity in the vicinity of the proposed route (City of Santa Clara, 2014). The surrounding lands are designated as Urban and Built-Up Land under the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP), which identifies various categories of farmland throughout the State (DOC, 2016). The properties in the areas along the proposed project route are also not under California Land Conservation Act of 1965 (referred to as the Williamson Act) contracts (DOC, 2017). The Williamson Act allows counties to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use in return for a reduction in assessed property taxes.

Regulatory Background

This section includes a description of the agriculture and forestry resources regulatory framework. There are no federal or local regulations associated with agriculture and forestry resources that are relevant to the proposed project.

State

Farmland Mapping and Monitoring Program (FMMP). The FMMP was established in 1982 to identify various categories of farmland throughout California and to assess the location, quantity, and quality of agricultural lands and conversion of these lands to other uses. Every even-numbered year, FMMP issues a Farmland Conversion Report. FMMP data are used in elements of some county and city general plans, in regional studies on agricultural land conversion, and in environmental documents as a way of assessing project-specific impacts on Prime Farmland.

The DOC classifies lands as follows (DOC, 2016):

- **Prime Farmland:** Land that has the best combination of physical and chemical properties for the production of crops
- **Farmland of Statewide Importance:** Similar to Prime Farmland, but with minor shortcomings (e.g., steeper slopes, inability to hold water)
- **Unique Farmland:** Land of lesser quality soils, but recently used for the production of specific high economic value crops. Land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California
- **Farmland of Local Importance:** Land essential to the local agricultural economy
- **Grazing Land:** Land on which existing vegetation is suitable for livestock grazing.
- **Urban and Built-Up Land:** Land that is occupied by buildings or other structures at a minimum density of one unit to 1.5 acres (or approximately six structures to 10 acres). These lands are used for development purposes, including residential, commercial, industrial, construction, public administration, institutional, transportation yards, airports, cemeteries, golf courses, sewage treatment, sanitary landfills, and water control structures.
- **Other Land:** Land that is not in any other map category, such as waterbodies smaller than 40 acres; low density rural developments; confined livestock, poultry, or aquaculture facilities; and brush, timber, wetland, and riparian areas not suitable for livestock grazing.
- **Water:** Perennial waterbodies that are a minimum of 40 acres.

Williamson Act. The Williamson Act is intended to help preserve farmland by allowing counties to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use in return for a reduction in assessed property taxes. The contracted land is then restricted to agricultural and compatible uses through a rolling-term, 10-year contract between the private land owner and the local government, which has the discretion to determine uses compatible with Williamson Act enrollment. As stated in Section 51222 of the California Government Code, the minimum acreage requirement for individual parcels to enter into Williamson Act contracts is 100 acres.

5.2.2 Environmental Impacts and Mitigation Measures

a. *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?*

NO IMPACT. The proposed project route and all of the land in the route vicinity are designated as Urban and Built-Up Land on the FMMP maps and are not designated Farmland. Agriculture is not practiced in the area. The proposed project would not result in conversion of Farmland to non-agricultural use.

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

NO IMPACT. The City of Santa Clara does not participate in the Williamson Act. There is no designated zoning for agricultural use, and the City of Santa Clara General Plan does not include an Agriculture Element. The proposed project route would not conflict with zoning for agricultural use.

c. *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. The proposed project route is in an urban area and is not forested. The proposed project would not conflict with zoning for forest land, timberland, or timber production.

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

NO IMPACT. The proposed project would not affect any forest land since the proposed route is located in an urban area that is not forested. There would be no conversion of forest land to non-forest use.

e. *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?*

NO IMPACT. There is no Farmland, agriculture, or forestland along or near the proposed project route. The proposed project would not result in changes in the environment that would result in the conversion to non-agricultural or non-forest uses.

5.3 Air Quality

AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

5.3.1 Setting

Air Basin. The project would be in the San Francisco Bay Area air basin in the jurisdiction of the Bay Area Air Quality Management District (BAAQMD), which regulates sources of air pollution and the programs to improve air quality in the region. The San Francisco Bay Area air basin is characterized by complex terrain, consisting of coastal mountain ranges, inland valleys, and bays, which distort normal wind flow patterns. The Coast Range splits resulting in a western coast gap, the Golden Gate, and an eastern coast gap, the Carquinez Strait, which allow air to flow in and out of the Bay Area air basin and California’s Central Valley (BAAQMD, 2017).

Criteria Air Pollutants. Air quality is determined by measuring ambient concentrations of certain criteria air pollutants. The criteria pollutants are ozone, respirable particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and lead. Ozone is an example of a secondary pollutant that is not emitted directly from a source (e.g., an automobile tailpipe), but it is formed in the atmosphere by chemical and photochemical reactions. Reactive organic gases (ROG), including volatile organic compounds (VOC), are regulated as precursors to ozone formation.

The California Air Resources Board (ARB) and the U.S. Environmental Protection Agency (U.S. EPA) have independent authority to develop and establish health-protective ambient air quality standards, although the different legislative and scientific contexts cause some diversity between State and Federal standards currently in effect in California. The monitored levels of the pollutants are compared to the current National and California Ambient Air Quality Standards (NAAQS and CAAQS) to determine degree of existing air quality degradation. The standards currently in effect in California are shown in Table 5.3-1.

Table 5.3-1. National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	National Standards
Ozone	1-hour	0.09 ppm	—
	8-hour	0.070 ppm	0.070 ppm
Respirable Particulate Matter (PM ₁₀)	24-hour	50 µg/m ³	150 µg/m ³
	Annual Mean	20 µg/m ³	—

Table 5.3-1. National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards	National Standards
Fine Particulate Matter (PM _{2.5})	24-hour	—	35 µg/m ³
	Annual Mean	12 µg/m ³	12.0 µg/m ³
Carbon Monoxide (CO)	1-hour	20 ppm	35 ppm
	8-hour	9.0 ppm	9 ppm
Nitrogen Dioxide (NO ₂)	1-hour	0.18 ppm	0.100 ppm
	Annual Mean	0.030 ppm	0.053 ppm
Sulfur Dioxide (SO ₂)	1-hour	0.25 ppm	0.075 ppm
	24-hour	0.04 ppm	0.14 ppm
	Annual Mean	—	0.030 ppm

Notes: ppm=parts per million; µg/m³= micrograms per cubic meter; "—" =no standard
Source: ARB (<http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>), May 2016.

Ambient Air Quality Attainment Status and Air Quality Plans. The U.S. EPA, ARB, and the local air district classify an area as attainment, unclassified, or nonattainment, and these designations dictate the air quality management planning activities needed make future air pollutant reductions. The classification depends on whether the monitored ambient air quality data show compliance, insufficient data available, or non-compliance with the ambient air quality standards, respectively. Table 5.3-2 summarizes attainment status in the San Francisco Bay Area air basin for the criteria pollutants in comparison with both the state and federal standards.

Table 5.3-2. Attainment Status for San Francisco Bay Area

Pollutant	California Designation	Federal Designation
Ozone (1-hour)	Nonattainment	No Federal Standard
Ozone (8-hour)	Nonattainment	Nonattainment
PM ₁₀	Nonattainment	Unclassified/Attainment
PM _{2.5}	Nonattainment	Nonattainment
CO	Attainment	Attainment
NO ₂	Attainment	Unclassified/Attainment
SO ₂	Attainment	Unclassified/Attainment

Source: BAAQMD, 2017.

Toxic Air Contaminants. Toxic air contaminants (TACs) are air pollutants that may lead to serious illness or increased mortality, even when present in relatively low concentrations. Potential human health effects of TACs include birth defects, neurological damage, cancer, and death. There are hundreds of different types of TACs with varying degrees of toxicity. Individual TACs vary greatly in the health risk they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another's. TACs do not have ambient air quality standards, but are regulated by the local air districts using a risk-based approach. The project would not be considered a stationary source subject to risk assessment programs. Diesel particulate matter (DPM) is classified as a TAC, and statewide and local programs focus on managing this pollutant through motor vehicle fuels, engine, and tailpipe standards because many toxic compounds adhere to diesel exhaust particles.

Sensitive Receptors. Residential areas, day care centers, hospitals, and schools are some examples of sensitive receptors. The BAAQMD defines sensitive receptors as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses (BAAQMD, 2017).

Regulatory Background

U.S. EPA/ARB Off-Road Mobile Sources Emission Reduction Program. The California Clean Air Act mandates that ARB achieve the maximum degree of emission reductions from all off-road mobile sources in order to attain the state ambient air quality standards. Off-road mobile sources include construction equipment. The earliest (Tier 1) standards for large compression-ignition engines used in off-road mobile sources became effective in California in 1996. Since then, the Tier 3 standards for large compression-ignition engines used in off-road mobile sources went into effect in California for most engine classes in 2006, and Tier 4 or Tier 4 Interim (4i) standards apply to all off-road diesel engines model year 2012 or newer. These standards and ongoing rulemaking jointly address emissions of nitrogen oxides (NOx) and toxic particulate matter from diesel combustion. The California Emission Standards for Off-Road Compression-Ignition Engines are as specified in California Code of Regulations (CCR) Title 13, Division 3, Chapter 9, Article 4, Section 2423.

ARB Portable Equipment Registration Program (PERP). This program allows owners or operators of portable engines and associated equipment commonly used for construction or farming to register their units under a statewide portable program that allows them to operate their equipment throughout California without having to obtain individual permits from local air districts.

ARB Airborne Toxic Control Measures (ATCM). Diesel engines on portable equipment and vehicles are subject to various ATCM that dictate how diesel sources must be controlled statewide. For example, the ATCM to Limit Diesel-Fueled Commercial Motor Vehicle Idling generally limits idling of commercial motor vehicles (including buses and trucks) within 100 feet of a school or residential area for more than five consecutive minutes or periods aggregating more than five minutes in any one hour (13 CCR, Chapter 10, Section 2485). Diesel engines used in portable equipment fleets are subject to stringent DPM emissions standards, generally requiring use of only newer engines or verified add-on particulate filters (17 CCR Section 93116).

City of Santa Clara General Plan. The General Plan includes one relevant policy taken from the Air Quality Goals and Policies section, as follows. Air Quality Policy 5.10.2-P6: Require “Best Management Practices” for construction dust abatement.

BAAQMD CEQA Guidelines Thresholds of Significance. The BAAQMD developed the following thresholds as recommendations for use in the CEQA process. For construction-related criteria air pollutant emissions, construction of a project may cause a significant impact if it would:

- Emit more than 54 pounds per day (lb/day) of reactive organic gases (ROG) or volatile organic compounds (VOC);
- Emit more than 54 lb/day of nitrogen oxides (NOx);
- Emit more than 82 lb/day of PM10 from exhaust; or
- Emit more than 52 lb/day of PM2.5 from exhaust.

Similar thresholds exist for a project during operation along with a threshold for localized concentrations of CO greater than 9.0 ppm (8-hour average) or 20.0 ppm (1 hour average). For PM10 and PM2.5 related to construction fugitive dust, the BAAQMD recommends that every project should include best management practices rather than achieve specific fugitive dust emissions thresholds. The basic construction emissions control measures appear in the BAAQMD CEQA Guidelines (BAAQMD, 2017).

5.3.2 Environmental Impacts and Mitigation Measures

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

NO IMPACT. The BAAQMD is the primary agency responsible for managing local air quality and administering other California and federal programs ensuring implementation of the air quality management plan. The 2017 Bay Area Clean Air Plan is the BAAQMD's current plan to achieve state and national ambient air quality standards, comply with California and federal air quality planning requirements, and maintain healthy air in the San Francisco Bay Area.

The BAAQMD recommends evaluating whether local long-range plans: (a) support the primary goals of the 2017 Clean Air Plan; (b) include relevant control measures; and (c) do not interfere with implementation of 2017 Clean Air Plan control measures. The BAAQMD's 2017 Clean Air Plan anticipates that electricity consumption and demand for electricity will increase as a result of economic and demographic growth and due to increased electrification, caused by shift energy demand away from fossil fuels. The project would modify the existing SVP infrastructure to improve the electric transmission system. By improving the delivery of electricity, the project would support the primary goals of the 2017 Clean Air Plan. No control measures from the plan would be directly applicable to the project, and the project would not disrupt or hinder implementation of any plan control measures.

Additionally, a project could be inconsistent with the applicable air quality management plan or attainment plan if it could cause population and/or employment growth or growth in vehicle-miles traveled in excess of the growth forecasts included in the air quality attainment plan. The project would not require any new permanent full-time or part-time staff after construction is complete. Therefore, the project would not conflict with or obstruct implementation of the applicable air quality plan. No impact would occur, and no mitigation is required.

b. 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 WITH MITIGATION INCORPORATED – CONSTRUCTION. The construction-related increase in air pollutant emissions would occur in the regional context of the San Francisco Bay Area air basin that is currently designated as "nonattainment" for ozone, PM10, and PM2.5 (Table 5.3-2, Attainment Status for San Francisco Bay Area).

The thresholds of significance (BAAQMD, 2017) recommended by the BAAQMD define mass emission rates that represent a potentially significant net increase for ozone precursor emissions (NO_x or VOC) or exhaust emissions of particulate matter (PM10 and PM2.5). For construction dust, the BAAQMD recommends a qualitative approach emphasizing implementation of effective emissions control measures that avoid causing a cumulatively considerable net increase. The qualitative approach to reducing dust reflects the nature of construction phase emissions that are generally short-term in duration. For this project, construction emissions would cease at the conclusion of the 6-month construction duration.

The proposed activities include mobilizing construction equipment, crews, and materials, excavating holes for poles, installing concrete pier foundations, installing poles and wire stringing. These activities during construction would generate emissions along the proposed transmission line segments, at the proposed staging and work areas, within the modified substation sites, and along the roadways used to access these locations. Construction emissions would be caused by exhaust from vehicles and equipment (e.g., ozone precursors [volatile organic compounds and NO_x], CO, and particulate matter [PM10 and PM2.5]) and fugitive dust/particulate matter from ground-disturbing activities. Diesel and gasoline-powered

construction equipment at work sites would include trucks for linework, lifts, delivery, concrete, water and work crews, backhoes, loaders, drill rigs, cranes, and small welders, pumps and generators. Outside of work sites, exhaust emissions would be caused by vehicles transporting equipment and supplies to the sites, trucks removing debris, and workers commuting to and from work sites.

Project-related construction emissions calculations rely on factors from the ARB EMFAC2014 model and other databases embedded in the California Emissions Estimator Model (CalEEMod; v.2016.3.2). The detailed emission calculations are based on the proposed workforce and types of equipment (see Project Description, Section 4.10.4.8). The activity details modeled and the results are summarized in the CalEEMod output files (see Appendix F).

Table 5.3-3 shows that with implementation of basic control measures, construction-related criteria air pollutants would not exceed thresholds that indicate cumulatively considerable levels. Therefore, construction of the project would not result in a cumulatively considerable net increase of any criteria pollutants for which the project region is in nonattainment, and the construction impacts with mitigation would be less than significant under this criterion.

Table 5.3-3. Estimated Maximum Daily Construction Emissions (lb/day)

	NO _x	VOC	PM10 (exhaust)	PM2.5 (exhaust)	CO	SO ₂
Maximum Daily Construction Emissions	47.6	5.2	2.4	2.2	44.1	0.1
Threshold of Significance	54	54	82	82	None	None

Source: See Appendix F.

Concurrent construction of other projects in close proximity to the project could result in increased local air quality impacts for the duration of simultaneous construction activities (Section 5.22). Emissions generated by project construction would be temporary and variable and would be similar in nature to emissions from other typical and nearby construction activities. Simultaneous construction of other cumulative projects in close proximity to the project would be likely to implement general BAAQMD recommendations for minimizing air quality impacts. All activities must comply with BAAQMD rules regarding dust control.

To ensure that project construction-related emissions of dust would not cause a cumulatively considerable net increase, basic construction emissions control strategies are drawn from BAAQMD guidance (BAAQMD, 2017), and these strategies represent “Best Management Practices” consistent with City of Santa Clara air quality policies. The recommended emissions control measures appear in Mitigation Measure AQ-1.

With the implementation of Mitigation Measure AQ-1, construction emissions would not exceed the significance thresholds. With mitigation, construction-related emissions would not substantially contribute to any air quality violation, and this impact would be less than significant

Mitigation Measures for Construction-Phase Air Quality

AQ-1 Implement Basic Construction Air Quality Mitigation. The project shall ensure that basic construction emissions control measures are implemented as “Best Management Practices,” as follows:

- All exposed soil surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at SVP regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

LESS THAN SIGNIFICANT – OPERATIONS AND MAINTENANCE. Operational emissions would be limited to the vehicle and equipment used for periodic maintenance, repair, and inspection of the project components. Monitoring and control functions for the new facilities would be connected to the existing SVP systems by telecommunications. SVP's existing local maintenance and operations group would assume monitoring and control duties and maintenance, inspection, and security roles, as needed. No additional staff would be hired by SVP after the project is energized and placed into service. O&M activities would not result in a notable net increase in emissions, and operation would not result in a cumulatively considerable net increase of any criteria pollutant. Accordingly, this impact would be less than significant, and no mitigation would be required during operations.

c. *Would the project expose sensitive receptors to substantial pollutant concentrations?*

LESS THAN SIGNIFICANT. Construction would generate toxic air contaminants routinely found in the exhaust of gasoline powered motor vehicles and of diesel-fueled equipment, including diesel particulate matter (DPM). The project would not involve any permanent or stationary sources of air pollution, but construction of the transmission line segments and distribution power poles would temporarily bring construction equipment into the project area, with land uses that are primarily heavy and light industrial. The locations of the proposed transmission segments would not be adjacent to any sensitive receptors. However, the area includes a diverse range of general plan designations within 0.5-mile of the project, including areas with medium density residential, very low density residential, and community-serving parks/open space. The only residences in the project vicinity are west of Lafayette Street at its intersection with Memorex Drive, on the opposite side of the Lafayette Street and just over 100 feet from the proposed transmission line route. Project-related staging areas and work areas would be at least 100 feet from land uses containing sensitive receptors.

Short-term emissions associated with construction would be distributed across the various staging and work areas and the activities would be variable in sequence and timing. The proposed activities include mobilizing construction equipment, crews, and materials, excavating holes for poles, installing concrete pier foundations, installing poles and wire stringing. The equipment would need to frequently move between work areas and spend only a limited amount of time in use at any one location over the 6-month construction duration. For any single location, the emissions would not occur for long, and this minimizes the potential that any location would be exposed to substantial pollutant concentrations.

Construction contractors would control dust according to avoid creating nuisance conditions and would achieve feasible levels of control of diesel exhaust. Implementing best practices would minimize the emissions of pollutants, including DPM or other toxic air contaminants. Measures to limit idling times and properly maintain equipment would reduce this construction phase emissions to levels below the applicable thresholds of significance, and the best practices would ensure that receptors would not be exposed to substantial concentrations. During project operations, emissions would result from limited use of vehicles for routine maintenance, repair, and inspection that would not expose sensitive receptors to substantial concentrations of air pollutants. Impacts under this criterion would be less than significant and no mitigation is required.

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

LESS THAN SIGNIFICANT. The project would not include any sources likely to create objectionable odors. Construction would involve the temporary use of vehicles and construction equipment and materials, such as fuels and lubricants, that may generate intermittent, minor odors. Emissions of this nature would occur briefly during construction and would cease as the construction activity would move between work areas. There would be no notable impact of objectionable odors affecting a substantial number of people. This impact would be less than significant, and no mitigation is required.

5.4 Biological Resources

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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

5.4.1 Setting

This section describes the existing biological resources that occur in the proposed project area. It includes a description of the existing biotic environment, including common plants and wildlife, sensitive habitats, special-status species and their locations in relation to the proposed project. The following section (Section 5.4.2) presents an analysis of potential impacts to biological resources and, where necessary, specifies mitigation measures to reduce potential impacts to less-than-significant levels.

The proposed project would be located in the northeast area of the City of Santa Clara adjacent to the west side of San Jose International Airport. The route would pass through primarily heavy and light industrial areas. Where the route follows roadways, there are some landscaped areas and some highly disturbed non-native grassland strips. The landscaped areas include ornamental bushes and trees. The portion of the route along the railroad right-of-way is highly disturbed with some ruderal vegetation. For the purposes of this analysis, the “proposed project area,” the “project area,” or the “project route” refers to the footprint that would be directly affected by the project and the immediate vicinity of the project footprint.

Information used in preparing this section was derived from:

- Review of California Department of Fish and Wildlife (CDFW, formerly California Department of Fish and Game) California Natural Diversity Database (CNDDDB) for 5 miles surrounding the project route (CNDDDB, 2019);
- Review of California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants for 5 miles surrounding the project route (CNPS, 2019); and
- Review of CEQA documents and reports for projects located near the project area: 1890 El Camino Real Mixed-Use Development Project MND (City of Santa Clara, 2016a); Building V5 Data Center Project Proposed MND (City of Santa Clara, 2016b); Norman Y. Mineta San Jose International Airport Burrowing Owl Monitoring and Management Annual Report (Klosterman, 2014).

Vegetation Communities

Vegetation in the project area includes landscaping along city streets, which primarily consists of ornamental shrubs and trees, and highly disturbed habitat. Vegetation community classifications generally follow Holland (1986), as modified by Oberbauer et al. (2008). The project area supports two vegetation communities and cover types: Developed/Disturbed Habitat and Urban/Developed/Landscape/Ornamental/Bare Ground; which can be described as being the same.

Developed/Disturbed

Developed/disturbed areas, including landscaping, have been physically altered to an extent that native vegetation communities are no longer supported (Oberbauer et al., 2008). Developed/disturbed areas occur throughout the project area, and include paved roads, bare ground associated with disturbance or development, buildings, paved parking lots, road medians and roadsides, railroad tracks and right-of-way, and landscaped areas.

An initial tree survey for the project was completed by Kramer Botanical in November 2017 and resulted in a Draft Arborist Report dated January 2018 (Kramer, 2018). The preliminary report included the proposed project's Preferred Alignment at the time, selected Existing Alignments where trees could be impacted by project activities, as well as potential Alternative Alignments being considered for the project. An updated tree survey conducted in August 2019 and the revised report incorporates the project's final Preferred Alignment (proposed project), including an Existing Alignment where the existing 60 kV line would be reconducted and trees could be impacted by the project. The 2019 Arborist Report includes the following: an inventory of trees within and immediately adjacent to proposed project boundaries, a general assessment of health/condition for each tree surveyed, and an initial assessment of project impacts to trees within the project area (Kramer, 2019). The 2019 Arborist Report is included in Appendix D (Tree Survey Report) of this IS/MND.

A total of 317 trees along the Project Alignment were documented in the tree survey (see Table 1 of Arborist Report in Appendix D for specific tree number by location). There are 36 different tree species documented in the Arborist Report; however, four species dominated the list accounting for 62 percent of all trees documented, including: American sycamore (*Platanus occidentalis*); purple-leaf plum (*Prunus cerasifera* "Atropurpurea"); coast redwood (*Sequoia sempervirens*); and Mexican fan palm (*Washington robusta*). Of the 36 tree species documented, only coast redwood is native to the Bay Area (Kramer, 2019).

Tree health and condition was also assessed and included in the Arborist Report (Kramer, 2019). It was found that 73 percent of all trees documented for the report are rated in "good" condition, 21 percent are

in “fair” condition, and only 2 percent are in “poor” condition. Dead trees included 4 purple-leaf plumbs and 1 European white birch.

Special-Status Plants and Animals

Special-status species include those listed, proposed for listing, or candidates for listing as threatened or endangered under the federal or State Endangered Species Acts, are California Species of Special Concern, and other species identified by USFWS, CDFW, or another agency as unique or rare. CNDDDB records identify 37 special-status species within 5 miles of the proposed project area (see Appendix E of this IS/MND). Based on a reconnaissance site visit and literature review, there are no special-status plants or animals in the project area due to the lack of habitat in this highly urbanized industrial environment. Animals would include urban adapted birds and mammals such as raccoon, skunk, and opossum.

Burrowing Owl

Burrowing owls are known to occupy the nearby fields of the Norman Y. Mineta San Jose International Airport. However, the project area is highly developed and lacks suitable habitat for this species.

Nesting Birds

A variety of birds may nest in the project area. Nests may be built in trees or other vegetation, on the ground, or on adjacent structures. Nesting birds are protected under the Migratory Bird Treaty Act (MBTA) as well as California Fish and Game Code.

Jurisdictional Waters

There are no jurisdictional waters or features within the project area.

Regulatory Background

Federal

Federal Endangered Species Act of 1973 (16 U.S.C. § 1538). The federal Endangered Species Act (FESA) designates and provides for protection of threatened and endangered plant and wildlife species and their critical habitat. “Take” of a federally listed species is prohibited without the appropriate permits, which may be obtained through Section 7 consultation (between federal agencies) or a Section 10 Habitat Conservation Plan.

Migratory Bird Treaty Act (16 U.S.C. §§ 703–711). The Migratory Bird Treaty Act (MBTA) of 1918 protects all migratory birds. Birds protected under the MBTA include all native waterfowl, shorebirds, hawks, eagles, owls, doves, and other common birds such as ravens, crows, sparrows, finches, swallows, and others, including their body parts (for example feathers and plumes), active nests, and eggs. A complete list of protected species is found at 50 CFR 10.13. Enforcement of the provisions of the MBTA is the responsibility of USFWS.

Clean Water Act (33 USC §§ 1251-1376). The Clean Water Act (CWA) regulates the chemical, physical, and biological integrity of the nation’s waters. Section 401 of the CWA requires that an applicant obtain State certification for discharge into waters of the United States. The Regional Water Quality Control Boards administer the certification program in California. Section 404 of the CWA established a permit program, administered by the U.S. Army Corps of Engineers, to regulate the discharge of dredged or fill material into waters of the United States, including wetlands.

State

CEQA Guidelines § 15380

Enacted in 1970, CEQA requires an applicant to fully disclose environmental impacts before issuance of a permit by state and local agencies. State CEQA Guidelines Section 15380(b) articulates the classifications of species to be analyzed under CEQA. In general, impacts to plants or their habitat having a California Rare Plant Rank of 1A (plants presumed extirpated in California and either rare or extinct elsewhere), 1B (plants rare, threatened, or endangered in California and elsewhere), 2A (plants presumed extirpated in California, but common elsewhere), 2B (plants rare, threatened, or endangered in California), or 3 (plants about which more information is needed — a review list) must be analyzed during preparation of the environmental documents relating to CEQA. According to the California Native Plant Society's (CNPS) Rare Plant Program, species with these California Rare Plant Rank rankings meet the definition of "rare and endangered" under the CEQA Guidelines.

California Endangered Species Act (CESA) (CFGC §§ 2050-2098). Sections 2050-2098 of the California Fish and Game Code (CFGC) prohibit the take of state-listed endangered and threatened species unless specifically authorized by CDFW. The state definition of "take" is to hunt, pursue, catch, capture, or kill a member of a listed species or attempt to do so. CDFW administers the California Endangered Species Act (CESA) and authorizes take through permits or memoranda of understanding issued under Section 2081 of CFGC or through a consistency determination issued under Section 2080.1. A consistency determination allows CDFW to authorize a project to proceed if that agency agrees with terms and conditions developed for a federal Biological Opinion and Incidental Take Permit. Section 2090 of CFGC requires state agencies to comply with threatened and endangered species protection and recovery and to promote conservation of these species.

Fully Protected Species (CFGC §§ 3511, 4700, 5050, and 5515). CFGC designates certain animal species as "fully protected" under Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish). "Take" permits for fully protected species may only be issued for fully protected species that are "covered" species in a Natural Community Conservation Plan (NCCP). Fully protected species in the San Francisco Bay Area include species such as the California clapper rail (*Rallus longirostris obsoletus*), brown pelican (*Pelecanus occidentalis*), and peregrine falcon (*Falco peregrinus*).

CFGC Protection for Birds (CFGC § 3503 et seq.). CFGC Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 makes it unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird. Section 3513 makes it unlawful to take or possess any migratory non-game birds designated under the MBTA, except as provided by rules and regulations adopted under the MBTA

California Species of Special Concern. "Species of Special Concern" is a designation assigned by the CDFW to species it considers at risk. Species of Special Concern meet one or more of the following criteria: (1) is extirpated from the State or, in the case of birds, in its primary seasonal or breeding role; (2) is federally, but not State, listed as threatened or endangered; meets the State definition of threatened or endangered but has not formally been listed; (3) is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status; (4) has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for State threatened or endangered status. "Species of Special Concern" is an administrative designation intended to focus attention on at-risk species during environmental review and conservation planning. Species of Special

Concern should be considered during the environmental review process. CEQA (California Public Resources Code §§ 21000-21177) requires state agencies, local governments, and special districts to evaluate and disclose impacts from “projects” in the state. Because Section 15380 of the CEQA Guidelines defines endangered, rare or threatened species to include species which meet criteria consistent with the criteria required for listing under the federal and/or state endangered species acts regardless of whether such species are formally listed, Species of Special Concern are appropriately considered in the analysis of project impacts.

Porter-Cologne Water Quality Control Act (Water Code Section 13000 et seq.) This act regulates surface water and groundwater and assigns responsibility for implementing federal CWA Section 401. It established the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs) to protect State waters.

Local

City of Santa Clara General Plan. The City of Santa Clara General Plan was adopted on November 16, 2010, and updated on December 9, 2014. The General Plan goals and policies pertaining to the biological resources are listed below.

Conservation Goals

- Conservation Goal 5.10.1-G1: The protection of fish, wildlife and their habitats, including rare and endangered species.
- Conservation Goal 5.10.1-G2: Conservation and restoration of riparian vegetation and habitat.

Conservation Policies

- Conservation Policy 5.3.1-P10: Provide opportunities for increased landscaping and trees in the community, including requirements for new development to provide street trees and a minimum 2:1 on- or off-site replacement for trees to be removed as part of the proposal to help increase the urban forest and minimize the heat island effect.
- Conservation Policy 5.10.1-P1: Require environmental review prior to approval of any development with the potential to degrade the habitat of any threatened or endangered species.
- Conservation Policy 5.10.1-P2: Work with Santa Clara Valley Water District and require that new development follow the “Guidelines and Standards for Lands Near Streams” to protect streams and riparian habitats.
- Conservation Policy 5.10.1-P3: Require preservation of all City-designated heritage trees listed in the Heritage Tree Appendix 8.10 of the General Plan (see Appendix C of the Arborist Report).
- Conservation Policy 5.10.1-P4: Protect all healthy cedars, redwoods, oaks, olives, bay laurel and pepper trees of any size, and all other trees over 36 inches in circumference measured from 48 inches above-grade on private and public property as well as in the public right-of-way.
- Conservation Policy 5.10.1-P5: Encourage enhancement of land adjacent to creeks in order to foster the reinstatement of natural riparian corridors where possible.
- Conservation Policy 5.10.1-P11: Require use of native plants and wildlife-compatible non-native plants, when feasible, for landscaping on City property.

- Conservation Policy 5.10.1-P12: Encourage property owners and landscapers to use native plants and wildlife-compatible non-native plants, when feasible.

5.4.2 Environmental Impacts and Mitigation Measures

- 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 WITH MITIGATION INCORPORATED.

Special-Status Plants

As described above, the proposed project area is in a highly developed urban area and does not include suitable habitat for any special-status plant species.

Special-Status Wildlife

Based on a reconnaissance site visit and literature review, there are no special-status plants or animals in the project area due to the lack of habitat in this highly urbanized industrial environment. Animals would include urban adapted birds and mammals such as raccoon, skunk, and opossum.

Nesting Birds

A variety of common birds may nest within the project area and in adjacent areas. Nests may be built in trees or other vegetation or on the ground, or on adjacent structures. Birds may also attempt to nest in construction materials or on idle construction equipment.

Nesting birds are protected under the MBTA as well as California Fish and Game Code. Further, raptors (e.g., eagles, hawks, and owls) and their nests are protected under both federal and State regulations. California Fish and Game Codes Section 3503 prohibits the needless destruction of the nest, eggs, or young of any bird covered under the MBTA and Section 3503.5 prohibits the destruction of raptor nests, eggs, or young. Construction disturbance, including tree trimming, tree removal, and other vegetation removal (e.g., shrubs), during the breeding season and avian nesting season that regularly occurs from February 15 through August 31 could adversely impact breeding birds through the removal of potential nesting habitat (e.g., trees and vegetation), damage to nests and injury or mortality to eggs and young, and disruption of nesting behavior or care of young due to noise and disturbance during construction. Because of the urban environment, nesting birds in the project area would likely be somewhat tolerant of noise, dust, and vibration from construction. However, some construction activities in close proximity to nests may still disturb nesting birds, potentially causing nest failure.

To avoid and minimize impacts to nesting birds, SVP would implement the following mitigation measures: MM BIO-1 (Qualified Biologist), which requires a qualified biologist be assigned to the project and conduct periodic site visits, as well as be the main point of contact for construction if a bird is found injured, entrapped, or dead. MM BIO-2 (Worker Environmental Awareness Training) requires all employees on the project and would include nesting birds and protocols if an unanticipated biological resource is encountered. MM BIO-3 (Preconstruction Surveys for Nesting Birds) requires preconstruction surveys for nesting birds by a qualified biologist within 7 days prior to the start of construction (a time window that is necessary to ensure that nests are identified) if tree/vegetation trimming or removal and/or construction activities occur during the bird breeding and nesting season from February 15 through August 31. With the implementation of these measures, impacts to nesting birds would be less than significant.

Collision and Electrocutation

Power lines, communications towers, and other elevated structures are known to pose a threat to birds. The risk of bird collisions with power lines is influenced by a number of factors, including the type and size of bird, weather, visibility, season, surrounding habitat, and size, configuration, and placement of power lines (APLIC, 2012). Collisions with power lines are generally due to poor visibility of electrical lines, but collisions may also occur with other structures such as utility poles and substation structures. Collisions may occur in poor weather or visibility conditions, or when birds are startled and flushed from cover, fleeing from predators, or focused on pursuing prey.

Electrocutation can occur when a bird perches, lands or takes off from a utility pole if the animal makes contact with two conductors to complete the electrical circuit, or simultaneously contacts energized phase conductors and other equipment, or simultaneously contacts an energized wire and a grounded wire. Electrocutation on power lines is a greater potential hazard to larger birds, such as raptors, because their body size and wing span are large enough to span the distance between the conductor wires and thus complete the electrical circuit (APLIC, 2006).

To reduce potential collision and electrocutation risks to birds and bats, SVP would construct the power line in compliance with current Avian Power Line Interaction Committee (APLIC) guidelines (APLIC, 2006). These methods ensure a minimum separation between electrical components to prevent simultaneous contact and covering electrical components with protective materials to prevent contact. Implementation of APLIC guidelines would reduce impacts to birds from electrocutation and collision to a less than significant level.

Mitigation Measures for Nesting Birds

- MM BIO-1 Biological Monitoring.** A qualified biologist will be assigned to the project and will monitor the project periodically. The qualified biologist will be the point of contact for any employee or contractor who might inadvertently kill or injure a special-status species or anyone who finds a dead, injured, or entrapped individual. The qualified biologist or biological monitor shall have the authority and responsibility to halt any project activities that are not in compliance with applicable mitigation measures, APMs, permit conditions, or other project requirements, or will have an unauthorized adverse effect on biological resources.
- MM BIO-2 Worker Environmental Awareness Training.** Prior to construction, a construction employee education program will be conducted in reference to all sensitive environmental resources potentially onsite (e.g., air quality, biological resources, cultural resources, hydrology and water quality, hazardous materials) and the measures associated with their protection (i.e., MMs and applicable laws and regulations).
- MM BIO-3 Preconstruction Nesting Bird Surveys.** Preconstruction nesting bird surveys shall be conducted by a qualified biologist in the project area no more than 7 days before any work activities are performed during the nesting season (February 1 to August 31). Preconstruction nesting bird surveys are also required prior to any vegetation removals or trimming during the nesting season. Surveyors will search for all potential nest types (e.g. ground, cavity, shrub/tree, structural, etc.) and determine whether the nest is active. A nest will be determined to be active if eggs or young are present in the nest. Upon discovery of active nests, appropriate impact minimization measures (e.g., buffers or shielding) will be determined and approved by the biologist. Silicon Valley Power's

biological monitor will determine the use of a buffer or shield and work may proceed based upon: acclimation of the species or individual to disturbance, nest type (cavity, tree, ground, etc.), and level and duration of construction activity.

In the unlikely event a special-status or listed species is found nesting nearby in this urban environment, CDFW and USFWS will be notified and the City of Santa Clara will be provided with nest survey results, if requested. When active nests are identified, monitoring for significant disturbance to the birds will be implemented.

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

NO IMPACT. Sensitive natural communities are communities that have limited distribution statewide or within a county or region and are often vulnerable to the environmental effects of projects. There is no riparian habitat or other sensitive natural community within the proposed project area.

c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) either individually or in combination with the known or probable impacts of other activities through direct removal, filling, hydrological interruption, or other means?

NO IMPACT. The project area is highly urbanized and no waters or wetlands occur in the project area under the jurisdiction of USACE, RWQCB, or CDFW. Therefore, construction of the proposed project would not result in impacts to jurisdictional waters or wetlands.

d. 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 wildlife nursery sites?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. The proposed project area is within a highly urbanized and industrial area and adjacent to busy roadways. However, landscaped areas and trees provide some habitat for avian foraging and breeding. As discussed under Item (a), with implementation of MM BIO-1 (Biological Monitoring), MM BIO-2 (Worker Environmental Awareness Training), and MM BIO-3 (Preconstruction Nesting Bird Surveys), direct and indirect potential impacts to avian foraging and breeding would be less than significant.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. Of the 317 trees documented in the Arborist Report, 194 trees qualify as “protected trees” under the City of Santa Clara General Plan. Based on clearance guidelines provided by project engineers, maximum allowable tree height within 25 feet of the transmission centerline will vary between 27 feet to 35 feet above the ground. Therefore, many trees along the new transmission line and reconducted corridors would need to be pruned to create minimum clearance distances around new poles and transmission lines. In some cases, necessary transmission line clearance pruning may be extensive, altering the tree canopy to a degree that long-term health, and/or acceptable structure or aesthetics will be compromised. In such instances, removal of the tree is recommended. This may especially be the case for tall single stem trees, such as coast redwoods or Mexican fan palms near the transmission centerline. Project engineers have indicated that there may be some flexibility to adjust final design for pole locations to avoid existing trees; however, some trees will likely need to be removed for placement of new poles (Kramer, 2019).

The City of Santa Clara General Plan Conservation Policy 5.10.1-P4 states, “Protect all healthy cedars, redwoods, oaks, olives, bay laurel and pepper trees of any size, and all other trees over 36 inches in circumference measured from 48 inches above-grade on private and public property as well as in the public right-of-way” (2014). Of the 194 trees meeting this criteria in the proposed project area, removal of 24 may be required, and clearance trimming may be required for 111 trees. There are 59 protected trees in the proposed project area that would not be impacted.

This assessment of the project impacts on individual trees is a best estimate based on information available at the time of the report. Once project design is complete, a final assessment of project alignments should be conducted to confirm the actual number of protected trees removed for the project (Kramer, 2019).

No heritage trees, as listed by the City of Santa Clara General Plan Heritage Tree Appendix 8.10, are present within or immediately adjacent to the proposed project.

A Tree Protection Plan and a Tree Replacement Plan will be prepared and implemented by Silicon Valley Power as described in MM BIO-4 and MM BIO-5. The Tree Protection Plan would avoid and minimize impacts to trees, and the Tree Replacement Plan would mitigate for tree removal by replacing trees at a 2:1 ratio. These Plans will also comply with General Plan Policy 5.3.1-P10 and 5.10.1-P4 and to the satisfaction of the City Arborist; therefore, impacts will be less than significant with mitigation.

Mitigation Measures for Tree Protection and Preservation

MM BIO-4 **Tree Protection Plan.** A Tree Protection Plan will be developed by the project arborist and the plan shall be implemented prior to the commencement of any construction activities. The Tree Protection Plan may include, but is not limited to, designation of tree protection zones within which specific construction activities are prohibited; tree protection fencing; special requirements where grading, or vehicle traffic is necessary within a tree protection zone; and/or construction monitoring.

MM BIO-5 **Tree Replacement Plan.** A Tree Replacement Plan will be developed by the project arborist and submitted to the City Arborist and the Director of Community Development for review and approval. Silicon Valley Power will implement one or more of the following measures:

- Trees will be replaced as defined by General Plan Policy 5.3.1-P10 and 5.10.1-P4 and to the satisfaction of the City Arborist.
- An alternative site(s), preferably within a two-mile radius of the project site, will be identified for additional tree planting. Alternative sites may include local parks, schools, and/or street frontages.
- SVP will pay in-lieu fee per required tree replacement to the City of Santa Clara for in-lieu off-site tree planting in the community. The fee amount will be determined by the City’s adopted fee schedule at the time of receiving approval for tree removals. These funds shall be used for tree planting at the required ratio and maintenance of planted trees. A donation receipt for off-site tree planting will be provided to the Director of Community Development prior to issuance of permits.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or State habitat conservation plan?

NO IMPACT. The proposed project area is outside of the Santa Clara Habitat Conservation Plan area.

5.5 Cultural Resources

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 resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

5.5.1 Setting

This section describes the existing cultural and paleontological resources in the Project area and discusses potential impacts associated with the proposed project. Cultural resources are historic and prehistoric archaeological sites, historic-aged architectural or engineering features and structures, and places of traditional cultural significance to Native Americans and other ethnic groups. Paleontological resources include fossil plants and animals, and other evidence of past life, such as preserved animal tracks and burrows, and can include whole geologic units that are documented as containing sensitive and unique paleontological remains. Data provided by fossils contribute to proper stratigraphic interpretations, paleoenvironmental and paleoclimatic reconstructions, and to understanding evolutionary processes.

Environmental Setting

The Project site is in the City of Santa Clara, in Santa Clara County. The project area is an existing urban area surrounded by modern commercial buildings, structures, and residential developments.

Cultural Resources

A summary of the area’s cultural setting is provided below and is organized according to Prehistoric and Historic Periods. The Prehistoric Period covers the era prior to sustained European contact (AD 1776), while the Historic Period covers the time subsequent to that contact. The Ethnohistoric Period is discussed in Section 5.17 (Tribal Cultural Resources).

Archaeological research in the region has been interpreted using a three-part cultural chronological sequence, that was developed by archaeologists to explain local and regional cultural change in prehistoric central California from about 4,500 BP to the time of European contact (Lillard et al., 1939; and Beardsley, 1948, 1954). This classification scheme, consisting of three horizons (i.e., Early, Transitional, and Late) has been revised although the prior nomenclature (Early, Middle, Late Horizon) and is still in common use (Fredrickson, 1994). Moratto (1984) suggests the Early Horizon dated to ca. 4,500 to 3,500/3,000 BP with the Middle Horizon dating to circa 3,500 to 1,500 BP, and the Late Horizon dating to circa 1,500 BP to Spanish contact. Prior to discussing major cultural trends within each of these Horizons, a discussion of the Paleo-Indian Period is provided.

Prehistory

Paleo-Indian Period (11,500–4,500 years before present [BP]). In the broad northern California setting, cultural resources are documented as early as early as 9,000-11,500 BP. Native American occupation and use of the Santa Clara Valley, however, is documented as beginning around 11,000 BP. Natural

environmental changes to the Bay Area landscape have occurred since humans' first arrival. Many of the landforms originally available for human habitation in prehistory were inundated as sea levels rose and flooded the Franciscan Valley, burying sites with sediments. Since the earliest systematic studies of central California and Bay Area archaeology in the 1950s, researchers have recognized that a significant portion of the archaeological record is buried in the fans and massive alluvial plains of the lowland valleys (Heizer, 1949, 1950, 1952; Heizer and Cook, 1953; Lillard et al., 1939; Meighan, 1965).

The earliest cultures of the Paleoindian/Early Holocene Period are largely contemporaneous with the Clovis and Folsom periods of the Great Plains and the southwest and generally considered to be represented by wide-ranging mobile hunters and gatherers who regularly exploited large game. Throughout California, the Paleoindian sites are most often represented by isolated fluted points. Paleoindian cultural material in the Bay Area is sparse. The Coyote Narrows (SCR-177) and Blood Alley (CA-SCL-178) sites in the Santa Clara Valley, are considered two of the oldest cultural deposits in the Bay Area and were discovered in a buried soil, dated between 11,000 and 9,500 years old (Fitzgerald and Porcasi, 2003; Hildebrandt, 1983). Their deposits, which indicate diverse resource exploitation, demonstrate that the general region was occupied throughout this time segment, but strong insight into the nature of this early occupation is still lacking.

Early Horizon (4,500–3,500 BP). The Early Horizon is characterized by a mobile forager pattern throughout the Bay Area. The milling slab and handstone, as well as a variety of large, wide-stemmed and leaf-shaped projectile points, all emerged during this period. Local Franciscan chert dominated the Early Holocene Santa Clara Valley components. The Metcalf Creek Site (SCL-178), a deeply stratified deposit in the southern Santa Clara Valley, yielded cultural materials as deep as 9 meters below the surface (Fitzgerald and Porcasi, 2003). New groundstone technology and the first cut shell beads in mortuaries signal sedentism, regional symbolic integration, and increased regional trade in the Bay Area, beginning at 3500 BP (calibrated date), signaling the end of the Early Horizon.

Middle Horizon (3,500–1,500 BP). Sites of the Middle Horizon period are more common throughout the Santa Clara Valley. These sites usually have deep, stratified deposits that contain large quantities of ash and charcoal, fire-altered rock, and fish, bird, and mammal faunal remains. The presence of significant numbers of mortars and pestles is suggestive of a growing reliance upon gathered plant foods as opposed to hunted animal foods. An increase in violence is suggested by the number of Middle Horizon burials found with projectile points embedded in the bones or with other physical markers of violence (Fitzgerald, 1993).

Late Horizon Period (1,500 BP–A.D. 1769). Sites during this time period are the most numerous and are composed of extensive midden deposits. Important mound/midden sites along the Peninsula margins include the University Village site (SMA-77), the San Bruno Mountain mound (SMA-40), and the Ynigo Mound (SCL-12/H). Several technological and social developments characterize the Late Horizon. Bow and arrow introduced replace atlatl and dart. Dietary emphasis on acorns and seeds are prevalent in the materials recovered from excavated sites. Evidence exists of a large, expansive trade system with surrounding areas to obtain valuable items and resources. Territorial boundaries became well established with evidence of distinctions in social status linked to wealth becoming increasingly common (Clark, 1989; Levy, 1978).

Archaeological information suggests a slow steady increase in the prehistoric population over time with an increasing focus on permanent settlements with large populations in later periods. This change from hunter-collectors to an increased sedentary lifestyle is due both to more efficient resource procurement as well as a focus on staple food exploitation, the increased ability to store food at village locations, and

the development of increasingly complex social and political systems including long-distance trade networks. Prehistoric site types recorded in the region consist of lithic scatters, quarries, habitation sites including main villages, bedrock mortars or other milling feature sites, petroglyph sites, and isolated burial sites.

Ethnography

A review of the ethnographic context for the project area is presented in Section 5.17, Tribal Cultural Resources.

Regional History

The Historic Period of the Santa Clara Valley is generally divided into three major periods: the Spanish period (1777–1821), the Mexican period (1822–1848), and the American period (1848–present).

Spanish Period (A.D. 1777–1821). Spanish explorers in the late 1760s and 1770s were the first Europeans to traverse the Santa Clara Valley. The first party, led by Gaspar de Portola and Father Juan Crespi, arrived in the Alviso-San Jose area in the fall of 1769. The following year, Pedro Fages led another party through the Santa Clara Valley, and in 1772 Fages returned to the same vicinity with Crespi. In 1776, the exploration party of Juan Bautista de Anza and Father Pedro Font traveled through the Santa Clara Valley. The favorable reports of Anza and Font led to the establishment of both Mission Santa Clara and the Pueblo San Jose de Guadalupe in 1777 (Hart, 1987; Winter, 1935; Cutter, 1978).

Mexican Period (A.D. 1822–1848). The Mexican revolt against Spain (1822) followed by the secularization of the missions (1834) changed land ownership patterns in the Santa Clara Valley. The Spanish philosophy of government was directed at the founding of presidios, missions, and secular towns with the land held by the Crown, whereas the later Mexican policy stressed individual ownership of the land. During the Mexican Period, vast tracts of land were granted to individuals, including former mission lands that had reverted to public domain (Broek, 1932; Hendry and Bowman, 1940; Hart, 1987).

American Period (A.D. 1848–Present). The population of the Santa Clara Valley began to expand significantly following the 1848 Gold Rush, followed later by further population expansion during the construction of the railroad to San Francisco in 1864, and the completion of the transcontinental railroad in 1869 (Findlay and Garaventa, 1983). Throughout the late nineteenth century in the Santa Clara Valley, rancho, pueblo, and mission lands were subdivided as the result of population growth, Anglo-American takeover, and the confirmation of property titles. Large cattle ranches were converted to facilitate farming varied crops, and this agricultural land-use pattern continued throughout the American Period. During this period, the first experiments with horticulture and other crops took place. After 1875, the success of many agricultural experiments and expansion of markets via rail encouraged the development of horticulture and fruit production in the Santa Clara Valley. From 1875 onward, the need for an expanding fruit market led to innovations in fruit preservation and shipping, including: drying fruit, canning fruit, and shipping fresh fruit in refrigerated cars. In turn, this created a wider economic boom that attracted new residents to the Santa Clara Valley (Broek, 1932; Winter, 1935). Within the Santa Clara Valley, the City of San Jose served as a County seat, a primary service as well as financial and social center. Since the 1990s, this agrarian land-use pattern has been gradually displaced by residential housing, commercial centers, and the development of research and manufacturing facilities associated with the electronics industry. The contemporary focus on technological advancement has resulted in the designation of the general region as the “Silicon Valley.”

Records Search

Aspen cultural resources specialists conducted a desktop cultural resources assessment of the Project area. This background research included a search of the California Historical Resources Information System, Northwest Information Center (NWIC), and online research of historic maps, images, and online archives. A complete list of online databases used during research can be found in the *Cultural Resources Identification and Evaluation for the SVP South Loop Reconfigure Project, City of Santa Clara, California* (Dyste and Noyer, 2018).

Aspen completed a visit to the NWIC, located at California State University Sonoma, to identify all previously conducted cultural resources surveys and previously recorded cultural resources in the project area. Both the desktop assessment and NWIC search included the project area and a 1/8-mile buffer around the project area boundary. The NWIC search was completed on November 17, 2017.

The results of the NWIC records search indicate that 51 previous cultural resources surveys have been completed within the project area and surrounding 1/8-mile area (see Table 5.5-1). Surveys conducted within the project area did not result in the identification of cultural resources (see page 5-9 for a discussion of relevant cultural resources).

Table 5.5-1. Previously Completed Cultural Resources Reports Within a 1/8-Mile Radius

Report No.	Author	Year	Study
S-005311	Robert Cartier and Charlene Detlefs	1980	Archaeological Evaluation of the San Jose Municipal Airport.
S-007548	Rebecca Loveland Anastasio, John M. Findlay, and Donna M. Garaventa	1985	A Cultural Resources Update Supplement for the Revision of the Rincon de los Esteros Redevelopment Project, City of San Jose, California.
S-007642	Stephen A. Dietz	1985	Santa Clara Post Office Carrier Annex (letter report)
S-008345	Mara Melandry	1980	Archaeological Survey Report, 04-SCL-101, Portions of P.M. 8.3/52.5, Improvements to Route 101 Between Route 17 in San Jose and Embarcadero Road in Palo Alto, Santa Clara County, 04393-389131, 04393-396171
S-008521	Katherine Flynn	1979	Archaeological reconnaissance of approximately 9 miles of Central Expressway from De La Cruz Boulevard to San Antonio Road (WO #872824) (letter report)
S-010001	Rebecca Loveland Anastasio, Angela M. Banet, Donna M. Garaventa, Robert M. Harmon, and Michael R. Fong	1988	A Cultural Resources Assessment for Proposed Widening and Improvements to Highway 101 Between Highways 280/680 and Trimble Road/De La Cruz Avenue, City of San Jose, Santa Clara County, California
S-010001a	Rebecca Loveland Anastasio, Angela M. Banet, Donna M. Garaventa, R. M. Harmon, Michael R. Fong, and Mella J. Rothwell	1988	A Historic Properties Survey Report for Proposed Widening and Improvements to Highway 101 Between Highways 280/680 and Trimble Road/De La Cruz Avenue, City of San Jose, Santa Clara County, California
S-010001b	Rebecca Loveland Anastasio, Angela M. Banet, Donna M. Garaventa, R. M. Harmon, Michael R. Fong, and Mella J. Rothwell	1988	Historic Properties Survey Report for Proposed Widening and Improvements to Highway 101 Between Highways 280/680 and Trimble Road/De La Cruz Avenue, City of San Jose, Santa Clara County, California

Table 5.5-1. Previously Completed Cultural Resources Reports Within a 1/8-Mile Radius

Report No.	Author	Year	Study
S-010154	Rebecca Loveland Anastasio, Angela M. Banet, Donna M. Garaventa, R. M. Harmon, Michael R. Fong, and Mella J. Rothwell	1987	Historic Property Survey of the Proposed Central Expressway Commuter Lane Project Located in the Cities of Santa Clara, Sunnyvale, and Mountain View in Santa Clara County, California
S-010154a	Rebecca Loveland Anastasio, Angela M. Banet, Donna M. Garaventa, R. M. Harmon, Michael R. Fong, and Mella J. Rothwell	1987	Historic Property Survey of the Proposed Central Expressway Commuter Lane Project Located in the Cities of Santa Clara, Sunnyvale, and Mountain View in Santa Clara County, California
S-010154b	Rebecca Loveland Anastasio, Angela M. Banet, Donna M. Garaventa, R. M. Harmon, Michael R. Fong, and Mella J. Rothwell	1987	Historic Property Survey of the Proposed Central Expressway Commuter Lane Project Located in the Cities of Santa Clara, Sunnyvale, and Mountain View in Santa Clara County, California
S-010210	Archaeological Resource Management	1988	Cultural Resource Evaluation of a Parcel at Central Expressway and Scott Blvd. in the City of Santa Clara, County of Santa Clara
S-014230	Robert Cartier, Allika Ruby, Jason Bass, and Mike Kelley	1992	Evaluation of Archaeological Resources for the San Jose/Santa Clara Non-potable Water Reclamation Project
S-014599	Donna M. Garaventa, Steven J. Rossa, Melody E. Tannam, and Deborah M. DiPasqua	1992	Cultural Resources Assessment for the San Jose International Airport Runway 12R/30L Expansion Project EIR, City of San Jose, Santa Clara County, California
S-014599a	James C. Bard	1992	Completion of Archaeological Monitoring, Runway Expansion, San Jose International Airport (SJIA) (letter report)
S-015935	Robert Cartier	1993	Cultural Resource Evaluation of the De La Cruz Boulevard Project in the City of Santa Clara, County of Santa Clara
S-018367	Mark Hylkema	1995	Historic Property Survey Report and Finding of No Effect for the Proposed Ramp Metering and HOV Ramp Project, 4-SCL-101 PM 40.0/52.5, EA 132451
S-018367a	Mark Hylkema	1995	Archaeological Survey Report Addendum #1, for the Proposed Ramp Metering and HOV Ramp Project, 4-SCL-101 PM 40.0/52.5, EA 132451
S-018377	Robert Cartier, Lynne Eckert, Jeanne Goetz, and Jon Reddington	1996	Cultural Resource Evaluation of the Santa Clara Pipe Alignment for the South Bay Water Recycling Project
S-019072	Colin I. Busby, Donna M. Garaventa, Melody E. Tannam, and Stuart A. Guedon	1996	Historic Properties Treatment Plan, South Bay Water Recycling Program.
S-019072a	Colin I. Busby, Donna M. Garaventa, Melody E. Tannam, and Stuart A. Guedon	1996	Supplemental Report: Historic Properties Affected or Potentially Affected by the South Bay Water Recycling Program
S-019072b	Colin I. Busby	1999	South Bay Water Recycling Program – Cultural Resources Program, Subcontract No. 728106.3024, Monitoring Closure Report – Phase 1 (letter report)

Table 5.5-1. Previously Completed Cultural Resources Reports Within a 1/8-Mile Radius

Report No.	Author	Year	Study
S-019424	John Holson	1997	Cultural Resources Survey for the Los Esteros Project, Santa Clara County (letter report)
S-020327	Mark G. Hylkema	1998	Extended Phase I Archaeological Survey Report, Subsurface Presence/Absence Testing at the Woolen Mills Chinatown Site (CA-SCL-807H) and Three Storm Water Detention Basins, for the Route 87 Guadalupe Corridor Freeway Project, City of San Jose, Santa Clara County, California: 04- SCL-87 PM 6.3/9.4, 04-SCL-101 PM 40.2/41.2
S-021180	Colin I. Busby	1997	Archaeological Monitoring – N/B La Cruz, F/S Martin, City of Santa Clara, Santa Clara County, California (letter report)
S-022705	Hannah Ballard, John Holson, and Stephanie Pau	2000	Archaeological Survey and Record Search Results for the MCI WorldCom: Fremont, San Jose 12, San Mateo, and Santa Clara Fiber Optic Segments in Alameda, San Mateo and Santa Clara Counties, California
S-022725	Hannah Ballard, John Holson, and Stephanie Pau	2000	Archaeological Survey and Record Search Results for the Fourteen Broadwing Bay Area Fiber Optic Segments, California: Final Report
S-022819	Wendy J. Nelson, Maureen Carpenter, and Julia G. Costello	2000	Cultural Resources Survey for the Level (3) Communications Long Haul Fiber Optics Project, Segment WS05: San Jose to San Luis Obispo
S-022948	Miley Paul Holman	2000	Archaeological Backhoe Trenching of the Exodus Property, Santa Clara, Santa Clara County, California (letter report)
S-023079	Stuart Guedon	1999	South Bay Water Recycling Program, Cultural Resources Program – Closure Report for Archaeological Monitoring, Lafayette Park at Matthew Street to Alviso Street at Franklin Street, City of Santa Clara (letter report)
S-023364	Colin I. Busby	1999	Historic Properties Affected or Potentially Affected by the South Bay Water Recycling Program (SBWRP), Phase 2 Master Plan, Tasman Drive Interconnection, SC-2 and SC-4 Segments, Cities of Milpitas and Santa Clara, Santa Clara County (letter report)
S-023934	Jones & Stokes	2001	Cultural Resources Investigations for XO California, Inc. Fiber Optic Installations in San Francisco and Santa Clara Counties
S-025173	John Holson, Cordelia Sutch, and Stephanie Pau	2002	Cultural Resources Report for San Jose Local Loops, Level 3 Fiber Optics Project in Santa Clara and Alameda Counties, California
S-025327	John A. Nadolski and Michelle St. Clair	2002	Archaeological Investigations for the 650 Walsh Avenue, Santa Clara Wireless Communications Site, CA 2261D
S-029907	Sean Thal	2005	100-foot monopole, equipment shelter, Fire Station #2 Santa Clara/SF-06210A, 1715 Martin Avenue, Santa Clara, CA

Table 5.5-1. Previously Completed Cultural Resources Reports Within a 1/8-Mile Radius

Report No.	Author	Year	Study
S-030599	Basin Research Associates, Inc.	2004	Archaeological Monitoring Report, Improvement of Runway 30L Extension – 2004 (Airport Master Plan Update), Norman Y. Mineta San Jose International Airport, City of San Jose, Santa Clara County, California
S-030858	Carolyn Losee	2005	New Tower (“NT”) Submission Packet, FCC Form 620, Paragon Mechanical, SJ-026-01
S-033061	Nancy Sikes, Cindy Arrington, Bryon Bass, Chris Corey, Kevin Hunt, Steve O’Neil, Catherine Pruet, Tony Sawyer, Michael Tuma, Leslie Wagner, and Alex Wesson	2006	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project, State of California
S-033061a	SWCA Environmental Consultants	2006	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project, State of California
S-033061b	Nancy E. Sikes	2007	Final Report of Monitoring and Findings for the Qwest Network Construction Project (letter report)
S-035004	Miley Holman and Ian Alexander	2008	A Report of Findings from Mechanical Subsurface Archaeological Testing of the Santa Clara 535 Reed Street Project Area, Santa Clara, Santa Clara County, California
S-036715	Basin Research Associates, Inc.	2009	Historic Property Survey Report/Finding of Effect, South Bay Water Recycling (SBWR) Stimulus Projects, Santa Clara Industrial 1, City of Santa Clara, Santa Clara County
S-036717	Basin Research Associates, Inc.	2009	Historic Property Survey Report/Finding of Effect, South Bay Water Recycling (SBWR) Stimulus Projects, Santa Clara Industrial 2, City of Santa Clara, Santa Clara County
S-038128	Basin Research Associates, Inc.	2010	Historic Property Survey Report/Finding of Effect, South Bay Water Recycling (SBWR), Santa Clara Industrial 3B, City of Santa Clara, Santa Clara County
S-038425	Lorna Billat	2001	Collocation Submission Packet, Paragon Mechanical, CNU3755, 2460 De La Cruz Blvd. Santa Clara City and County
S-039091	Basin Research Associates	2010	Historic Property Survey Report/Finding of Effect, South Bay Water Recycling (SBWR), Santa Clara Industrial 3B, City of Santa Clara, Santa Clara County
S-040756	Philip Kaijankoski, Jack Meyer, and Julia Costello	2012	Extended Phase 1 Subsurface Archaeological Explorations for the U.S. 101/ De La Cruz Boulevard/ Trimble Road Interchange Improvement Project, San Jose, Santa Clara County, California; 04-SCL-101 PM 40.5/41.5, EA 04-234-26470K

Table 5.5-1. Previously Completed Cultural Resources Reports Within a 1/8-Mile Radius

Report No.	Author	Year	Study
S-040756a	Philip Kaijankoski	2012	Historical Resources Compliance Report for the U.S. 101/De La Cruz Boulevard/Trimble Road Interchange Improvement Project, San Jose, Santa Clara County, California, 04-SCL-101 PM 40.5/41.5, EA 04-234-26470K
S-045670	Kathleen Kubal	2014	Historic Property Survey Report, U.S. 101 Express Lanes Project, Santa Clara County, California, Project No. 0412000459/EA 2G7100, 04-SCL-101 PM 16.00/52.55, 04-SCL-85 PM 23.0/24.1
S-045670a	Kathleen Kubal	2014	Supplemental Historic Property Survey Report, U.S. 101 Express Lanes Project, Project No. 0412000459/EA 2G7100, 04-SCL-101 PM 16.00/52.55 – 04-SCL-85 PM 23.0/24.1, Santa Clara County, California
S-045670b	Nancy E. Sikes, Molly Valasik, Amy Glover, Jay Rehor, and Kathleen Kubal	2014	Archaeological Survey Report, U.S. 101 Express Lanes Project, Project No. 0412000459/EA 2G7100, U.S. 101 PM 16.00/52.55 – SR 85 PM 23.0/R24.1, Santa Clara County, California
S-045670c	Jay Rehor		Extended Phase I Study, U.S. 101 Express Lanes Project, Project No. 0412000459/EA 2G7100, U.S. 101 PM 16.00/52.55 – SR 85 PM 23.0/R24.1, Santa Clara County, California
S-045670d	Karin G. Beck		Historical Resources Evaluation Report, U.S. 101 Express Lanes Project, Project No. 0412000459/EA 2G7100, U.S. 101 PM 16.00-52.55, SR 85 PM 23.0-24.1, Santa Clara County, California
S-045670e	Carol Roland-Nawi		Determinations of Eligibility for the Proposed U.S. 101 Express Lanes Project, Santa Clara County, California (concurrence letter)
S-046600	Lorna Billat		New Tower (NT) Submission Packet, FCC Form 620, Silicon Valley Power, CADGP048A
S-046600a	Dana Supernowicz		Architectural Evaluation Study of the Silicon Valley Power Project, DGP Development Site No. DGP048A, 815 Comstock Street, Santa Clara County, California
S-048099	Sunshine Psota		Results of Archaeological Monitoring and Presence/Absence Trenching for SF-1 Data Center Addendum at 555 Reed Street in Santa Clara, Santa Clara County (letter report)

A total of three previously identified cultural resources consisting of two historic structures (P-43-001731 and P-43-003529) and one prehistoric cemetery (P-43-001080) were identified by previous studies (see Table 5.5-2). All three resources are located outside the project area, within 1/8 of a mile distance of the project area boundary.

Table 5.5-2. Previously Recorded Resources Within a 1/8-Mile Radius

Site No.	Resource Type	Location	Name and Description	Eligibility	In APE?
P-43-001080	Prehistoric	Waste Management Building, 715 Comstock Ave., Santa Clara	Burial consisting of at least 10 inhumations, 9 were removed from the site. Groundstone and knapped lithic artifacts were also recovered in direct association.	NRHP; CRHR	No
P-43-001731	Historic	2460 De La Cruz Blvd., Santa Clara	Paragon Mechanical Building	Ineligible	No
P-43-003529	Historic	815 Comstock St., Santa Clara	Santa Clara Public Works Building Maintenance Facility	Ineligible	No

P-43-001080 Prehistoric Cemetery. Recorded in 2010, the cemetery consisted of ten burials and associated materials. Nine of the burials were removed in 2010 by Alan Leventhal, Rosemary Cambra, and Andrew Galven of the Ohlone Families Consulting Services. The resource has not been formally evaluated for its potential eligibility to the NRHP or CRHR. The site was recorded and identified during construction of a waste management facility in 1990. The site record form indicates that lithics, groundstone, and faunal remains were found in direct association with the burials. The burials were identified and recovered during the removal of toxic soils as part of the waste management facility construction. Stratigraphic context indicates that the site was likely located in a freshwater marsh environment that was covered by fill in the 1970s as part of the urban development of Santa Clara City. Due to its location and previous levels of disturbance, it is unlikely to be impacted by the project.

P-43-001731 Paragon Mechanical Building. A steel-sided building constructed in 1959-1960 by the Reliance Steel Corporation. The DPR form indicates this historic structure is intact and has been continuously used since its construction. A resource assessment and evaluation was completed in 2005 and recommended the resource as ineligible to the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR).

P-43-003529 Santa Clara Public Works Building and Maintenance Facility. Resource consists of two buildings constructed in the 1950s and a modern gas compression plant building. A resource assessment and evaluation was completed in 2015 and recommended the resource as ineligible to the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR).

Both historic resources were evaluated in accordance with Section I 5064.5(a)(2)-(3) of the CEQA Guidelines, using the criteria outlined in Section 5024.1 of the California Public Resources Code. The DPR forms note that neither the **Paragon Mechanical Building** or **Santa Clara Public Works Building Maintenance Facility** are directly associated with any important historical events (Criterion A) or persons (Criteria B) recognized in national, state, or local history. Neither is eligible under Criterion C because their construction did not involve any innovative design or construction techniques, but rather, employed standardized construction methods and materials. In addition, further study of the two historic structures and their construction would be unlikely to yield any important scientific data (Criteria D).

Native American Heritage Commission

Aspen cultural resources specialists requested a search of the Sacred Lands File database from the Native American Heritage Commission (NAHC), located in Sacramento, California. The record search of the NAHC Sacred Lands File was completed with negative results (i.e., no records found). However, not all tribal sacred sites are registered with the NAHC. The NAHC therefore recommended that the City engage in

tribal consultation pursuant to AB 52 to identify any possible sacred sites or traditional cultural resources in or near the Project area.

Native American Consultation

Please refer to Section 5.17 (Tribal Cultural Resources) for more detailed information concerning tribal cultural resources and tribal consultation.

Paleontology

The project area lies in the Santa Clara Valley, which is a structural depression filled with mostly unconsolidated Holocene (i.e., less than 11,000 years before present) sediments composed of gravel, sand, silt, and clay. These sediments have washed into the Valley from areas of significantly higher elevations, such as the Santa Cruz Mountains, and other bordering mountains and ridges. The sediment deposition has formed two alluvial fan deposits of two different depositional periods. The younger alluvial fan deposit exposed in the San Jose area is about 20 feet thick (6.6 meters) and overlies an older alluvial fan system. The total sediment thickness is greater than 1,000 feet (328 meters) in the Santa Clara Valley near San Jose.

These alluvial fan deposits overlie Jurassic- to Tertiary-age bedrock of the Franciscan Complex. The Franciscan Complex is a mélangé of greywacke (a type of sandstone), thinly bedded chert, siltstone, and silty shale. In places, the Franciscan Complex is overlain by the sedimentary rocks of the Knoxville Formation (Jurassic in age), which in turn is overlain by the Pliocene to Quaternary Santa Clara Formation, which consists of non-marine sediments.

Macrofossils (mostly marine invertebrates) have been found in isolated localities in hills bordering Santa Clara Valley. Mesozoic fossils found near the study area are most likely derived from two areas: the Sierra Azul Range of the Santa Cruz Mountains, where thin slivers of upper Jurassic and lower Cretaceous rocks are exposed, and a band of upper Jurassic and Cretaceous rocks of the Great Valley Sequence along the west side of the Diablo Range. Specifically, at a site about 3 miles (5 kilometers) east of the Capitol Expressway Corridor, several species of the bivalve *Buchia* have been collected from float (i.e., isolated rocks washed out of a geologic formation and out of context with the surrounding rocks and sediments) of late Jurassic age on the east side of Silver Creek Road. Additional Jurassic *Buchia* have been found south of the Project area near a drainageway located north of San Felipe Road. A diverse assemblage of late Jurassic fossils including bivalves (*Nuculana* sp. and *Parvamussium* sp.), belemnites, ammonites, scaphopods, and corals have been identified about 8 miles (13 kilometers) to the south of the corridor on the north side of a ridge one mile north of the Calero Reservoir dam.

There are no known fossil localities located within the project area, or within the surrounding 1/8-mile area.

Regulatory Background

State

State of California CEQA Guidelines. State of California CEQA Guidelines require that historical resources and unique archaeological resources be taken into consideration during the CEQA planning process (CEQA Guidelines §15064.5; PRC §21083.2). If feasible, adverse effects to the significance of historical resources must be avoided or the effects mitigated (CEQA Guidelines §15064.5(b)(4)). State CEQA Guidelines require that all feasible mitigation be undertaken even if the prescribed mitigation does not mitigate impacts to a less than significant level (California Office of Historic Preservation (OHP) 2001b:6).

The term that CEQA uses for significant cultural resources is “historical resource,” which is defined as a resource that meets one or more of the following criteria: (1) listed in, or determined eligible for listing, in the California Register of Historical Resources (California Register); (2) listed in a local register of historical resources as defined in PRC Section 5020.1(k); (3) identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); or (4) determined to be a historical resource by a project’s lead agency (PRC Section 21084.1 and State CEQA Guidelines §15064.5(a)). A historical resource consists of:

Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.... Generally, a resource shall be considered by the lead agency to be ‘historically significant’ if the resource meets the criteria for listing on the California Register of Historical Resources

CEQA Guidelines Section 15064.5(a)(3). In accordance with State CEQA Guidelines Section 15064.5(b), a project with an effect that may cause a substantial adverse change in the significance of a historical resource is a significant effect on the environment.

CEQA requires a lead agency to determine if an archaeological resource meets the definition of a historical resource, a unique archaeological resource, or neither (State CEQA Guidelines §15064.5(c)). Prior to considering potential impacts, the lead agency must determine whether an archaeological resource meets the definition of a historical resource in State CEQA Guidelines §15064.5(c)(1). If the archaeological resource meets the definition of a historical resource, then it is treated like any other type of historical resource in accordance with State CEQA Guidelines §15126.4. If the archaeological resource does not meet the definition of a historical resource, then the lead agency determines whether it meets the definition of a unique archaeological resource as defined in CEQA Statutes §21083.2(g). In practice, most archaeological sites that meet the definition of a unique archaeological resource also meet the definition of a historical resource. If the archaeological resource meets the definition of a unique archaeological resource, then it must be treated in accordance with CEQA Statutes §21083.2. If the archaeological resource does not meet the definition of a historical resource or a unique archaeological resource, then effects to the resource are not considered significant effects on the environment (State CEQA Guidelines §15064.5(c)(4)).

California Health and Safety Code Section 7050.5. California HSC Section 7050.5 states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner’s authority. If the human remains are of Native American origin, the County Coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification. The NAHC will identify a Native American Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.

Public Resources Code Section 5097.5. PRC Section 5097.5 provides for the protection of cultural resources. This PRC section prohibits the removal, destruction, injury, or defacement of archaeological features on any lands under the jurisdiction of State or local authorities.

PRC Section 5097.5 also affirms that no person shall willingly or knowingly excavate, remove, or otherwise destroy a vertebrate paleontological site or paleontological feature without the express permission of the

overseeing public land agency. It further states under PRC Section 30244 that any development that would adversely impact paleontological resources shall require reasonable mitigation. These regulations apply to projects located on land owned by or under the jurisdiction of the State or any city, county, district, or other public agency (PRC §5097.5). The importance of paleontological resources is based on their scientific and educational value. The Society of Vertebrate Paleontology (SVP) identifies vertebrate fossils, their taphonomic and associated environmental data, and fossiliferous deposits as scientifically significant nonrenewable paleontological resources (SVP, 2010). Botanical and invertebrate fossils and assemblages may also be significant. Absent specific agency guidelines, most professional paleontologists in California adhere to guidelines set forth in “Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources” (SVP, 2010). These categories include high, undetermined, low, and no potential.

California Register of Historical Resources Criteria of Evaluation. The State of California Historical Resources Commission has designed the California Register for use by State and local agencies, private groups, and citizens to identify, evaluate, register, and protect California’s historical resources. The California Register is the authoritative guide to the State’s significant historical and archaeological resources.

The California Register program encourages public recognition and protection of resources of architectural, historical, archaeological, and cultural significance, identifies historical resources for state and local planning purposes, determines eligibility for State historic preservation grant funding, and affords certain protections under CEQA. The following criteria are used when determining if a particular resource has architectural, historical, archaeological, or cultural significance.

- **Criterion 1:** Is the resource associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States?
- **Criterion 2:** Is the resource associated with the lives of persons important to local, California, or national history?
- **Criterion 3:** Does the resource embody the distinctive characteristics of a type, period, region, method of construction, or represent the work of a master or possesses high artistic values?
- **Criterion 4:** Has the resource yielded, or have the potential to yield, information important to the prehistory or history of the local area, California, or the nation?

AB 52 and Tribal Cultural Resources. AB 52 creates and defines a specific type of cultural resource under CEQA, called “tribal cultural resources.” The bill also establishes a formal role for California Native American tribes in the CEQA process and the identification of such resources through consultation with the lead agency (PRC § 21080.3.1(a)). A California Native American tribe is defined as a “Native American tribe located in California that is on the contact list maintained by the Native American Heritage Commission” (NAHC). This definition does not distinguish between federally recognized and non-federally recognized tribal groups, and is therefore more inclusive than the federal definition of “Indian tribe” (PRC § 21073). Provided that a California Native American tribe has requested it, CEQA lead agencies are required to consult with tribes about potential tribal cultural resources in the project area, the potential significance of project impacts, the development of project alternatives and the type of environmental document that should be prepared.

Tribal cultural resources, as defined by CEQA Section 21074(a)(1)-(2), includes either of the following:

1. *Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:*

- a. *Included or determined to be eligible for inclusion in the California Register of Historical Resources.*
 - b. *Included in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).*
2. *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code section 5024.1(c). In applying the criteria set forth in 5024.1(c) for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.*

Tribal representatives are considered experts appropriate for providing lead agencies with substantial evidence regarding the locations, types, and significance of tribal cultural resources within their traditionally and cultural affiliated geographic area (PRC § 21080.3.1(a)). Consultation in the context of AB 52 is defined as the meaningful and timely process of seeking, discussing, and carefully considering the views of others. Consultation should recognize the tribe's potential need for confidentiality regarding places that hold traditional tribal significance. Any information shared between the tribes and the lead agency representatives is protected under confidentiality laws and subject to public disclosure (GC §6254(r); GC §6254.10) and can be disclosed only with the written approval of the Tribes who shared the information (PCR §21082.3(c)(1-2)).

A project that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment (PRC § 21084.2). Consultation with tribes is considered the best way for lead agencies to determine if a project could result in significant environmental impacts to tribal cultural resources (PRC §21080.3.1(a); GC §65352.4).

Local

City of Santa Clara General Plan (2010-2035). The City of Santa Clara's current General Plan provides information to the community to define acceptable development. It is a guide for decisions by the City Council, Planning Commission and other governmental agencies on specific development applications. The current General Plan reports existing conditions, policies and implementation measures for archaeological resources including:

Continue to require archeological investigations of all proposed construction sites in sensitive area, such as within 500 feet of a natural watercourse. An archaeological survey shall be prepared by the project applicant to the City's satisfaction, including limited sub-surface excavation, and possibly to include a detailed subsurface investigation when important resources cannot be avoided. (Ongoing, Planning Div., Bldg. Div.)

Continue to require prior to development, whenever archeological remains are found, a plan for preserving, removing, and recording the find, to be prepared to the City's satisfaction by a professional archeologist. (Ongoing, Planning Div., Bldg. Div.)

In addition, the following Goals and Policies are identified:

Archaeological and Cultural Resources Goals

- **Goal 5.6.3-G1.** Protection and preservation of cultural resources, as well as archaeological and paleontological sites.
- **Goal 5.6.3-G2.** Appropriate mitigation in the event that human remains, archaeological resources or paleontological resources are discovered during construction activities.

Archaeological and Cultural Resources Policies

- **Policy 5.6.3-P1.** Require that new development avoid or reduce potential impacts to archaeological, paleontological and cultural resources.
- **Policy 5.6.3-P2.** Encourage salvage and preservation of scientifically valuable paleontological or archaeological materials.
- **Policy 5.6.3-P3.** Consult with California Native American tribes prior to considering amendments to the City's General Plan.
- **Policy 5.6.3-P4.** Require that a qualified paleontologist/archaeologist monitor all grading and/or excavation if there is a potential to affect archeological or paleontological resources, including sites within 500 feet of natural water courses and in the Old Quad neighborhood.
- **Policy 5.6.3-P5.** In the event that archaeological/paleontological resources are discovered, require that work be suspended until the significance of the find and recommended actions are determined by a qualified archaeologist/paleontologist.
- **Policy 5.6.3-P6.** In the event that human remains are discovered, work with the appropriate Native American representative and follow the procedures set forth in State law.

City of Santa Clara Historical and Landmarks Commission. In order to support its historic preservation goals, the City established a Historical and Landmarks Commission and obtained recognition by the State Office of Historic Preservation of the City as a Certified Local Government (CLG). The City currently uses the following tools to evaluate historic resources:

The Historical and Landmarks Commission advises the City Council on all matters pertaining to historical landmarks, names, and renaming of streets, museums and the establishment thereof in the City, and in the marking and preservation of historical landmarks and places. As required by the State CLG program, the City has established a list of Architecturally or Historically Significant Properties, which is the foundation for the Commission's recommendations.

The Criteria for Local Significance, establishes evaluation measures, to ensure that the resource is at least 50 years old and that the property is associated with an important individual or event, an architectural innovation, and/or an archaeological contribution in order to be deemed significant. The City maintains a list of qualified historic consultants for these evaluations.

Architecturally or Historically Significant Properties refer to prehistoric and historic features, structures, sites or properties that represent important aspects of the City's heritage. Historic Preservation policies strengthen the City's Historic Preservation Goals, providing direction for changes to historic resources and new development proposed within 100 feet of historic properties in order to evaluate any potential effects on the historic context for the resource. A 100-foot radius, defined as the Area of Historic Sensitivity, is approximately equal to all properties abutting, across the street, and adjacent to abutting properties from a historic resource. This would comprise a little less than a typical City block. Preservation of Santa Clara's long history is also supported by policies that protect archaeological resources, such as relics found in burial sites.

City of Santa Clara Criteria for Local Significance. The Criteria for Local Significance were adopted on April 8, 2004, by the City of Santa Clara City Council. These criteria establish evaluation measures that help to determine significance for properties not yet included on the historic list. Any building, site, or property

in the City that is 50 years old or older and meets certain criteria of architectural, cultural, historical, geographical or archeological significance is potentially eligible. As buildings and other resources age, additional properties will be added to the inventory. In order to accomplish this, a property owner can apply to have their property listed as a historic resource, or the City can nominate properties. The Historical and Landmarks Commission evaluates these applications and forwards a recommendation to the City council. Updates to the Historic Preservation and Resource Inventory require an amendment to the General Plan.

■ **Criteria for Historical or Cultural Significance.** To be historically or culturally significant, a property must meet at least one of the following criteria:

1. *The site, building or property has character, interest, integrity and reflects the heritage and cultural development of the city, region, State, or nation.*
2. *The property is associated with a historical event.*
3. *The property is associated with an important individual or group who contributed in a significant way to the political, social and/or cultural life of the community.*
4. *The property is associated with a significant industrial, institutional, commercial, agricultural, or transportation activity.*
5. *A building's direct association with broad patterns of local area history, including development and settlement patterns, early or important transportation routes or social, political, or economic trends and activities.*
6. *Included is the recognition of urban street pattern and infrastructure.*
7. *A notable historical relationship between a site, building, or property's site and its immediate environment, including original native trees, topographical features, outbuildings or agricultural setting.*

■ **Criteria for Architectural Significance.** To be architecturally significant, a property must meet at least one of the following criteria:

1. *The property characterizes an architectural style associated with a particular era and/or ethnic group.*
2. *The property is identified with a particular architect, master builder or craftsman.*
3. *The property is architecturally unique or innovative.*
4. *The property has a strong or unique relationship to other areas potentially eligible for preservation because of architectural significance.*
5. *The property has a visual symbolic meaning or appeal for the community.*
6. *A building's unique or uncommon building materials, or its historically early or innovative method of construction or assembly.*
7. *A building's notable or special attributes of an aesthetic or functional nature. These may include massing, proportion, materials, details, fenestration, ornamentation, artwork or functional layout.*

■ **Criteria for Geographic Significance.** To be geographically significant, a property must meet at least one of the following criteria:

1. *A neighborhood, group or unique area directly associated with broad patterns of local area history.*
2. *A building's continuity and compatibility with adjacent buildings and/or visual contribution to a group of similar buildings.*

3. *An intact, historical landscape or landscape features associated with an existing building.*
4. *A notable use of landscaping design in conjunction with an existing building.*

■ **Criteria for Archaeological Significance.** For the purposes of CEQA, an “important archaeological resource” is one which:

1. *Is associated with an event or person of:*
2. *Recognized significance in California or American history, or*
3. *Recognized scientific importance in prehistory.*
4. *Can provide information, which is both of demonstrable public interest, and useful in addressing scientifically consequential and reasonable or archaeological research questions;*
5. *Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind;*
6. *Is at least 100 years old and possesses substantial stratigraphic integrity; or*
7. *Involves important research questions that historical research has shown can be answered only with archaeological methods.*

5.5.2 Environmental Impacts and Mitigation Measures

a. **Would the project cause a substantial adverse change in the significance of an historical resource pursuant to §15064.5 [§15064.5 generally defines historical resource under CEQA]?**

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. Although no known historical resources have been previously identified within the project area, there remains the possibility that presently unidentified historical resources exist below the ground surface that could be discovered and damaged or destroyed during ground disturbing work, which would constitute a significant impact absent mitigation. Implementation of Mitigation Measure (MM) CR-1 would evaluate and protect unanticipated discoveries of historical resources or tribal cultural resources, thereby reducing this impact to less than significant.

Mitigation Measure for Previously Unidentified Historical Resources

MM CR-1 Worker Training and Management of Unanticipated Discoveries of Historical Resources, Unique Archaeological Resources. SVP shall conduct a worker environmental awareness program (WEAP) for project personnel who might encounter or alter historical resources or important/unique archaeological properties, including construction supervisors and field personnel. The WEAP may include a kickoff tailgate session that describes how to identify cultural resources and what to do if an unanticipated discovery is made during construction, presents site avoidance requirements and procedures to be followed if unanticipated cultural resources are discovered during project construction, and includes a discussion of disciplinary and other actions that could be taken against persons violating historic preservation laws and SVP policies.

If previously unidentified cultural resources are identified during construction activities, construction work within 100 feet of the find shall be halted and directed away from the discovery until a Secretary of the Interior qualified archaeologist assesses the significance of the resource. The archaeologist, in consultation with the City of Santa Clara, State Historic Preservation Officer, any interested Tribes, and any other responsible public agency, shall make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the finds are found to be eligible to the National or California

Registers, qualify as a unique archaeological resource under California Environmental Quality Act Section 21083.2, or are determined to be tribal cultural resource as defined in Section 21074.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. Although no known archaeological resources have been previously identified within the project area, there remains the possibility that presently unidentified archaeological resources exist below the ground surface that could be discovered and damaged or destroyed during ground disturbing work, which would constitute a significant impact absent mitigation. Implementation of MM CR-1 would evaluate and protect unanticipated discoveries of archaeological resources, thereby reducing this potential impact to a less than significant level.

Mitigation Measure for Previously Unidentified Archaeological Resources

MM CR-1 Worker Training and Management of Unanticipated Discoveries of Historical Resources, Unique Archaeological Resources. [see full text under Item (a) above.]

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. There is no indication that human remains are present within the project area. Background archival research failed to find any potential for human remains (e.g., existence of formal cemeteries) in the area; however, there is a documented prehistoric cemetery located within 1/8 mile of the project area boundary. The limited nature of the proposed ground disturbance makes it unlikely that human remains would be unearthed during construction. However, it is possible that previously unknown human remains could be discovered and damaged or destroyed during ground disturbance, which would constitute a significant impact absent mitigation. Implementation of Mitigation Measure CR-2, which requires evaluation, protection, and appropriate disposition of human remains, would reduce this potential impact to a less than significant level.

Mitigation Measure for Disturbance of Human Remains

MM CR-2 Treatment of Human Remains. All human remains discovered are to be treated with respect and dignity. Upon discovery of human remains, all work within 50 feet of the discovery area must cease immediately, nothing is to be disturbed, and the area must be secured. The Santa Clara County Coroner’s Office must be called. The Coroner has two working days to examine the remains after notification. The appropriate land manager/owner of the site is to be called and informed of the discovery. If the remains are located on federal lands, federal land managers, federal law enforcement, and the federal archaeologist must be informed as well, due to complementary jurisdiction issues. It is very important that the suspected remains, and the area around them, are undisturbed and the proper authorities called to the scene as soon as possible, as it could be a crime scene. The Coroner will determine if the remains are archaeological/historic or of modern origin and if there are any criminal or jurisdictional questions.

After the Coroner has determined the remains are archaeological/historic-era, the Coroner will make recommendations concerning the treatment and disposition of the remains to the person responsible for the excavation, or to his or her authorized representative. If

the Coroner believes the remains to be those of a Native American, he/she shall contact the Native American Heritage Commission (NAHC) by telephone within 24 hours.

The NAHC will immediately notify the person it believes to be the most likely descendant (MLD) of the remains. The MLD has 48 hours to make recommendations to the land owner for treatment or disposition of the human remains. If the descendant does not make recommendations within 48 hours, the land owner shall reinter the remains in an area of the property secure from further disturbance. If the land owner does not accept the descendant's recommendations, the owner or the descendant may request mediation by NAHC.

According to the California Health and Safety Code, six (6) or more human burials at one (1) location constitute a cemetery (Section 8100), and willful disturbance of human remains is a felony (Section 7052).

5.6 Energy

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

5.6.1 Setting

The proposed project would construct and operate new 60 kV single and double circuit transmission line segments for Silicon Valley Power (SVP) along the SVP's existing Central, East and South Transmission Line Loops. With the project, SVP would build new transmission line segments in order to shift electrical load demand currently served by the South and Central Loop Circuits to the East Loop Circuit to increase capacity and system reliability. SVP has been experiencing rapid load growth driven by large data center customers (SVP, 2018).

Silicon Valley Power is an enterprise of the City of Santa Clara and serves as Santa Clara's municipal electric utility. On a not-for-profit basis, Silicon Valley Power owns power generation facilities, has investments in joint ventures that produce electric power, and trades power on the open market. These efforts are directed toward ensuring its retail electricity customers (the citizens, organizations and business of the City of Santa Clara) a highly reliable source of electric power at low, stable rates (City of Santa Clara, 2016).

The energy sources that make up the mix of power supplied to SVP's customers, relative to the 2017 California power mix, are summarized from utility-specific Power Content Label data gathered by the California Energy Commission shown in Table 5.6-1 (CEC, 2018).

Table 5.6-1. Energy Sources of Electricity Supplied to Customers (Power Content)

Energy Resources	SVP Standard Power Mix	Santa Clara Green Power Mix	2017 California-wide Power Mix
Eligible Renewable	35%	1%	29%
Biomass & biowaste	3%	0%	2%
Geothermal	2%	0%	4%
Eligible hydroelectric	16%	0%	3%
Solar	2%	1%	10%
Wind	12%	0%	10%
Coal	9%	0%	4%
Large Hydroelectric	34%	0%	15%
Natural Gas	16%	0%	34%
Nuclear	0%	0%	9%
Other	3%	99%	< 1%
Unspecified sources of power*	3%	0%	9%
Total	100%	100%	100%

*"Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources.
Source: CEC 2017 Power Content Label, Version: July 2018.

For recent years up to 2018, the average annual electricity consumption served to SVP customers is approximately 3,384 million kilowatt-hours (kWh). Table 5.6-2 shows the baseline electricity consumption by the SVP loads over the prior five years, separated by customer classes.

Table 5.6-2. Electricity Consumption for Load Served by SVP (million kWh per year)

Sector, Served by SVP	2014	2015	2016	2017	2018	Average (5-year)
Ag & Water Pump	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Commercial Building	1,525.5	1,953.6	2,216.7	2,431.6	2,437.6	2,113.0
Commercial Other	51.4	44.6	42.3	42.7	42.3	44.7
Industry	1,126.1	986.8	911.7	934.4	878.6	967.5
Mining & Construction	40.6	20.2	19.1	19.6	25.2	25.0
Residential	233.8	228.4	222.2	230.6	225.6	228.1
Streetlight	8.7	6.5	4.3	4.3	4.3	5.6
SVP Total Usage	2,986.1	3,240.1	3,416.4	3,663.2	3,613.7	3,383.9

Note: Usage expressed in millions of kWh (one million kWh equals one gigawatt-hour or GWh).
Source: CEC, 2019; Electricity Consumption by Entity.

Regulatory Background

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 California Public Utilities Commission (CPUC) and California Energy Commission (CEC) have overseen the plans, policies, and programs for prioritizing the preferred resources, including energy efficiency and renewable energy.

California’s Renewables Portfolio Standard (RPS). Electric utilities in California must procure a minimum quantity of the electricity sales from eligible renewable energy resources as specified by RPS requirements. The most-recent update to the RPS targets was set forth in 2018 with the “100 Percent Clean Energy Act of 2018” [Senate Bill 100 (SB 100)], which establishes the policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers by December 31, 2045. SB 100 requires the CPUC and CEC to ensure that implementation of this policy does not cause or contribute to greenhouse gas emissions increases elsewhere in the western grid.

Integrated Resource Planning. An Integrated Resource Plan (IRP) is an electricity system planning document that lays out the energy resource needs, policy goals, physical and operational constraints, and the general priorities or proposed resource choices of an electric utility, including customer-side preferred resources. Through Senate Bill 350 (De León, Chapter 547, Statutes of 2015) (SB 350), the publicly owned utilities (POU) such as SVP must adopt and file an IRP that is subject to a review by the CEC for consistency with statewide targets for energy efficiency, renewable resources, and greenhouse gas emissions reductions.

State CEQA Guidelines. The California Natural Resources Agency adopted certain amendments to the State CEQA Guidelines effective in 2019, to change how CEQA Lead Agencies consider the environmental impacts of energy use. CEQA Guidelines Section 15126.2(b) and Appendix F require analysis of a project's energy use, in order to assure that energy implications are considered in project decisions. CEQA requires a discussion of the potential environmental effects of energy resources used by projects, with particular emphasis on avoiding or reducing the "wasteful, inefficient, and unnecessary consumption of energy" (see Public Resources Code section 21100(b)(3)).

5.6.2 Environmental Impacts and Mitigation Measures

a. 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. With the proposed project, SVP would reconductor and build new 60 kV single- and double-circuit transmission line segments to shift electrical load demand currently served by the South and Central Loop Circuits to the East Loop Circuit, which would increase capacity and system reliability. An objective of the proposed project is to respond to the growth of electrical load of SVP's customers. The proposed project would achieve this objective by facilitating an increase in the capacity of SVP's transmission system to transfer electrical power to its customers.

Construction

LESS THAN SIGNIFICANT. Construction activity associated with the proposed project would require the consumption of fossil fuel resources, for example diesel fuel and gasoline to power the off-road construction equipment and construction vehicles. Additionally, construction would require the manufacture and delivery of new equipment and materials, which would require energy use. Depending on materials, some of the debris to be removed as part of the project would be salvageable and recyclable.

Operation and Maintenance

NO IMPACT. Operations, including inspection, patrol, and maintenance, of the proposed project components would also require use of fossil fuel resources. However, no new crews would be added by the project, and maintenance would be incorporated to SVP's existing maintenance programs. The operation and maintenance activities would not change from SVP's existing activities, and thus, operation would not cause any change in the consumption or use of energy resources.

The energy used by the proposed project during construction would not be wasteful, inefficient, or unnecessary in light of the new facilities that would increase capacity and system reliability, and no potentially significant environmental impact would occur due to the direct or indirect energy consumption of the proposed project.

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

LESS THAN SIGNIFICANT. The proposed project would construct and operate new 60 kV single- and double-circuit transmission line segments. The project would reconfigure the facilities in response to load growth and enhance reliability. The project would improve SVP's ability to reliably supply renewable energy from SVP's power supply mix to end-use customers.

The 2018 IRP shows that the SVP system had a peak load of 586 MW on September 1, 2017 (SVP, 2018). Since 2011, SVP had seen a steady 2 to 3 percent increase in demand, until 2015-2017 when the average

growth increased to 5 percent or more each year. With recent load growth of 5 to 7 percent and increasing demand from data centers, SVP plans to increase the capacity of its existing system (SVP, 2018). SVP identifies the proposed project as part of the 2018 IRP that plans for the load growth by increasing the capacity and enhancing reliability of the system. By improving the ability of SVP's transmission system to bring electrical power to customers, the proposed project would improve the efficiency of the system's ability to deliver electricity to California's end users.

The proposed project would not conflict with any state or local plan for prioritizing renewable energy or energy efficiency. This impact would be less than significant, and no mitigation is required.

5.7 Geology and Soils

GEOLOGY AND SOILS

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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic groundshaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Be located on geologic units 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Section 1803.5.3 of the California Building Code (2019), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

5.7.1 Setting

This section describes geology, soils, and seismic conditions and analyzes environmental impacts related to geologic and seismic hazards that are expected to result from the implementation of the proposed project. The following discussion addresses existing environmental conditions in the affected area, identifies and analyzes environmental impacts, and recommends measures to reduce or avoid any adverse impacts anticipated from Project construction and operation. In addition, existing laws and regulations relevant to geologic and seismic hazards are described. In some cases, compliance with these existing laws and regulations would serve to reduce or avoid certain impacts that might otherwise occur with the implementation of the project.

Baseline geologic, seismic, and soils information were collected from published and unpublished literature, GIS data, and online sources for the proposed project and the surrounding area. Data sources included the following: geologic literature from the U.S. Geological Survey and California Geological Survey, and online reference materials (See Appendix A). The study area was defined as the locations of proposed project components and the areas immediately adjacent to the proposed project for most geologic and soils issue areas with the following exception: the study area related to seismically induced ground shaking includes significant regional active and potentially active faults within 50 miles of the proposed project.

Regional Geologic Setting

The City of Santa Clara is located in the Santa Clara Valley (Valley), a relatively flat alluvial basin. The Santa Cruz Mountains borders the Valley to the southwest and west. The Diablo Mountain Range borders the Valley to the east and the San Francisco Bay borders the Valley to the north. The Valley rises from sea level at the southern end of San Francisco Bay to more than 2,000 feet to the east. The average grade of the valley floor ranges from nearly 0, or horizontal, to about 2 percent, with the surrounding hillsides have steeper grades. (City of Santa Clara, 2011)

The Santa Clara Valley is located within the Coast Ranges geomorphic province of California. This area is characterized by ridges and valleys and by strongly deformed sedimentary and metamorphic rocks of the Franciscan Complex and sediments deposited by a series of merging alluvial fans from streams that drain the adjacent mountains during recent geologic times. The area's groundwater aquifers are made up by the alluvial sediments. The alluvial deposits in the Valley derive from the Diablo Range and the Santa Cruz Mountains. In the north-central area of the Valley, the alluvial deposits are interbedded with bay and lacustrine deposits. Soil types in the area include clay (low-lying central areas), loam and gravelly loam (northern area of the Valley), and eroded rock clay loam (foothills). (City of Santa Clara, 2011)

Local Geology

Most of the City of Santa Clara is located on a gently sloping area of the valley floor in the north-central portion of the Santa Clara Valley. The City is situated on alluvial fan deposits of the Santa Clara Valley. The deposits consist of gravel, sand and finer sediments. Natural levee deposits consisting of silt and clay are located along the City's major streams. Man-made engineered levees have been constructed over many but not all of the natural levee deposits for flood control. (City of Santa Clara, 2011)

Artificial Fill

Artificial fill, often referred to as undocumented or man-made fill, has been placed throughout the City of Santa Clara. Generally, artificial fill is comprised varying amounts of sand, clay, and gravel, with local areas of man-made debris such as lumber, concrete and brick fragments, and industrial slag materials. Consistency of the clays range from soft to very stiff, and density of the sands range from very loose to medium dense. The artificial fills in the City include materials that were placed to fill in naturally low areas, to create building pads and roadways, and to construct landfills. In some cases, older, non-engineered fills have been placed in the City without standards for fill materials or compaction. Building on non-engineered fills can result in the excessive settlement of structures, pavements, and utilities. However, artificial fills placed using current engineering practices would avoid impacts from excessive or differential settlement. (City of Santa Clara, 2011)

Soils

Soils within the proposed project area reflect the underlying rock type, the extent of weathering of the rock, the degree of slope, and the degree of human modification. Expansive soils are characterized by their ability to undergo significant volume change (shrink and swell) due to variations in soil moisture content. Changes in soil moisture can result from rainfall, landscape irrigation, utility leakage, roof drainage, and/or perched groundwater. Expansive soils are typically very fine grained with a high to very high percentage of clay. Such soil conditions can impact the structural integrity of buildings and other structures. Soils with moderate to high shrink-swell potential would be classified as expansive soils.

Expansion potential is generally moderate in the alluvial fan in the southern part of the City and in plain soils. The expansion potential is high in the alluvial plain/valley floor soils in the northern part of the City.

Weak soils can compress, collapse, or spread laterally under the weight of buildings and fill, causing settlement relative to the thickness of the weak soil. Usually the thickness of weak soil will vary and differential settlement will occur. Weak soils also tend to amplify shaking during an earthquake, and can be susceptible to liquefaction, as discussed further in sections below. (City of Santa Clara, 2011) According to hazard mapping compiled by the County of Santa Clara (2012), only soils near the Bay at the City's northernmost edge are identified as compressible.

Potential soil erosion hazards vary depending on the use, conditions, and textures of the soils. The properties of soil that influence erosion by rainfall and runoff are those that affect the infiltration capacity of a soil, and those that affect the resistance of a soil to detachment and being carried away by falling or flowing water. Additionally, soils on steeper slopes would be more susceptible to erosion due to the effects of increased surface flow (runoff) on slopes where there is little time for water to infiltrate before runoff occurs. Soils containing high percentages of fine sands and silt and that are low in density, are generally the most erodible. With increasing clay and organic matter content of these soils, the potential for erosion decreases. Clays act as a binder to soil particles, thus reducing the potential for erosion. Soil erosion hazards are low throughout the City of Santa Clara (City of Santa Clara, 2011).

Slope Stability

Important factors that affect the slope stability of an area include the steepness of the slope, the relative strength of the underlying rock material, and the thickness and cohesion of the overlying colluvium and alluvium. The steeper the slope and/or the less strong the rock, the more likely the area is susceptible to landslides. The steeper the slope and the thicker the colluvium, the more likely the area is susceptible to debris flows. Another indication of unstable slopes is the presence of old or recent landslides or debris flows.

Since the City of Santa Clara is located on a gently sloping and nearly flat valley floor, the City is not subject to landslide risk. According to landslide hazard mapping compiled by the County of Santa Clara (2012), the City of Santa Clara is not within a landslide hazard zone.

Seismicity

Seismic faults can be classified as historically active, active, potentially active, or inactive, based on the following criteria (CGS, 1999):

- Faults that have generated earthquakes accompanied by surface rupture during historic time (approximately the last 200 years) and faults that exhibit aseismic fault creep are defined as Historically Active.
- Faults that show geologic evidence of movement within Holocene time (approximately the last 11,000 years) are defined as Active.
- Faults that show geologic evidence of movement during the Quaternary (approximately the last 1.6 million years) are defined as Potentially Active.
- Faults that show direct geologic evidence of inactivity during all of Quaternary time or longer are classified as Inactive.

Although it is difficult to quantify the probability that an earthquake will occur on a specific fault, this classification is based on the assumption that if a fault has moved during the Holocene epoch, it is likely to produce earthquakes in the future.

Periodic earthquakes accompanied by surface displacement can be expected to continue in the City. Active and potentially active faults within 50 miles of the project alignments that are significant potential seismic sources relative to the proposed project are presented in Table 5.7-1.

Table 5.7-1. Significant Active and Potentially Active Faults within 50 miles of the Proposed Project

Fault Name	Distance ¹ (miles)	Location Relative to Project	Estimated Maximum Magnitude ^{2,3}
Calaveras	2.85		6.3–7.0
Monte Vista-Shannon	14.8		6.5
Ortogonalita	16.3		7.1
San Andreas	17.64	South of the proposed project.	7.1
Greenville	19.3		7.0
Zayante-Vergeles	21.1		7.0
Hayward-Rodgers Creek	22.3		6.8–7.3
Quien Sabe	23.2		6.6
Great Valley 8	26.5		6.8
Great Valley 7	27.2		6.9
Great Valley 9	33.1		6.8
Monterey Bay-Tularcitos	36.7		7.3
Mount Diablo Thrust	37.8		6.7
Rinconada	38.9		7.5
San Gregorio	39.8		7.5

1 - Fault distances obtained from the 2008 National Seismic Hazard Maps – Source Parameters website (USGS, 2018).

2 - Maximum Earthquake Magnitude – the maximum earthquake that appears capable of occurring under the presently known tectonic framework; magnitude listed is “Ellsworth-B” magnitude from USUSGS OF08-1128 (Documentation for the 2008 Update of the U.S. National Seismic Hazard Maps) unless otherwise noted.

3 - Range of Magnitude represents varying potential rupture scenarios with single or multiple segments rupturing in various combinations.

Fault Rupture

Fault rupture is the surface displacement that occurs when movement on a fault deep within the earth breaks through to the surface. Fault rupture and displacement almost always follows preexisting faults, which are zones of weakness; however, not all earthquakes result in surface rupture (i.e., earthquakes that occur on blind thrusts do not result in surface fault rupture). Rupture may occur suddenly during an earthquake or slowly in the form of fault creep. In addition to damage caused by ground shaking from an earthquake, fault rupture is damaging to buildings and other structures due to the differential displacement and deformation of the ground surface that occurs from the fault offset leading to damage or collapse of structures across this zone.

While the closest fault to the project site is the active Calaveras fault, no known active or potentially active faults are mapped crossing or immediately adjacent to the proposed project route. The City does not contain any faults zoned under the Alquist-Priolo Earthquake Fault Zoning Act (CGS, 2007, as cited in City of Santa Clara, 2011). There is no risk of surface fault rupture in the City of Santa Clara (County of Santa Clara, 2012).

Ground Shaking

An earthquake is classified by the amount of energy released, which traditionally has been quantified using the Richter scale. Recently, seismologists have begun using a Moment Magnitude (M) scale because it provides a more accurate measurement of the size of major and great earthquakes. For earthquakes of

less than M 7.0, the Moment and Richter Magnitude scales are nearly identical. For earthquake magnitudes greater than M 7.0, readings on the Moment Magnitude scale are slightly greater than a corresponding Richter Magnitude.

The intensity of the seismic shaking, or strong ground motion, during an earthquake is dependent on the distance between the project area and the epicenter of the earthquake, the magnitude of the earthquake, and the geologic conditions underlying and surrounding the project area. Earthquakes occurring on faults closest to the project area would most likely generate the largest ground motion. Earthquake damage resulting from ground shaking is determined by several factors: the magnitude of an earthquake, depth of focus, distance from the fault, intensity and duration of shaking, local groundwater and soil conditions, presence of hillsides, structural design and the quality of workmanship and materials used in construction. The USGS National Seismic Hazard (NSH) Maps were used to estimate approximate peak ground accelerations (PGAs) in the proposed project area. The NSH Maps depict peak ground accelerations with a 2 percent probability of exceedance in 50 years which corresponds to a return interval of 2,475 years and for a maximum considered earthquake. The estimated approximate peak ground acceleration from large earthquakes for the project area is 0.80 g, which corresponds to strong ground shaking (USGS, 2014). The City is located in a region characterized by a moderate to high ground shaking hazard. (City of Santa Clara, 2011)

Liquefaction

Liquefaction is the phenomenon in which saturated granular sediments temporarily lose their shear strength during periods of earthquake-induced strong ground shaking. The susceptibility of a site to liquefaction is a function of the depth, density, and water content of the granular sediments and the magnitude and frequency of earthquakes in the surrounding region. Saturated, unconsolidated silts, sands, and silty sands within 50 feet of the ground surface are most susceptible to liquefaction. Liquefaction-related phenomena include lateral spreading, ground oscillation, flow failures, loss of bearing strength, subsidence, and buoyancy effects (Youd and Perkins, 1978). In addition, densification of the soil resulting in vertical settlement of the ground can also occur. In order to determine liquefaction susceptibility of a region, three major factors must be analyzed. These include: (a) the density and textural characteristics of the alluvial sediments; (b) the intensity and duration of ground shaking; and (c) the depth to groundwater.

The City of Santa Clara is almost entirely within the zone of liquefaction hazard (County of Santa Clara, 2012). Ground failure caused by liquefaction is thus a substantial concern for much of the City's development. Based on County hazards mapping, the City's southern edge, approaching Stevens Creek Boulevard and Interstate 280, is likely at less risk of liquefaction due to the underlying soil types (City of Santa Clara, 2011).

Regulatory Background

Federal

The Clean Water Act. The Clean Water Act establishes the basic structure for regulating discharges of pollutants into the Waters of the U.S. The Act authorized the Public Health Service to prepare comprehensive programs for eliminating or reducing the pollution of interstate waters and tributaries and improving the sanitary condition of surface and underground waters with the goal of improvements to and conservation of waters for public water supplies, propagation of fish and aquatic life, recreational purposes, and agricultural and industrial uses. The proposed project construction may disturb a surface area greater than one acre; therefore, SVP would be required to obtain a National Pollution Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction

Activity under Clean Water Act regulations. Compliance with the NPDES would require that the applicant prepare and submit a Storm Water Pollution Prevention Plan (SWPPP).

The International Building Code (IBC). The International Building Code (IBC) is published by the International Code Council (ICC). The scope of this code covers major aspects of the design and construction of structures and buildings, except for three-story one- and two-family dwellings and town homes. The International Building Code has replaced the Uniform Building Code as the basis for the California Building Code and contains provisions for structural engineering design. The 2018 IBC addresses the design and installation of structures and building systems through requirements that emphasize performance. The IBC includes codes governing structural as well as fire- and life-safety provisions covering seismic, wind, accessibility, egress, occupancy, and roofs.

State

The California Building Code, Title 24, Part 2 (CBC, 2019). The California Building Code, Title 24, Part 2 provides building codes and standards for design and construction of structures in California. The 2019 CBC is based on the 2018 International Building Code with the addition of more extensive structural seismic provisions. Chapter 16 of the CBC contains definitions of seismic sources and the procedure used to calculate seismic forces on structures.

The Alquist-Priolo Earthquake Fault Zoning Act of 1972, Public Resources Code (PRC), sections 2621–2630 (formerly the Special Studies Zoning Act). The Alquist-Priolo Earthquake Fault Zoning Act regulates development and construction of buildings intended for human occupancy to avoid the hazard of surface fault rupture. While this Act does not specifically regulate transmission and telecommunication lines; it does help define areas where fault rupture is most likely to occur. This Act groups faults into categories of active, potentially active, and inactive faults. Historic and Holocene age faults are considered active, Late Quaternary and Quaternary age faults are considered potentially active, and pre-Quaternary age faults are considered inactive. These classifications are qualified by the conditions that a fault must be shown to be “sufficiently active” and “well defined” by detailed site-specific geologic explorations in order to determine whether building setbacks should be established.

The Seismic Hazards Mapping Act (the Act) of 1990 (Public Resources Code, Chapter 7.8, Division 2, sections 2690–2699). The Act directs the California Department of Conservation, Division of Mines and Geology [now called California Geological Survey (CGS)] to delineate Seismic Hazard Zones. The purpose of the Act is to reduce the threat to public health and safety and to minimize the loss of life and property by identifying and mitigating seismic hazards. Cities, counties, and State agencies are directed to use seismic hazard zone maps developed by CGS in their land-use planning and permitting processes. The Act requires that site-specific geotechnical investigations be performed prior to permitting most urban development projects within seismic hazard zones.

Local

City of Santa Clara General Plan. The purpose of the City’s safety policies is to identify potential hazards and measures that can lessen risks for the City’s population and property. The following policies in the General Plan generally relate to the proposed project (City of Santa Clara, 2014):

- **Policy 5.10.5-P5.** Regulate development, including remodeling or structural rehabilitation, to ensure adequate mitigation of safety hazards, including flooding, seismic, erosion, liquefaction and subsidence dangers.

- **Policy 5.10.5-P6.** Require that new development is designed to meet current safety standards and implement appropriate building codes to reduce risks associated with geologic conditions.
- **Policy 5.10.5-P7.** Implement all recommendations and design solutions identified in project soils reports to reduce potential adverse effects associated with unstable soils or seismic hazards.
- **Policy 5.10.5-P10.** Support efforts by the Santa Clara Valley Water District to reduce subsidence.

5.7.2 Environmental Impacts and Mitigation Measures

a. Would the project 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.*

NO IMPACT. No known faults are located in a manner that would cross the proposed new 60 kV transmission line or would be immediately adjacent to it. Therefore, there is no potential for the project to directly or indirectly cause primary fault rupture.

- ii) Strong seismic ground shaking?*

LESS THAN SIGNIFICANT. The proposed project would be located in an area mapped as likely to experience strong ground shaking in the event of a large earthquake with PGA's of 0.70 or a 2 percent probability of exceedance in 50 years. The area has historically experienced moderate to severe groundshaking due to the numerous earthquakes that have occurred in the San Francisco Bay Area, as shown in Table 5.7-2. These earthquakes have resulted in severe damage to structures, millions of dollars in property damage, and deaths.

The existing and new 60 kV transmission line have been and would be designed to a wind loading standard that generally also exceeds seismic loading criteria, thus reducing the risk of a pole failing during a seismic event. The potential for earthquake-induced groundshaking damage to the new poles would not change from the current conditions; therefore, there would be a less-than-significant impact for the project to directly or indirectly cause substantial adverse effects as a result of groundshaking.

- iii) Seismic-related ground failure, including liquefaction?*

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. The proposed project route is located in the City of Santa Clara, which is almost entirely within the zone of liquefaction hazard. Therefore, the potential for liquefaction-related damage to newly constructed poles along the proposed 60 kV transmission line is high. To ensure that direct and indirect impacts associated with seismically induced ground failures or liquefaction would be less than significant, Mitigation Measure G-1 (Conduct Geotechnical Investigations for Liquefaction) shall be implemented prior to final project design to ensure that people or structures are not exposed to hazards from the project associated with earthquake-induced liquefaction.

Mitigation Measure for Seismically Induced Liquefaction

MM G-1 Conduct Geotechnical Investigations for Liquefaction. Because seismically induced liquefaction-related ground failure has the potential to damage or destroy project components, the design-level geotechnical investigations to be performed by SVP shall consider investigations designed to assess the potential for liquefaction to affect the new

project poles in the City of Santa Clara where there is high potential for liquefaction-related impacts. Where these hazards are found to exist, appropriate engineering design and construction measures shall be incorporated into the project designs as deemed appropriate by the project engineer. Design measures that would mitigate liquefaction-related impacts could include bigger foundations, installation of flexible bus connections, and/or incorporation of slack in cables to allow ground deformations without damage to structures.

iv) Landslides?

NO IMPACT. The proposed project would be located on a traverse flat to relatively flat topography and no known landslides occur in the immediate project vicinity; therefore, landslides and other slope failures are highly unlikely to occur. There would be no impact related to landslides or slope instability.

b. Would the project result in substantial soil erosion or the loss of topsoil?

LESS THAN SIGNIFICANT. Increased rates of soil erosion are not expected to result from the installation of structures for the new 60 kV transmission line segments or replacement of the existing wood poles to tubular steel poles due to the limited amount of surface ground disturbance anticipated for construction of these features. No trenching or extensive grading will be required for construction of the proposed project that would expose and loosen soils and result in potential erosion or loss of topsoil. Therefore, there would be a less than significant impact.

c. Would the project be located on geologic units or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. As discussed above in Item (a)(iii) regarding liquefaction, the proposed project would be constructed in an area within the zone of liquefaction hazard; therefore, structures could potentially suffer liquefaction-related damage. However, implementation of Mitigation Measure G-1 (Conduct geotechnical investigations for liquefaction) prior to final project design would ensure that people or structures are not exposed to hazards associated with earthquake-induced liquefaction, reducing the impact to less than significant. Additionally, as discussed above in Item (a)(iv) Landslides, there would be no impact from landslides as the proposed project is located on and traverses flat to gently sloping terrain and would not be subject to landslides.

d. Would the project located on expansive soil, as defined in Section 1803.5.3 of the California Building Code (2019), creating substantial direct or indirect risks to life or property?

NO IMPACT. Based on the geologic and soils units underlying the proposed project area and the hazard mapping compiled by the County of Santa Clara (2012), expansive soils are not expected to occur. Therefore, there would be no impact.

e. 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 any components requiring septic tanks or alternative wastewater systems. Therefore, there would be no impact.

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. The proposed project is anticipated to disturb the ground surface up to depths of 30 feet, and thus has some potential to impact older Quaternary Alluvium, which is known to appear at depths below 20 feet, and has the potential to contain unique paleontological resources or sites, or unique geologic features. Therefore, there is a low possibility that previously unknown paleontological resources or unique geologic features could be discovered and damaged or destroyed during ground disturbance, which would constitute a significant impact absent mitigation. Implementation of MM G-2 would evaluate and protect unanticipated discoveries of unique paleontological resources or unique geologic features, thereby reducing this potential impact to a less than significant level.

Mitigation Measure for Previously Unidentified Paleontological Resources

MM G-2 Worker Training and Management of Unanticipated Discoveries of Paleontological Resources. In the event that unanticipated paleontological resources or unique geologic resources are encountered during ground-disturbing or other construction activities, a paleontologist must be retained who meets the professional paleontologist qualifications (Society of Vertebrate Paleontology's Standard Procedures, 2010) and has demonstrated experience in carrying paleontological projects to completion. This qualified paleontologist must develop and implement a Paleontological Resources Management Plan (PRMP) for the project area that meets the standards set forth by the Society of Vertebrate Paleontology (2010). This shall include:

- A Worker Environmental Awareness Program (WEAP) wherein all construction personnel are trained on the processes to be followed upon encountering any fossils.
- A monitoring plan for ground disturbing activities that provides the monitor(s) with the authority to temporarily halt or divert equipment. Monitors shall be onsite for any disturbance of sediments with high or unknown paleontological sensitivity. Monitors must have demonstrated sufficient paleontological training and field experience to have acceptable knowledge and experience of fossil identification, salvage and collection methods, paleontological techniques, and stratigraphy.
- A recovery plan for significant fossils that provides for the treatment of specimens to the point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates.
- A specimen identification, analysis, and curation plan that includes identification to the lowest taxonomic level possible; taxonomic, taphonomic, and biostratigraphic analysis; and curation to the standards of the repository where they will be curated.

5.8 Greenhouse Gas Emissions

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

5.8.1 Setting

Physical Setting and Effects of GHG Emissions. The global climate depends on the presence of naturally occurring greenhouse gases (GHG) to provide what is commonly known as the “greenhouse effect” that allows heat radiated from the Earth’s surface to warm the atmosphere. The greenhouse effect is driven mainly by water vapor, aerosols, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and other constituents. Globally, the presence of GHG affects temperatures, precipitation, sea levels, ocean currents, wind patterns, and storm activity.

Human activity directly contributes to emissions of six primary anthropogenic GHGs: CO₂, CH₄, N₂O, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). The standard definition of anthropogenic GHG includes these six substances under the 1997 Kyoto Protocol (UNFCCC, 1998). The most important and widely occurring anthropogenic GHG is CO₂, primarily from the use of fossil fuels as a source of energy.

Changing temperatures, precipitation, sea levels, ocean currents, wind patterns and storm activity provide indicators and evidence of the effects of climate change. For the period 1950 onward, relatively comprehensive data sets of observations are available. Research by California’s Office of Environmental Health Hazard Assessment (OEHHA) documented effects of climate change including impacts on terrestrial, marine, and freshwater biological systems, with resulting changes in habitat, agriculture, and food supply. Various indicators and evidence illustrate the many aspects of climate change, namely, how temperature and precipitation are changing, and how these changes are affecting the environment, specifically freshwater and marine systems, as well as humans, plants and animals (OEHHA, 2013).

GHG-Emissions Trends. California first formalized a strategy to achieve GHG reductions in 2008, when California produced approximately 483 million metric tons of CO₂ equivalent (MMTCO₂e) according to the official Air Resources Board inventory (ARB, 2017a). The economy-wide emissions have been declining in recent years, and California emitted approximately 440 MMTCO₂e in 2015 (ARB, 2017a). Globally, anthropogenic GHG emissions have increased by roughly 80%, from around 27,000 to 49,000 MMTCO₂e per year between 1970 and 2010 (IPCC, 2014). However, in this global context, California emits less than one percent of the global anthropogenic GHG.

Regulatory Background

California Global Warming Solutions Act of 2006 [Assembly Bill 32 (AB 32)]. The California Global Warming Solutions Act of 2006 (AB 32) required that California’s greenhouse gas (GHG) emissions be reduced to 1990 levels by 2020. The reduction is being accomplished through an enforceable statewide cap on global warming emissions beginning in 2012. AB 32 directs the ARB to develop regulations and a mandatory

reporting system to track and monitor global warming emissions levels (AB 32, Chapter 488, Statutes of 2006). The ARB Climate Change Scoping Plan, initially approved December 2008 and most recently updated by ARB in December 2017, provides the framework for achieving California's goals (ARB, 2017b).

In passing AB 32, the California Legislature found that:

Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problem."

Other major Executive Orders, legislation, and regulations adopted for the purpose of reducing GHG emissions support the implementation of AB 32 and California's climate goals, as described below.

California Governor's Executive Order B-30-15 and Senate Bill 32 (SB 32). Executive Order B-30-15 (April 2015) establishes a California greenhouse gas reduction target of 40 percent below 1990 levels by 2030. One purpose of this interim target is to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050. This executive order also specifically addresses the need for climate adaptation and directs state agencies to update the California Climate Adaptation Strategy to identify how climate change will affect California infrastructure and industry and what actions the state can take to reduce the risks posed by climate change. Senate Bill 32 (SB 32) of 2016 codifies this GHG emissions target to 40 percent below the 1990 level by 2030.

Clean Energy and Pollution Reduction Act of 2015 [Senate Bill 350 (SB 350)]. California's state policy objectives on long-term energy planning were updated with SB 350 legislation that was signed into law on October 7, 2015. The requirements include demonstrating through integrated resource planning how each energy service provider, such as SVP, will continue to expand the use of renewable energy supplies in the mix of electricity delivered to end-use customers. With SB 350 California expanded the specific set of objectives to be achieved by 2030, with the following:

- To increase the Renewable Portfolio Standard (RPS) from 33 percent to 50 percent for the procurement of California's electricity from renewable sources; and
- To double the energy efficiency savings in electricity and natural gas end uses by retail customers.

Mandatory Reporting of Greenhouse Gas Emissions (17 CCR 95100 to 95158). The ARB Regulation for the Mandatory Reporting of Greenhouse Gas Emissions, or mandatory reporting rule (MRR), applies to electric power distribution companies and to fossil fuel electricity generating facilities with a nameplate capacity equal or greater than 1 MW capacity. As an Electric Power Entity under this rule, SVP must report GHG emissions associated with providing electricity to end-use customers.

Cap-and-Trade Program (17 CCR 95801 to 96022). The California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation (Cap-and-Trade Program) was initially approved by ARB in 2011. The Cap-and-Trade Program applies to covered entities that fall within certain source categories, including first deliverers of electricity (such as fossil fuel power plants) and electrical distribution utilities, such as SVP. The covered entities must hold compliance instruments sufficient to cover the actual GHG emissions, as evidenced through the MRR requirements. This means that SVP, as an electrical distribution utility, bears the GHG compliance obligation for electricity delivered to end-users that are not otherwise covered entities in the Cap-and-Trade Program.

Emission Reductions of SF₆ from Gas Insulated Switchgear (17 CCR 95350 to 95359). In 2010, ARB adopted a regulation for reducing or phasing-out SF₆ emissions from electric power system gas insulated switchgear. The regulation requires owners of such switchgear to: (1) annually report their SF₆ emissions; (2) determine the emission rate relative to the SF₆ capacity of the switchgear; (3) provide a complete inventory of all gas insulated switchgear and their SF₆ capacities; (4) produce a SF₆ gas container inventory; and (5) keep all information current for ARB enforcement staff inspection and verification.

5.8.2 Environmental Impacts and Mitigation Measures

a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

LESS THAN SIGNIFICANT. The proposed activities include mobilizing construction equipment, crews, and materials, excavating holes for poles, installing concrete pier foundations, installing poles and wire stringing. These activities during construction would cause GHG emissions due to fuels used by the construction vehicles and equipment. Diesel and gasoline-powered construction equipment would include trucks for linework, lifts, delivery, concrete, water and work crews, backhoes, loaders, drill rigs, cranes, and small welders, pumps and generators. Equipment and motor vehicles would directly emit CO₂, CH₄, and N₂O due to fuel use and combustion, and motor vehicle fuel combustion emissions in terms of CO₂e are approximately 95 percent CO₂, and CH₄ and N₂O emissions occur at rates of less than 1 percent of the mass of combustion CO₂ emissions.

The resulting one-time quantity of GHG emitted during construction would be around 435 MTCO₂e (see Appendix F), based on use of the California Emissions Estimator Model (CalEEMod; v.2016.3.2). These emissions would cease at the conclusion of the 6-month construction duration. These one-time project-level emissions would be well below the threshold level of 10,000 MTCO₂e for annually recurring emissions from stationary sources (BAAQMD, 2017).

Upon completion of construction, operation of the project would not result in a notable incremental increase in GHG emissions from O&M activities. Substations involving new or modified circuit breakers would use gas insulated switchgear that would be a source of GHG due to the leakage of SF₆. The quantity of potential SF₆ emissions and the total rate in terms of CO₂e would be minor, and the circuit breakers would be required to comply with the ARB-adopted standards for SF₆ use in gas insulated circuit breakers. The resultant level of GHG would not have a significant impact on the environment, and the impact associated with the GHG emissions would be less than significant.

b. Would the project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

LESS THAN SIGNIFICANT. California's regulatory setting for GHG emissions (Section 5.8.1) ensures that most of the existing and foreseeable GHG sources in electric power sector are subject to one or more programs aimed at reducing GHG. The Climate Change Scoping Plan (ARB, 2017b) provides an outline of actions to reduce California's GHG emissions. The scoping plan requires ARB and other state agencies to adopt regulations and other initiatives to reduce GHGs.

The proposed project would generate the limited quantities of direct GHG emissions from the construction and O&M activities. The mix of power serving the end-use customers would not change as a result of the proposed project. The proposed project would improve the infrastructure used in distribution of SVP's energy supply, and would not affect SVP's ability to supply renewable energy. By improving the local transmission and distribution system, the project would be likely to improve energy efficiency in the

transmission and distribution of electricity. Electrical losses associated with the high voltage transmission system are generally less than losses within the lower-voltage distribution system mainly because the total length of transmission lines is far less than that for distribution in most power systems, and that currents and thus losses are lower at high voltages (IPCC, 2014).

California's Cap-and-Trade regulation is the major climate program covering project related GHG emissions. Construction and O&M activities would cause GHG emissions due to fuels used by the vehicles and equipment. The end-users of motor vehicle fuels like gasoline and diesel may include construction contractors that are not otherwise designated as covered entities in the Cap-and-Trade program, and these do not directly bear the Cap-and-Trade compliance obligation. However, all fuel suppliers, including refiners and pipeline companies, must cover the end-user's GHG emissions. Because the project-related GHG emissions, including construction-phase emissions and the operational-phase mobile source emissions, would be "covered" by the fuel suppliers subject to Cap-and-Trade requirements, these emissions would not conflict California's progress towards achieving GHG reductions.

As in the existing conditions, SVP would comply with ARB SF₆ regulations to inventory, report, and minimize SF₆ leaks through the use of new technology. By complying with these requirements, the proposed project would not conflict with any applicable GHG management plan, policy, or regulation. Therefore, this impact would be less than significant.

5.9 Hazards and Hazardous Materials

HAZARDS AND HAZARDOUS MATERIALS

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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

5.9.1 Setting

This section addresses issues related to environmental hazards and hazardous materials in the existing conditions. Environmental hazards include accidental spills of hazardous materials, the presence of existing subsurface contamination, the risk of wildfire, and aircraft safety. Hazardous materials include fuel, oil, and lubricants. If encountered, contaminated soil can pose a health and safety threat to workers or the public.

Existing and Past Land Uses

Existing and past land use activities are commonly used as indicators of sites or areas with potential for hazardous material storage and use or potential environmental contamination. For example, many industrial sites, historic and current, have soil or groundwater contamination by hazardous substances. Other hazardous materials sources include leaking underground tanks in commercial and rural areas, contaminated surface runoff from polluted sites, and contaminated groundwater plumes.

The proposed project area is located in an urban and highly developed area in the northeast of the City of Santa Clara. Land uses in this area are primarily light and heavy industrial and the area is dominated by commercial and industrial buildings.

Hazardous Materials

Construction activities routinely involve use and storage of hazardous materials such as cleaning solvents, paints, adhesives, vehicle fuels, oil, hydraulic fluid, and other vehicle and equipment maintenance fluids. The use and storage of such materials must comply with federal and state regulations. Hazardous material use during construction of the new 60 kV transmission line would be limited to motor vehicles fluids associated with construction vehicles. No acutely hazardous materials would be associated with construction, maintenance, or operation of the project.

Environmental Contamination

The proposed project area is located within the vicinity of commercial or industrial sites with known past contamination and sites that store and use large quantities of hazardous materials where unknown contamination may be present. A review of the State Water Resources Control Board (SWRCB) GeoTracker (SWRCB, 2017) and California Department of Toxic Substance Control (DTSC) EnviroStor databases (DTSC, 2017b) revealed that there are currently no sites that have known or potential contamination to soils or groundwater within 1 mile of the proposed project site. The proposed project is not located in any sites identified on a list of hazardous materials waste and substances sites pursuant to Government Code Section 65962.5, including the Cortese List (DTSC, 2017a).

Schools

There are no schools or learning centers located within a 0.25-mile radius of the proposed project route.

Airports and Airstrips

The Norman Y. Mineta San Jose International Airport (Airport) is located to the east of, and adjacent to, the City of Santa Clara. The Airport is directly adjacent to the eastern section of the proposed project route. A private heliport, McCandless heliport, is located about 1 mile northwest of the proposed project area.

Electromagnetic Fields

Electric voltage and electric current from transmission lines create electromagnetic fields (EMF). Possible health effects associated with exposure to EMF have been the subject of scientific investigation since the 1970s, and there continues to be public concern about the health effects of EMF exposure. However, EMF is not addressed here as an environmental impact under CEQA. SVP has repeatedly recognized that EMF is not an environmental impact to be analyzed in the context of CEQA because (1) there is no agreement among scientists that EMF does create a potential health risk, and (2) there are no defined or adopted CEQA standards for defining health risks from EMF.

Regulatory Background

Hazardous substances are defined by federal and State regulations that aim to protect public health and the environment. Hazardous materials have certain chemical, physical, or infectious properties that cause them to be considered hazardous. Hazardous substances are defined in the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 101(14), and also in the California Code of Regulations (CCR), Title 22, Chapter 11, Article 2, Section 66261, which provides the following definition:

A hazardous material is a substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed.

For this analysis, soil that is excavated from a site containing hazardous materials would be considered to be a hazardous waste if it exceeded specific CCR Title 22 criteria or criteria defined in CERCLA or other relevant federal regulations. Remediation (cleanup and safe removal/disposal) of hazardous wastes found at a site is required if excavation of these materials occurs; it may also be required if certain other activities occur. Even if soils or groundwater at a contaminated site do not have the characteristics required to be defined as hazardous wastes, remediation of the site may be required by regulatory agencies subject to jurisdictional authority. Cleanup requirements are determined on a case-by-case basis by the agency taking lead jurisdiction.

Federal

Toxic Substances Control Act. The federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA) established a program administered by the U.S. Environmental Protection Agency (EPA) for the regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act (HSWA), which affirmed and extended the “cradle to grave” system of regulating hazardous wastes. The use of certain techniques for the disposal of some hazardous wastes was specifically prohibited by HSWA.

CERCLA, including the Superfund program, was enacted by Congress on December 11, 1980. This law provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA established requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for cleanup when no responsible party could be identified. CERCLA also enabled the revision of the National Contingency Plan (NCP). The NCP provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, and/or contaminants. The NCP also established the National Priorities List (NPL). CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986.

State

California Environmental Protection Agency. The California Environmental Protection Agency (Cal/EPA) was created in 1991, which unified California’s environmental authority in a single cabinet-level agency and brought the Air Resources Board (ARB), State Water Resources Control Board (SWRCB), Regional Water Quality Control Boards (RWQCBs), Integrated Waste Management Board (IWMB), DTSC, Office of Environmental Health Hazard Assessment (OEHHA), and Department of Pesticide Regulation (DPR) under one agency. These agencies were placed within the Cal/EPA “umbrella” for the protection of human health and the environment and to ensure the coordinated deployment of State resources. Their mission is to restore, protect and enhance the environment, to ensure public health, environmental quality, and economic vitality.

California Hazardous Waste Control Law. The California Hazardous Waste Control Law (HWCL) is administered by Cal/EPA to regulate hazardous wastes. While the HWCL is generally more stringent than RCRA, until the EPA approves the California program, both the State and federal laws apply in California. The HWCL

lists 791 chemicals and about 300 common materials that may be hazardous; establishes criteria for identifying, packaging and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal and transportation; and identifies some wastes that cannot be disposed of in landfills.

California Department of Toxic Substance Control. Department of Toxic Substance Control (DTSC) is a department of Cal/EPA and is the primary agency in California that regulates hazardous waste, cleans-up existing contamination, and looks for ways to reduce the hazardous waste produced in California. DTSC regulates hazardous waste in California primarily under the authority of RCRA and the California Health and Safety Code. Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

California Department of Industrial Relations, Division of Occupational Safety and Health Administration. The California Occupational Safety and Health Administration (Cal/OSHA) is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. Cal/OSHA standards are generally more stringent than federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR Sections 337-340). The regulations specify requirements for employee training, availability of safety equipment, accident-prevention programs, and hazardous substance exposure warnings.

California Fire Plan. The Strategic California Fire Plan was finalized in June 2010 and directs each California Department of Forestry and Fire Protection (CAL FIRE) Unit to prepare a locally specific Fire Management Plan. In compliance with the California Fire Plan, individual CAL FIRE units are required to develop Fire Management Plans for their areas of responsibility. These documents assess the fire situation within each of CAL FIRE's 21 units and six contract counties. The plans include stakeholder contributions and priorities and identify strategic areas for pre-fire planning and fuel treatment, as defined by the people who live and work with the local fire problem. The plans are required to be updated annually.

Local

City of Santa Clara General Plan. The purpose of the City's safety policies is to identify potential hazards and measures that can lessen risks for the City's population and property. The following policies in the General Plan generally relate to the proposed project (City of Santa Clara, 2014):

- **Policy 5.10.5-P22.** Regulate development on sites with known or suspected contamination of soil and/or groundwater to ensure that construction workers, the public, future occupants and the environment are adequately protected.
- **Policy 5.10.5-P23.** Require appropriate clean-up and remediation of contaminated sites.
- **Policy 5.10.5-P24.** Protect City residents from the risks inherent in the transport, distribution, use and storage of hazardous materials.
- **Policy 5.10.5-P27.** Locate hazardous waste management facilities in areas designated as Heavy Industrial on the Land Use Diagram if compatible with surrounding uses and consistent with the County Hazardous Waste Management Plan.
- **Policy 5.10.5-P29.** Continue to refer proposed projects located within the Airport Influence Area to the Airport Land Use Commission.

5.9.2 Environmental Impacts and Mitigation Measures

a. 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 WITH MITIGATION INCORPORATED – CONSTRUCTION. The use of hazardous materials during project construction would be minimal. Hazardous materials may include gasoline, diesel fuel, hydraulic oils, equipment coolants, and any generated wastes that may include these materials. These materials are considered hazardous because they are flammable and/or contain toxic compounds, such as volatile organic compounds and heavy metals. Wastes considered hazardous by the State of California would be transported and disposed of according to applicable federal, State, and local regulations, as described above under Applicable Regulations. Fueling and routine maintenance of equipment and vehicles would be performed off site to the greatest extent feasible. However, minor spills or releases of hazardous materials could occur due to improper handling and/or storage practices during construction activities.

Therefore, implementation of MM HM-1 (Hazardous Substance Control and Emergency Response) would reduce potential impacts associated with hazardous material transport, use, and disposal during construction, which would ensure that project construction would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Further, SVP would also implement its existing hazardous substance control and emergency response procedures,

In addition, wooden poles would be removed from the project area during construction and disposed of in accordance with federal, State and local regulations. The wooden poles have been treated with a wood preservative that contains hazardous compounds such as polycyclic aromatic hydrocarbons. During disposal, these treated wood poles would be classified as Utility Wood Waste (UWW), which is a category of Treated Wood Waste (TWW). Once removed from the ground, the wooden poles would be immediately transported offsite, and would be collected in project-specific containers at a staging yard. As containers are filled, poles would be transported to an appropriately licensed Class I (hazardous waste) or Class II (designated waste) landfill or the composite-lined portion of a solid waste landfill approved by the appropriate Regional Water Quality Control Board (RWQCB). The transport and disposal of the poles would not pose a significant hazard to the environment or the public.

Mitigation Measure for Transport, Use, or Disposal of Hazardous Materials

MM HM-1 Hazardous Substance Control and Emergency Response. SVP shall implement its hazardous substance control and emergency response procedures as needed. The procedures identify methods and techniques to minimize the exposure of the public and site workers to potentially hazardous materials during all phases of project construction through operation. They address worker training appropriate to the site worker's role in hazardous substance control and emergency response. The procedures also require implementing appropriate control methods and approved containment and spill-control practices for construction and materials stored on site. If it is necessary to store chemicals on site, they shall be managed in accordance with all applicable regulations. Material safety data sheets shall be maintained and kept available on site, as applicable.

Project construction will involve soil surface blading/leveling, excavation of up to several feet, and augering to a maximum depth of 30 feet in some areas. No known soil contamination was identified within the project area. 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. 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.

All hazardous materials and hazardous wastes shall be handled, stored, and disposed of in accordance with all applicable regulations, by personnel qualified to handle hazardous materials. The hazardous substance control and emergency response procedures include, but are not limited to, the following:

- Proper disposal of potentially contaminated soils.
- Establishing site-specific buffers for construction vehicles and equipment located near sensitive resources.
- Emergency response and reporting procedures to address hazardous material spills.
- Stopping work at that location and contacting the City Fire Department Hazardous Materials Division immediately if visual contamination or chemical odors are detected. Work will be resumed at this location after any necessary consultation and approval by the Hazardous Materials Division.

SVP shall complete its Emergency Action Plan Form as part of project tailboard meetings. The purpose of the form is to gather emergency contact numbers, first aid location, work site location, and tailboard information.

LESS THAN SIGNIFICANT IMPACT – OPERATIONS AND MAINTENANCE. Other than substances associated with motor vehicles that would be used for annual line inspection, no hazardous materials are associated with maintenance and operation of the project. SVP would implement existing operation and maintenance policies to address hazardous materials use after the project construction is complete. Impacts associated with the transport, use, and disposal of hazardous materials would be less than significant.

b. 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 WITH MITIGATION INCORPORATED – CONSTRUCTION. Accidental spills of motor vehicles fluids associated with construction vehicles could occur during construction of the proposed project as discussed in Item (a). The minimal amounts of hazardous materials anticipated for use in the project coupled with implementation of MM HM-1 requirements would reduce potential impacts by requiring the development and implementation of hazardous substance control and health and safety measures.

Mitigation Measure for Accidental Release of Hazardous Materials

MM HM-1 Hazardous Substance Control and Emergency Response. [see full text under Item (a) above]

LESS THAN SIGNIFICANT IMPACT – OPERATIONS AND MAINTENANCE. SVP's operation and maintenance policies currently applied to the connected transmission lines that address the potential release of hazardous materials in upset or accident conditions would be implemented after the project is complete. These policies and plans ensure a thorough recordkeeping of hazardous materials and provide site-specific recommendations for spill prevention and emergency response procedures and would ensure impacts are less than significant.

c. 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?

NO IMPACT. The proposed project route is not located within 0.25 miles of an existing or proposed school; therefore, there would be no impacts to area schools as a result of hazardous emissions or acutely hazardous materials, substances or waste from the proposed project.

d. Would the project be located on a site that 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?

NO IMPACT. The proposed project route is not located on or near any known hazardous materials sites as identified on government agency listings; therefore, no significant hazard to the public or the environment would be created.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

NO IMPACT. The proposed project site is located adjacent and southeast of the Norman Y. Mineta San Jose International Airport (Airport). The City of San Jose Airport Department submitted a scoping comment (dated November 16, 2017) expressing concern about the proximity of the project to the Airport and its compliance with federal airspace safety regulations governing height of structures.

Federal Aviation Regulations, Part 77, "Objects Affecting Navigable Airspace," commonly referred to as "FAR Part 77," sets forth standards and review requirements for protecting the airspace for safe aircraft operation, particularly by restricting the height of proposed structures and minimizing other potential hazards to aircraft such as reflective surfaces, flashing lights, and electronic interference. These regulations require that the Federal Aviation Administration (FAA) be notified of certain proposed construction projects located within an extended zone defined by an imaginary slope radiating outward for several miles from an airport's runways, or which would otherwise stand at least 200 feet tall above ground.

As part of the construction of the new 60 kV transmission line, tubular steel poles, with a diameter of between 3 feet to 6 feet, and wooden and light duty steel poles, with a diameter of about 2 feet, would be installed or would replace existing secondary transmission lines. The conductors and cables are existing wires that would be transferred to the new poles at roughly the same height as their current position on the current poles. The heights of the newly installed poles are expected to be approximately 55 feet to 75 feet, with an average height of 65 feet, above ground-line. The distance between poles vary but would be close to 250 feet.

Since the new transmission line poles would be of approximately the same height as the current poles to be replaced and since the new poles would be less than 200 feet tall above ground, there would be no impact to operations at the Airport as the aviation conditions after the completion of the proposed project would be essentially the same as it is currently. In addition, there would not be any impact that would result in a safety hazard for people residing or working in the project area.

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED – CONSTRUCTION. Construction-related temporary travel lane closures or disruptions would be necessary during the 6-month construction period of the proposed project.

In June 2016, the Santa Clara City Council adopted a new comprehensive emergency response plan to replace the prior plan adopted in 2008. The plan provides a legal framework for the management of emergencies and guidance for the conduct of business in the City's Emergency Operations Center (EOC), including collaboration and coordination between different responsible agencies. The Emergency Operations Plan (EOP) establishes responsibilities and procedures for addressing potential emergencies related to natural disasters such as earthquakes, flooding, and dam failure; technological incidents; hazardous materials spills or releases; and incidents of domestic terrorism involving weapons of mass destruction, such as Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) devices. The EOP conforms to the requirements of the National Incident Management System (NIMS) mandated by the U.S. Department of Homeland Security. The Santa Clara EOP also builds on and coordinates with the State's Standardized Emergency Management System (SEMS) and the California State Emergency Plan.

The EOP does not identify specific emergency shelters or evacuation routes in Santa Clara, though schools are identified as preferred facilities for lodging large numbers of people, with churches, hotels, and motels also likely to function as mass care facilities during large-scale disasters. The proposed project would not interfere with operation of any emergency shelters and would not permanently close off or otherwise alter any existing streets, and therefore would not create any obstructions to potential evacuation routes that might be used in the event of an emergency.

During construction temporary lane closures would be coordinated with local agencies and as specified in Transportation and Traffic MM T-1 (Construction Traffic Control Plan) (see Section 5.16, Traffic and Transportation). Additionally, any temporary road closures would follow applicable regulations and would not impede emergency response. Adherence to the City's EOP, coupled with implementation of MM T-1 during construction would ensure that the project would not impair the implementation of or physically interfere with an adopted emergency response or evacuation plan; therefore, the impact that would occur related to emergency response during construction would be less than significant.

Mitigation Measure for Interference with an Adopted Emergency Response Plan or Emergency Evacuation Plan

MM T-1 Construction Traffic Control Plan [See Section 5.16.2 (Traffic and Transportation) for complete text of the mitigation measure.]

NO IMPACT – OPERATION AND MAINTENANCE. Operation and maintenance of the proposed project would not increase demands on existing emergency response services and would therefore have no impact on adopted emergency response plans or emergency evacuation plans.

g. 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. While high heat or sparks from vehicles or equipment used during proposed project construction have the potential to cause fires, the proposed project is in an urban environment with no risk of wildland fire owing to the lack of extensive vegetation in the proposed project area or along the public roadways. The City of Santa Clara area is not located in a Fire Hazard Severity Zone (FHSZ) in the CAL FIRE wildland fire hazard maps (CAL FIRE, 2007).

Operation and maintenance activities would be incorporated into SVP's existing O&M schedule for the existing transmission lines, substations, and associated facilities. As with current operations and maintenance, SVP would comply with all current federal and State laws related to vegetation clearance and fire prevention. Therefore, the project would have no direct or indirect impacts related to exposure of people to wildland fires (see also Section 5.20, Wildfire). No mitigation would be required.

5.10 Hydrology and Water Quality

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 waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

5.10.1 Setting

Surface Waters and Drainage

Surface water drainage in the City of Santa Clara is primarily into the Guadalupe River (southeast of the proposed project area), San Tomas Aquino Creek (northwest of the proposed project area), Saratoga Creek (southwest of the proposed project area), and Calabazas Creek (southwest of the proposed project area) (City of Santa Clara, 2014). At about 1.75 miles to the southeast, Guadalupe River is the closest drainage to the proposed project area. The project site drains to both the Guadalupe River in the greater Guadalupe River Watershed and San Tomas Aquino Creek in the greater West Valley Watershed.

All of the streams originate in the Santa Cruz Mountains, which are largely undeveloped. These streams drain northward across Santa Clara Valley to discharge into San Francisco Bay. Within the City of Santa Clara, these regionally important streams have been substantially channelized and modified to reduce flood hazards. The City of Santa Clara has a storm drainage system that consists of curb inlets that collect and channel surface water, such as rainwater, into a series of pipelines beneath City's roadways. The

stormwater is transported through the underground pipelines to the 4 streams within the City. These streams then directly flow into the San Francisco Bay (City of Santa Clara, 2014).

Groundwater Resources

The Santa Clara Valley lies on an aquifer system with two subbasins: the Santa Clara Subbasin in the north and the Llagas Subbasin in the south (Santa Clara Valley Water District, 2017). Water production wells in the Santa Clara Valley average about 278 feet in depth below ground surface and yield an average of 425 gallons per minute (City of Santa Clara, 2014). The proposed project area in the northeast of the City of Santa Clara is within the Santa Clara Subbasin.

In contrast to other areas adjacent to San Francisco Bay, where saltwater intrusion has been an issue, total dissolved solids in the groundwater have not been a concern for the City of Santa Clara. Nitrates have also not been a problem and are below one-half of allowable levels in water extracted from the City's wells. However, manganese, a naturally occurring metal in groundwater, has been detected at a well, resulting in the City installing a manganese removal system for that well before putting it into production (City of Santa Clara, 2014).

Flood Hazard Areas

The Federal Emergency Management Agency (FEMA) designates the boundaries of Flood Hazard Areas, or those areas anticipated to be inundated in the event of a 100-year storm event. Approximately 10 percent of the City of Santa Clara is located within a Special Flood Hazard Area (SFHA), which are areas at high risk of flooding, as indicated by flood zone mapping prepared by FEMA (City of Santa Clara, 2014). In the proposed project area, approximately 3,300 feet of the New East Loop Overhead Transmission Line and 375 feet of the New South Loop Overhead Transmission Line are over FEMA Special Flood Hazard Areas "AO" and "AH," which are both high risk areas in the 100-year floodplain. "AH" designated areas are defined as areas subject to a 1 percent annual chance flood with flood depths of 1 to 3 feet, usually in the form of ponding. "AO" designated areas are defined as areas subject to 1 percent annual chance flood with flood depths of 1 to 3 feet, usually in the form of sheet flow on sloping terrain (CA DWR, 2017).

Portions of the proposed project that are located outside of Zones "AO" and "AH" are located in Shaded Zone X. Shaded Zone X represents areas of 0.2 percent annual chance flood, areas of 1 percent annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from 1 percent annual chance flood.

Water Supply

Potable water for the City of Santa Clara comes from a combination of sources: City of San Francisco's Hetch Hetchy aqueduct system, Santa Clara Valley Water District, and groundwater from City-owned wells. Groundwater comprises almost 70 percent of the City's water supply. Recycled wastewater is also used in the City for certain landscape irrigation, industrial, and construction purposes (City of Santa Clara, 2014).

Regulatory Background

Federal

Clean Water Act. The Clean Water Act (CWA; 33 U.S.C. Section 1251 et seq.), formerly the Federal Water Pollution Control Act of 1972, was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. The CWA requires states to set

standards to protect, maintain, and restore water quality through the regulation of point source and certain non-point source discharges to surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). NPDES permitting authority is delegated to, and administered by, California's nine Regional Water Quality Control Boards (RWQCB). In addition, the State Water Resources Control Board (SWRCB) regulates the NPDES stormwater program. The proposed project is under the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (Region 2) and the SWRCB.

Projects that disturb one or more acres are required to obtain NPDES coverage under the California General Permit for Discharges of Storm Water Associated with Construction Activity. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP describes Best Management Practices (BMPs) the discharger will use to protect stormwater runoff. The SWPPP must contain a visual monitoring program and a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs.

Section 401 of the CWA requires that any activity, including river or stream crossing during road, pipeline, or transmission line construction, which may result in discharges into a State waterbody, must be certified by the RWQCB through the issuance of a Waste Discharge Requirement. This certification ensures that the proposed activity does not violate State or federal water quality standards. The limits of nontidal waters extend to the Ordinary High Water Mark (OHWM), defined as the line on the shore established by the fluctuation of water and indicated by physical characteristics, such as natural line impressed on the bank, changes in the character of the soil, and presence of debris.

Section 404 of the CWA requires a permit for construction activities involving placement of any kind of fill material into waters of the U.S. or wetlands. The U.S. Army Corps of Engineers (USACE) may issue either individual, site-specific permits or general, nationwide permits for discharge into U.S. waters. A Water Quality Certification pursuant to Section 401 of the CWA is required for Section 404 permit actions. If applicable, construction would also require a request for Water Quality Certification (or waiver thereof) from the Central Valley RWQCB and/or the Lahontan RWQCB.

Section 303(d) of the CWA (CWA, 33 USC 1250, et seq., at 1313(d)) requires states to identify impaired waterbodies as those which do not meet water quality standards. States are required to compile this information in a list and submit the list to the USEPA for review and approval. This list is known as the Section 303(d) list of impaired waters. As part of this listing process, states are required to prioritize waters and watersheds for future development of Total Maximum Daily Load (TMDL) requirements. A TMDL is the maximum amount of a pollutant that a particular waterbody can receive while still meeting water quality standards, or an allocation of that water pollutant deemed acceptable to receiving waters. The SWRCB and RWQCBs have ongoing efforts to monitor and assess water quality, to prepare the Section 303(d) list, and to develop TMDL requirements.

National Flood Insurance Act/Flood Disaster Protection Act. The National Flood Insurance Act of 1968 made flood insurance available for flood prone areas. The Flood Disaster Protection Act of 1973 made the purchase of flood insurance mandatory for the protection of property located in Special Flood Hazard Areas. These laws led to mapping of regulatory floodplains and to local management of floodplain areas following federal guidelines which include prohibiting or restricting development in flood hazard zones.

State

Porter-Cologne Water Quality Control Act. The Porter Cologne Water Quality Control Act of 1967, Water Code Section 13000 et seq., requires the SWRCB and the nine RWQCBs to adopt water quality criteria to

protect State waters. These criteria include the identification of beneficial uses, narrative and numerical water quality standards, and implementation procedures. The criteria for the project area are contained in the Water Quality Control Plan (also referred to as a Basin Plan) for the San Francisco RWQCB. Constraints in the water quality control plans relative to the proposed project relate primarily to the avoidance of altering the sediment discharge rate of surface waters, and the avoidance of introducing toxic pollutants to the water resource. A primary focus of water quality control plans is to protect designated beneficial uses of waters. In addition, anyone proposing to discharge waste that could affect the quality of the waters of the state must make a report of the waste discharge to the Regional Water Board or State Water Board as appropriate, in compliance with Porter-Cologne.

California Water Code Section 13260. California Water Code Section 13260 requires that any person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the State, other than into a community sewer system, must submit a report of waste discharge to the applicable RWQCB. Any actions related to the proposed Project that would be applicable to Section 13260 would be reported to the San Francisco RWQCB, as applicable.

Local

Water Policies. The purpose of the City's water policies is off-set increased demand associated with the implementation of the City General Plan. The following policies in the General Plan generally relate to the proposed project (City of Santa Clara, 2014):

- **Policy 5.10.4-P1.** Promote water conservation through development standards, building requirements, landscape design guidelines, education, compliance with the State Water Conservation Landscaping Ordinance, incentives, and other applicable City-wide policies and programs.
- **Policy 5.10.4-P4.** Require an adequate water supply and water quality for all new development.
- **Policy 5.10.4-P5.** Prohibit new development that would reduce water quality below acceptable State and local standards.
- **Policy 5.10.4-P10.** Work with Santa Clara Valley Water District to minimize undesirable compaction of aquifers and subsidence of soils.

Safety Policies. The purpose of the City's safety policies is to identify potential hazards and measures that can lessen risks for the City's population and property. The following policies in the General Plan generally relate to the proposed project (City of Santa Clara, 2014):

- **Policy 5.10.5-P11.** Require that new development meet stormwater and water management requirements in conformance with State and regional regulations.
- **Policy 5.10.5-P13.** Require that development complies with the Flood Damage Protection Code.
- **Policy 5.10.5-P14.** Coordinate with the Federal Emergency Management Agency to ensure appropriate designation and mapping of floodplains.
- **Policy 5.10.5-P16.** Require new development to implement erosion and sedimentation control measures to maintain an operational drainage system, preserve drainage capacity and protect water quality.
- **Policy 5.10.5-P21.** Require that storm drain infrastructure is adequate to serve all new development and is in place prior to occupancy.
- **Policy 5.10.5-P22.** Regulate development on sites with known or suspected contamination of soil and/or groundwater to ensure that construction workers, the public, future occupants and the environment are adequately protected.

5.10.2 Environmental Impacts and Mitigation Measures

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. Disturbance of soil during construction through pole construction and tree removal could result in soil erosion and lowered water quality through increased turbidity and sediment transport into the storm drain system. Although there are no watercourses or other water bodies within the proposed project and staging areas, drainage is directly to the municipal storm drain system, which leads to 4 streams that then directly flow into the San Francisco Bay.

During construction of the proposed project, there is also the potential for violations of water quality standards or waste discharge requirements to occur as a result of accidental leaks, spills, or releases of hazardous or potentially hazardous materials, such as during construction of the drilled concrete pier foundations for the tubular steel poles when water is mixed with a stabilizing agent, such as a polymer-blend or bentonite, to create a foundation slurry. There is also a potential for violations if existing contamination in the project area is encountered during construction.

Implementation of Mitigation Measure (MM) HYD-1 would ensure that erosion control best management practices (BMPs) would be in place to reduce potential water quality impacts to a less than significant level whether or not a SWPPP is triggered by State law by more than one acre of soil disturbance. In addition to MM HYD-1, complying with applicable water quality standards, including obtaining and adhering to any required water quality permits, would offer sufficient protection to avoid significant adverse impacts to water quality from erosion and sedimentation. Applicable water quality standards and regulations are described above, in Section 5.10.1.

In the event of an accidental spill, adherence to regulatory standards and regulations, as well as implementation of MM HM-1 (Hazardous Substance Control and Emergency Response) (see Section 5.9), would collectively ensure that a suite of BMPs would be applied to minimize the potential for an accidental release of hazardous materials to occur, to quickly and effectively address any such leak, and to quickly and effectively respond to any existing contamination produced or encountered during construction. The intent of regulatory standards is to prevent degradation of water quality to the point where beneficial uses would be impaired. Therefore, potential impacts to water quality standards or waste discharge requirements or other substantial degradation of surface or groundwater quality during construction would be less than significant with implementation of MM HYD-1 and MM HM-1 and compliance with regulatory standards. With these compliances, no violations would result from operation of the proposed project.

Mitigation Measure for Water Quality

MM HYD-1 SWPPP or Erosion Control Plan Development and Implementation. Following project approval, SVP will prepare and implement a SWPPP, if required by State law, or erosion control plan to minimize construction impacts on surface water and groundwater quality. Implementation of the SWPPP or erosion control plan will help stabilize graded areas and reduce erosion and sedimentation. The plan will designate BMPs that will be adhered to during construction activities. Erosion and sediment control measures, such as straw wattles, covers, and silt fences, will be installed before the onset of winter rains or any anticipated storm events. Suitable stabilization measures will be used to protect exposed areas during construction activities, as necessary. During construction activities, measures will be in place to prevent contaminant discharge.

The project SWPPP or erosion control plan will include erosion control and sediment transport BMPs to be used during construction. BMPs, where applicable, will be designed by using specific criteria from recognized BMP design guidance manuals. Erosion-minimizing efforts may include measures such as properly containing stockpiled soils.

Erosion control measures identified will be installed in an area before construction begins during the wet season and before the onset of winter rains or any anticipated storm events. Temporary measures such as silt fences or wattles, intended to minimize sediment transport from temporarily disturbed areas, will remain in place until disturbed areas have stabilized. The plan will be updated during construction as required by the SWRCB.

A worker education program shall be established for all field personnel prior to initiating fieldwork to provide training in the appropriate application and construction of erosion and sediment control measures contained in the SWPPP. This education program will also discuss appropriate hazardous materials management and spill response. Compliance with these requirements will be ensured by the on-site construction contractor.

MM HM-1 Hazardous Substance Control and Emergency Response (see full text in Section 5.8, Hazards and Hazardous Materials)

b. 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. Groundwater supplies could be adversely affected through direct consumption of groundwater resources or indirect depletion of groundwater supplies such as through conducting dewatering activities where the water is not returned to the subsurface. In the case of the proposed project there would be minimal demand for water. A water truck may be on-site to support dust suppression during ground disturbing work and to use for foundation slurry during construction of the drilled concrete pier foundations for the tubular steel poles. These uses would not result in a significant demand for water resources from the City of Santa Clara, where groundwater makes up 70 percent of the City's water supply. The existing supply is adequate for use during the 6-month duration of construction activities. Dewatering may be necessary if groundwater is encountered, but given the depth to the groundwater table, water encountered during project excavation would be shallow and local. The small amount of dewatering would therefore not result in a substantial decrease of the groundwater supply or interfere substantially with groundwater recharge or sustainable groundwater management. Overall, any impacts to groundwater would be less than significant.

c. 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:

(i) result in substantial erosion or siltation on- or off-site;

LESS THAN SIGNIFICANT. The proposed project will be an overhead transmission line that has no potential to alter the course of a stream or river, nor to substantially alter the existing drainage pattern of the site or area. Only minor modifications to existing substations would occur, therefore increases in impervious areas and soil compaction would be slight compared to the impervious area of the surrounding urban landscape. The proposed project would therefore have a less than significant impact on drainage patterns or runoff generation.

(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

LESS THAN SIGNIFICANT. As described under Item (c)(i) above, the proposed project would therefore have a less than significant impact on drainage patterns or runoff generation. New impervious areas would be negligible. The proposed project would require vegetation and tree trimming and/or removal for pole and conductor installation, vehicle access, and to minimize the risk of fire. Work areas where vegetation management and/or tree trimming would occur are expected to revegetate naturally due to the limited disturbance, and identified trees for removal would be replaced, as required by the City of Santa Clara. The selective removal of trees would therefore not result in the creation of bare ground surface and no alteration of runoff generation is anticipated. Impacts on flooding would therefore be less than significant.

(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

LESS THAN SIGNIFICANT. As discussed above, the project will not substantially increase the rate or amount of runoff. Existing or planned stormwater drainage systems will therefore not be adversely affected. Except as described under Item (a) above, the project has no features that would generate substantial polluted runoff. This impact is therefore less than significant.

(iv) impede or redirect flood flows?

LESS THAN SIGNIFICANT. The proposed project is located within a 100-year floodplain and within a FEMA-designated Special Flood Hazard Area. However, the construction of the tubular steel poles for the new 60 kV transmission line are very small relative to the width of the floodplain and would not pose a substantial obstruction to flood flows such that flood flows would be impeded or redirected in any substantial way; therefore, the impact would be less than significant.

d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

LESS THAN SIGNIFICANT. The proposed project is located within a 100-year floodplain and within a FEMA-designated Special Flood Hazard Area. However, the proposed overhead lines would be well above the level of the floodplain with no opportunity to release pollutants as a result of flooding. Improvements to the substations, which are not in the floodplains, would be minor. The site is not in a tsunami or seiche zone. This impact is therefore less than significant.

e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

LESS THAN SIGNIFICANT. As described in Item (a) above, the project effect on water quality will be less than significant with mitigation. There are no features of the project that would otherwise generate water quality impairments, nor are there any components of the project construction or use that could otherwise conflict with the implementation of a water quality control plan. The project will have minimal water use, mainly during construction, which will be obtained from local water purveyors. There are no features of the project that would otherwise have any effect on groundwater management. This impact is therefore less than significant.

5.11 Land Use and Planning

LAND USE 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

5.11.1 Setting

The proposed project would be located in an urban, heavily developed area in the northeast part of the City of Santa Clara and adjacent to the west side of the City of San Jose International Airport. The proposed project area and the local vicinity are dominated by commercial and industrial buildings and are zoned as Light Industrial (ML), Heavy Industrial (MH), and Public or Quasi-Public (B) (City of Santa Clara, 2014a). “ML” designations permit a range of light industrial uses, including general service, warehousing, storage, distribution, and manufacturing. “MH” designations permit primary manufacturing, refining and similar activities, warehousing and distribution, and data centers. “B” designations allow a variety of public and quasi-public uses, including government offices, fire and police facilities, transit stations, commercial adult care and child care centers, religious institutions, schools, cemeteries, hospitals and convalescent care facilities, places of assembly, and other facilities that have a unique public character as their primary use. (City of Santa Clara, 2014b)

Regulatory Background

This section includes a description of the land use and planning regulatory framework. There are no federal regulations or policies related to land use and planning are applicable to the project.

State

Natural Community and Conservation Planning Act

The Natural Community and Conservation Planning Act (California Fish and Wildlife Code Section 2800-2835) aims to reconcile wildlife and ecosystem conservation with land development and population growth. It allows for the creation of Natural Community and Conservation Plans (NCCPs) to protect state-listed species, usually in connection with the issuance of a Section 2081 take permit under the California Endangered Species Act (CESA) (SDG&E, 2016). Currently, there are 9 approved NCCPs and 14 NCCPs in the active planning phase. Cumulatively, these plans cover more than 9.5 million acres throughout California and will provide conservation for more than 500 special status plant and animal species (CDFW, 2016a).

Local

City of Santa Clara General Plan. The City’s land use policies consider the effects of development to public facilities and infrastructure. The following policy in the General Plan generally relates to the proposed project (City of Santa Clara, 2014b):

- **Policy 5.3.1- P1.** Preserve the unique character and identity of neighborhoods through community-initiated neighborhood planning and design elements incorporated in new development.
- **Policy 5.3.1- P2.** Encourage advance notification and neighborhood meetings to provide an opportunity for early community review of new development proposals.
- **Policy 5.3.1-P4.** Encourage new development that meets the minimum intensities and densities specified in the land use classifications or as defined through applicable Focus Area, Neighborhood Compatibility or Historic Preservation policies of the General Plan.
- **Policy 5.3.1-P6.** Allow planned development only if it is consistent with General Plan land use density and intensity requirements and provides a means to address unique situations to achieve high community design standards that would otherwise not be feasible.
- **Policy 5.3.1-P10.** Provide opportunities for increased landscaping and trees in the community, including requirements for new development to provide street trees and a minimum 2:1 on- or off-site replacement for trees removed as part of the proposal to help increase the urban forest and minimize the heat island effect.
- **Policy 5.3.1-P15.** Require new developments and major public infrastructure projects to include adequate rights-of-way to accommodate all modes of transportation.
- **Policy 5.3.1-P17.** Promote economic vitality by maintaining the City’s level of service for public facilities and infrastructure, including affordable utilities and high quality telecommunications.
- **Policy 5.3.1-P28.** Encourage undergrounding of new utility lines and utility equipment throughout the City.

Santa Clara Valley Habitat Plan. The Santa Clara Valley Habitat Plan is a 50-year regional plan adopted in 2013 that was created to protect endangered species and natural resources in the Santa Clara Valley while allowing for future development in Santa Clara County. There is both a habitat conservation plan (HCP) and natural community conservation plan (NCCP) (Santa Clara Valley Habitat Agency, 2017). The main goals of the planning document are to:

- Help private and public entities plan and conduct projects and activities in ways that lessen impacts on natural resources, including specific threatened and endangered species.
- Identify regional lands, called reserves, to be preserved or restored to benefit those species.
- Describe how reserves will be managed and monitored to ensure that they benefit those species.

The City is not a member agency to the HCP/NCCP, and the project site does not lie within the regulatory boundary of the HCP/NCCP.

5.11.2 Environmental Impacts and Mitigation Measures

a. Would the project physically divide an established community?

LESS THAN SIGNIFICANT. The new 60 kV transmission structures primarily would follow the edge of roadways, which include landscaped planter areas, the perimeters of parking lots, or in sidewalks, where many of the existing power lines in the project vicinity are located. Construction work areas would typically include the adjacent City road ROW in addition to the width of the SVP ROW (50 feet), and extend approximately 50 feet in length. Construction would require temporary lane closures along various public and private roads within the project area over the 6-month construction duration. However, the temporary lane closures would be coordinated with local agencies and SVP would obtain ministerial encroachment

permits to conduct work in public ROWs in accordance with applicable City requirements. Given the short construction duration and SVP's coordination with local agencies, there would be a less-than-significant impact to the local established community as a result of the construction of the proposed project. Except for poles, most of the proposed project would be overhead above the ground, and would not divide an established community. No mitigation is required.

b. 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?

NO IMPACT. The proposed project would be consistent with the policies of the City of Santa Clara General Plan, as listed above in Section 5.11.1, Setting. As discussed in Sections 5.1, Aesthetics, and 5.11, Noise, the project would have less than significant visual and noise impacts. SVP shall obtain all applicable ministerial permits prior to commencing project activities. The proposed project does not cause an environmental impact due to a conflict with any applicable land use plans, policy, or regulation.

5.12 Mineral Resources

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

5.12.1 Setting

Mineral resources of significance found and extracted in Santa Clara County include construction aggregate deposits and salts derived from evaporation ponds at the edge of San Francisco Bay (County of Santa Clara, 2010). A review of U.S. Geological Survey (USGS) data indicate that the proposed project, located in the City of Santa Clara, would not be in a classified mineral resource zone (MRZ) and there are no known important mineral resources or active mining operations in the immediate vicinity of the proposed route (DOC, 2017a; USGS, 2017).

Regulatory Background

This section includes a description of the mineral resources regulatory framework. There are no federal or local regulations associated with mineral resources that are relevant to the proposed project.

State

California Surface Mining and Reclamation Act of 1975 (SMARA)

SMARA requires that the State Geologist classify land into Mineral Resource Zones (MRZs) according to the known or inferred mineral potential of the land. The California Department of Conservation's Office of Mine Reclamation (OMR) and the State Mining and Geology Board (SMGB) are jointly charged with administration of the Act's requirements. The OMR provides technical assistance to lead agencies and operators, maintains a statewide database of mine locations and operational information, and is responsible for matters involving SMARA compliance. The SMGB promulgates regulations to clarify and interpret SMARA requirements in addition to serving as a policy and appeals board (DOC, 2017b). The SMGB has the authority to further regulate the authority of the local agencies if it finds that the agencies are not in compliance with the provisions of SMARA.

Mineral resources have been mapped using the California Mineral Land Classification System, which include the following four MRZs:

- **MRZ-1:** Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence;
- **MRZ-2:** 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, the significance of which cannot be evaluated; and
- **MRZ-4:** Areas where available information is inadequate for assignment to any other zone.

5.12.2 Environmental Impacts and Mitigation Measures

a. 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?

NO IMPACT. The proposed project and the surrounding vicinity are not located within a classified Mineral Resource Zone and there are no known important mineral resources that would be impacted by the Project. Therefore, the project would not result in the loss of availability of a known mineral resource of value to the region or State.

b. 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?

NO IMPACT. As stated above, there are no designated Mineral Resource Zones in the proposed project vicinity and there are no known important mineral resources that would be impacted by the project. Therefore, the project would have no impact on any locally important mineral resource recovery sites.

5.13 Noise

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

5.13.1 Setting

Existing Conditions

Community Noise. To describe environmental noise and to assess project impacts on areas that are sensitive to community noise, a measurement scale that simulates human perception is used. The A-weighted scale of frequency sensitivity accounts for the sensitivity of the human ear, which is less sensitive to low frequencies, and correlates well with human perceptions of the annoying aspects of noise. The A-weighted decibel scale (dBA) is cited in most noise criteria. Decibels are logarithmic units that can be used to conveniently compare wide ranges of sound intensities.

Community noise levels can be highly variable from day to day as well as between day and night. For simplicity, sound levels are usually best represented by an equivalent level over a given time period (Leq) or by an average level occurring over a 24-hour day-night period (Ldn). The Leq, or equivalent sound level, is a single value (in dBA) for any desired duration, which includes all of the time-varying sound energy in the measurement period, usually one hour. The L50, is the median noise level that is exceeded fifty per cent of the time during any measuring interval. The Ldn, or day-night average sound level, is equal to the 24-hour A-weighted equivalent sound level with a 10-decibel penalty applied to nighttime sounds occurring between 10:00 p.m. and 7:00 a.m. Community Noise Equivalent Level (CNEL) is another metric that is the average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and after addition of 10 decibels to sound levels in the night from 10:00 p.m. to 7:00 a.m. To easily estimate the day-night level caused by any noise source emitting steadily and continuously over 24-hours, the Ldn is 6.4 dBA higher than the source's Leq. For example, if the expected continuous noise level from equipment is 50.0 dBA Leq for every hour, the day-night noise level would be 56.4 dBA Ldn.

Community noise levels are usually closely related to the intensity of human activity. Noise levels are generally considered low when below 45 dBA, moderate in the 45 to 60 dBA range, and high above 60 dBA. In wilderness areas, the Ldn noise levels can be below 35 dBA. In small towns or wooded and lightly used residential areas, the Ldn is more likely to be around 50 or 60 dBA. Levels around 75 dBA are more common in busy urban areas, and levels up to 85 dBA occur near major freeways and airports. Although

people often accept the higher levels associated with very noisy urban residential and residential-commercial zones, they nevertheless are considered to be adverse to public health.

Surrounding land uses dictate what noise levels would be considered acceptable or unacceptable. Lower levels are expected in rural or suburban areas than what would be expected for commercial or industrial zones. Nighttime ambient levels in urban environments are about seven decibels lower than the corresponding daytime levels. In rural areas away from roads and other human activity, the day-to-night difference can be considerably less. Areas with full-time human occupation and residency are often considered incompatible with substantial nighttime noise because of the likelihood of disrupting sleep. Noise levels above 45 dBA at night can result in the onset of sleep interference. At 70 dBA, sleep interference effects become considerable (U.S. EPA, 1974).

Noise Environment in the Project Area. The project area includes land uses that are primarily heavy and light industrial and is adjacent to the Norman Y. Mineta San Jose International Airport. The background noise levels caused by the San Jose International Airport are above 65 dBA CNEL for the easternmost portions of the project area that are near the airport safety zone, as mapped in the City of Santa Clara General Plan (City of Santa Clara, 2014; General Plan Figure 5.10-5). The major arteries of De la Cruz Boulevard, Lafayette Street, Scott Boulevard, and Walsh Avenue through the project area cause traffic noise levels that exceed 75 dBA CNEL along the edges of the roads (City of Santa Clara, 2014; General Plan Figure 5.10-4).

Noise Sensitive Areas. Near the project area are a diverse range of general plan designations within 0.5-mile of the project, including areas with medium density residential, very low density residential, and community-serving parks/open space. The only residences in the project vicinity are west of Lafayette Street at its intersection with Memorex Drive, on the opposite side of the Lafayette Street and just over 100 feet from the proposed transmission line route. Project-related staging areas and work areas would be at least 100 feet from land uses containing sensitive receptors.

Regulatory Background

Regulating environmental noise is generally the responsibility of local governments. The U.S. EPA once published guidelines on recommended maximum noise levels to protect public health and welfare (U.S. EPA, 1974), and the State of California maintains recommendations for local jurisdictions in the General Plan Guidelines published by the Governor's Office of Planning and Research (OPR, 2017). The following summarizes the local requirements.

The City of Santa Clara City Code. The City Code generally prohibits "loud and unreasonable noise" as a nuisance if it may disturb the peace "between the hours of 10:00 P.M. and 7:00 A.M." including specifically noise that is "made within two hundred fifty (250) feet of any building or place regularly used for sleeping purposes" (Section 9.05.010).

The City's Noise Ordinance (Chapter 9.10) includes exterior noise limits that must not be exceeded at receiving land uses, for noise generated by any fixed source of noise. Construction activities that occur during allowed hours and noise from city-owned electric facilities are exempt from the noise and vibration standards of the Noise Ordinance (Section 9.10.070). For construction that is "off-street," which would include project staging areas and substations, and within 300 feet of a residentially zoned property, construction activities shall be limited to occur within the hours of 7:00 A.M. to 6:00 P.M. on weekdays that are not holidays or within the hours of 9:00 A.M. to 6:00 P.M. on Saturdays that are not holidays (Section 9.10.230).

City of Santa Clara General Plan. The Environmental Quality chapter of the General Plan (2014) includes policies to encourage land uses that are compatible with areas of higher noise levels and to protect noise sensitive land uses in areas where existing ambient noise levels are high, as follows:

- **Policy 5.10.6-P6,** Discourage noise sensitive uses, such as residences, hospitals, schools, libraries and rest homes, from areas with high noise levels, and discourage high noise generating uses from areas adjacent to sensitive uses.
- **Policy 5.10.6-P7,** Implement measures to reduce interior noise levels and restrict outdoor activities in areas subject to aircraft noise in order to make Office/Research and Development uses compatible with the Norman Y. Mineta International Airport land use restrictions.
- **Policy 5.10.6-P8,** Continue to encourage safe and compatible land uses within the Norman Y. Mineta International Airport Noise Restriction Area.

5.13.2 Environmental Impacts and Mitigation Measures

a. *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 – CONSTRUCTION. The proposed project would require a 6-month duration of construction activities that include mobilizing construction equipment, crews, and materials, excavating holes for poles, installing concrete pier foundations, installing poles and wire stringing. The construction activities would require use of vehicles and heavy-duty equipment capable of generating noise along the proposed transmission line segments, at the proposed staging and work areas, within the modified substation sites, and along the roadways used to access these locations. The types of construction equipment used at work sites would include trucks for linework, lifts, delivery, concrete, water and work crews, backhoes, loaders, drill rigs, cranes, and small welders, pumps and generators. Outside of work sites, increased traffic noise would be caused by vehicles transporting equipment and supplies to the sites, trucks removing debris, and workers commuting to and from work sites.

Construction would temporarily increase the noise levels within the project area. The surrounding land uses are primarily heavy and light industrial. The locations of the proposed transmission segments would not be adjacent to any sensitive receptors. However, the area includes a diverse range of general plan designations within 0.5 miles of the project, including areas with medium density residential, very low density residential, and community-serving parks/open space. The only residences in the project vicinity are west of Lafayette Street at its intersection with Memorex Drive, on the opposite side of the Lafayette Street and just over 100 feet from the proposed transmission line route. Project-related staging areas and work areas would be at least 100 feet from land uses containing sensitive receptors.

Construction activities along the project segments and at staging areas would create both intermittent and continuous noises. Intermittent noise would be caused by periodic, short-term equipment operation. For example, a drill rig would need to be used with a backhoe or loader to create foundations, and this would require one or two days of work at each pole site. Continuous noise would emanate from equipment operation over longer periods, such as steady generator or excavator use. The maximum intermittent noise levels from a construction work spread would typically range from 84 to 90 dBA at 50 feet. These would be the highest levels expected for foundation development or excavation activities. At 50 feet, continuous noise levels could range up to about 83 dBA. Because sound fades over distance, these levels would diminish over additional distance and could be reduced further by intervening structures. At 100 feet from a work spread, continuous noise levels could range up to 77 dBA and at 200 feet, up to 71 dBA.

Table 5.13-1 summarizes the typical noise levels for individual pieces of construction equipment.

Construction would also cause noise away from work areas, primarily from commuting workers and from trucks needed to bring materials to the sites. Haul trucks would make trips to bring poles, conductor line, and other materials to the construction sites and remove excavated soil and waste. The noise levels associated with passing trucks and commuting worker vehicles would be approximately 71 to 76 dBA at 50 feet, and would be concentrated along the major arterial streets and smaller streets and access roads leading to individual work areas.

Construction noise would affect the locations closest to the work and staging areas and along site access routes used by haul trucks and other construction traffic. The surrounding land uses would experience a temporary increase in noise above the conditions that exist without the project. Construction noise would occur in a setting of industrial land uses and moderate ambient noise levels without the project. However, the intermittent and variable nature of construction noise limits the potential for adverse effects such as annoyance to be experienced by off-site receptors, and sleep interference would not be a concern because few residences occur in the project area and most activities would occur during daylight hours. Incremental noise from construction vehicles and traffic noise would not represent a substantial increase in the context of the project surroundings of industrial land uses and the existing noise levels.

SVP would take routine precautions to avoid creating unnecessary noise, especially near residential or other sensitive land uses. Construction traffic would be routed away from residential areas, when possible. The construction noise levels would be compatible with the setting of existing land uses and ambient noise levels and would pose no conflict with City of Santa Clara policies regarding compatibility of land uses with noise levels. Project construction noise during daytime hours would be exempt from the standards established in City Noise Ordinance. The construction noise impact under this criterion would be less than significant.

LESS THAN SIGNIFICANT – OPERATIONS AND MAINTENANCE. City-owned electric facilities are exempt from the noise and vibration standards of the Noise Ordinance (Chapter 9.10.070). Upon completing construction, the occasional nature of maintenance noise due to implementation of the proposed project would not result noise levels in excess of standards established in the local general plan or noise ordinance. Permanent increases in ambient noise levels in the project vicinity would not occur, and the transmission and distribution system improvements would not generate a new or different source of permanent noise. Operation and maintenance activities would be comparable to O&M of the existing facilities. Corona and audible noise from the corona effect typically becomes a design concern for transmission lines at 230 kV and higher, and is less noticeable or inaudible on lines operated at lower voltages such as the proposed 60 kV transmission line. This impact would be less than significant.

Table 5.13-1. Typical Noise Levels for Individual Construction Equipment

Equipment	Typical Lmax (dBA, at 50 ft)	Typical Leq (dBA, at 50 ft)
Drill rig, auger	84	77
Crane	81	73
Backhoe	78	74
Excavator	81	77
Compactor	83	76
Dump truck, haul truck, concrete mixer truck	76-79	73-76
Pickup truck, crew truck	75	62-71

Source: FHWA, 2006.
Lmax: Maximum noise level from Actual Measured in Roadway Construction Noise Model.
Leq: Equivalent noise level for one hour incorporating the Acoustical Usage Factor.

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels generation of excessive groundborne vibration or groundborne noise levels?

LESS THAN SIGNIFICANT. Groundborne vibration levels from construction equipment and activities might be perceptible to receptors in the immediate vicinity of the work or staging areas. The activity that would be most likely to cause groundborne vibration would be the passing of heavy trucks on uneven surfaces. The impact from construction-related groundborne vibration would be short-term and confined to only the immediate area around activities (within about 25 feet). As pole locations and work sites, including the work within the existing substations, would be more than 25 feet from residences, no homes would be exposed to excessive vibration, and the impact during construction would be less than significant.

Equipment associated with operation and maintenance of the proposed project would not produce any groundborne noise or vibration; therefore, operation and maintenance of the project would result in no impact under this criterion

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 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?

NO IMPACT. The proposed project would be located adjacent to the west side of the San Jose International Airport. The proposed project would be unstaffed, and the project would not expose people to noise from the airport. Similarly, no excessive noise would result from project operations that could impact people residing or working near the airport. There are no private airstrips located within two miles of the project, therefore the project would have no impact under this criterion. As such, the proposed project would not expose people to excessive noise from aircraft, and there would be no impact.

5.14 Population and Housing

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 (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

5.14.1 Setting

The proposed project site is not in an area zoned for residential uses (City of Santa Clara, 2014a). The surrounding vicinity of the proposed project route currently is a mix of businesses, industrial lots, and residences. Overall, this area of the City of Santa Clara is substantially built out. Substantial increases in population can be achieved only by development of higher density housing, either on vacant land or through redevelopment of existing land uses.

Table 5.14-1 provides existing conditions for the County of Santa Clara and the City of Santa Clara.

Table 5.14-1. Year 2017 Existing Conditions – Population, Housing, and Employment: City of Santa Clara and County of Santa Clara

Location	Population	Housing Units		Employment	
		Total Units	Vacancy Rate	Total Employed*	Unemployment Rate
City of Santa Clara	116,468	45,147	4.7%	69,500	2.7%
County Santa Clara	1,781,642	631,920	4.4%	1,036,800	3.0%

*Accounts for population greater than 16 years of age and in Labor Force.
Source: CA DOF, 2017; CA EDD, 2017

Regulatory Background

This section includes a description of the population and housing regulatory framework. There are no federal or state regulations, plans, and standards for population and housing that apply to the proposed project.

City of Santa Clara General Plan

The purpose of the City’s housing policies is to plan for an adequate variety of safe, appropriate, and well-built housing for all residents of Santa Clara (City of Santa Clara, 2014c). The following policies from the City of Santa Clara General Plan and the Housing Element of the General Plan, respectively, generally relate to the proposed project (City of Santa Clara, 2014b; City of Santa Clara, 2014c):

- **Policy 5.3.1-P5.** Implement a range of development densities and intensities within General Plan land use classification requirements to provide diversity, use land efficiently and meet population and employment growth.
- **Policy D-4:** Encourage early participation from residents and other stakeholders in development of long range plans and review of new development proposals.

5.14.2 Environmental Impacts and Mitigation Measures

- a. *Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?***

LESS THAN SIGNIFICANT. The proposed project is in an urban area that is substantially developed. There would be no direct population growth induced by the project, as it would not provide new housing and would not require an expansion of the SVP workforce to service and maintain the new transmission facilities. During the 6-month construction period, the proposed project would provide short-term jobs for a small workforce. Construction needs are not anticipated to result in workers relocating to the area. The proposed project would therefore generate neither a permanent increase in population levels nor a decrease in available housing.

The construction and operation of the new 60 kV transmission line and reconfiguring of the electric load would facilitate future planned growth by ensuring reliable electricity to the area and would therefore result in an indirect effect of facilitating the development of the surrounding area of the City of Santa Clara. Greater electrical reliability would provide developmental and employment opportunities to the regional workforce. While the further development of this area of the City of Santa Clara may induce some population growth, this has already been accounted for through the City's General Plan. Therefore, there would be a less than significant effect as a result of the proposed project.

- b. *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 be expected to result in an increase in population within the area. Construction of the new 60 kV transmission line would occur over approximately 6 months and would not require the relocation of workers to the proposed project area in the City of Santa Clara. The proposed project would not displace any housing or people, and therefore would not necessitate the construction of replacement housing. Therefore, no impacts would occur.

5.15 Public Services

PUBLIC SERVICES

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:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

5.15.1 Setting

For the area where the proposed project would be located, fire and police services, as well as school districts, parks, recreational areas, and other public services, are provided by the City of Santa Clara, special districts, and private entities.

Fire Protection

The Santa Clara Fire Department (SCFD) serves the City of Santa Clara and provides police protection to the project site and the surrounding area (City of Santa Clara, 2014). There are 10 fire stations throughout the City and each fire station has at least one 3-person engine or ladder-truck company (City of Santa Clara, 2014). The nearest fire station to the site of the proposed project route is Fire Station 2, located at 1900 Walsh Avenue (City of Santa Clara, 2017a), about 0.1 miles from the westernmost part of the proposed project route. The average response time is 3 minutes for all areas of the City (City of Santa Clara, 2014).

Police Protection

The Santa Clara Police Department (SCPD) serves the City of Santa Clara and provides police protection to the project site and the surrounding area (City of Santa Clara, 2014). SCPD headquarters is located at 601 El Camino Real and is about 0.7 miles from the southernmost part of the proposed project route. SCPD has 231 full-time employees, including 155 sworn officers and 76 civilians (City of Santa Clara, 2017d), divided into 3 divisions (City of Santa Clara, 2014). The average response time after dispatch is 4 minutes and 37 seconds (City of Santa Clara, 2017e).

Schools

Six school districts serve the City of Santa Clara: Santa Clara Unified School District, San José Unified School District, Cupertino Union School District, Fremont Union High School District, Campbell Union School District, and Campbell Union High School District. The Santa Clara Unified School District is the only school district that operates schools within the City of Santa Clara (City of Santa Clara, 2014). There are no schools or learning centers located within a 0.25-mile radius of the proposed project route.

Parks

There are 39 parks in the City of Santa Clara (City of Santa Clara, 2017c). The park nearest to the site of the proposed project is the Raymond G. Gamma Dog Park, located about 0.3 miles south of the proposed project at 888 Reed Street (City of Santa Clara, 2017b). All other parks are located north of Highway 101 or south of the Caltrain railway tracks and are over 0.5 miles away from the proposed project area.

Hospitals

The following 3 hospitals are closest to the site of the proposed project:

- O'Connor Hospital, located at 2105 Forest Avenue, San Jose, CA and about 2.5 miles south of the proposed project route;
- Kaiser Permanente Santa Clara Medical Center, located at 700 Lawrence Expressway, Santa Clara, CA and about 3.3 miles southwest of the Propose Project route;
- Santa Clara Valley Medical Center, located at 751 S. Bascom Avenue, San Jose, CA and about 3.5 miles southwest of the proposed project route.

Regulatory Background

This section includes a description of the public services regulatory framework. There are no federal regulations associated with public services that are relevant to the proposed project.

State

2010 Strategic Fire Plan for California. The 2010 Strategic Fire Plan for California was developed in coordination with the State Board of Forestry and Fire Protection and CAL FIRE to reduce and prevent the impacts of fire in California. Goal 6 of the Plan sets objectives to determine the level of suppression resources (staffing and equipment) needed to protect private and public state resources. Specific objectives include, but are not limited to, maintaining an initial attack policy which prioritizes life, property, and natural resources; determining suppression resources allocation criteria; analyzing appropriate staffing levels and equipment needs in relation to the current and future conditions; increasing the number of CAL FIRE crews for fighting wildfires and other emergency response activities; maintaining cooperative agreements with local, state, and federal partners; and implementing new technologies to improve firefighter safety, where available (State Board of Forestry and Fire Protection). The standards outlined are applicable to the fire protection agency serving the City of Santa Clara.

Local

City of Santa Clara General Plan. The purpose of the City's public services policies is to maintain the safety and security that is essential and integral to the quality of life in the City's community. The following policy in the General Plan generally relate to the proposed project (City of Santa Clara, 2014):

- **Policy 5.9.3-P1.** Encourage design techniques that promote public and property safety in new development and public spaces.

5.15.2 Environmental Impacts and Mitigation Measures

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:

a) Fire protection?

LESS THAN SIGNIFICANT. The reconductoring and construction of the new 60 kV transmission line would result in fire risk that would be comparable to that of the transmission line that is being replaced and other existing electrical infrastructure in the area. The proposed project area would continue to be adequately supported by the existing fire protection services since the construction and operation of the proposed project would not induce growth in the project area and the fire risk from the proposed project would not create the need for new or physically altered fire protection facilities. In addition, operation and maintenance would not affect the ability of fire personnel to respond to fires. The majority of construction-related activities would be located away from major emergency access routes and not be expected to significantly interfere with emergency response. Impacts on local or regional fire protection would be less than significant.

b) Police Protection?

LESS THAN SIGNIFICANT. The proposed project would not require police services during construction or operation and maintenance beyond routine patrols and response. As with fire services discussed in Item (a) above, the construction and operation of the proposed project would not induce growth in the project area, would not result in a need for additional police facilities or affect response times or other service performance. The majority of construction-related activities would be located away from major emergency access routes and not be expected to significantly interfere with emergency response. The result would be a less than significant impact.

c) Schools?

NO IMPACT. The proposed project would not be expected to result in an increase in population within the area. Construction of the new 60 kV transmission line would occur over approximately 6 months and would not require the relocation of workers' families to the City of Santa Clara. There would not be an expected increase in families or in school-age children as a result of the temporary construction activities and any workers who might temporarily migrate to the area. After construction, SVP's existing maintenance and operations group would assume inspection, patrol, and maintenance duties as needed; therefore, no additional staff would be required after project construction work is completed. The Propose Project would result in no impact related to requiring expanded schools.

d) Parks?

NO IMPACT. The proposed project would not increase the region's population. Construction of the new 60 kV transmission line would take place over 6 months and would require only a small workforce of construction personnel working on any given day. While it is possible that workers traveling to the area may use existing public services or amenities such as parks, the potential increase in use and demand would be minimal and temporary and would not contribute substantially to the physical deterioration of existing facilities. Consequently, the project would not increase any long-term demands on existing parks in the project area, and no new or expanded park facilities would be required because of the proposed project.

e) Other Public Facilities?

NO IMPACT. The proposed project would not increase population and would not affect other governmental services or public facilities that would lead to the requirement of new or expanded facilities to be developed. Therefore, no impact on other public facilities is expected.

5.16 Recreation

RECREATION	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

5.16.1 Setting

There are 39 parks in the City of Santa Clara (City of Santa Clara, 2017b). In general, each 1-square mile of residential area in the City of Santa Clara contains a neighborhood or community park located close to the center to ensure that almost all residents live within a 10-minute walk of a park (City of Santa Clara, 2014a).

The industrial and business corridor between U.S. 101 and the Caltrain corridor, where the proposed project is located, contains limited open spaces (City of Santa Clara, 2014a). The park nearest to the site of the proposed project area is the Raymond G. Gamma Dog Park, located about 0.3 miles south of the proposed project at 888 Reed Street, Santa Clara, CA (City of Santa Clara, 2017a). The Raymond G. Gamma Dog Park is 1.5 acres and is the only city park that allows dogs to run off-leash. All other parks in the City of Santa Clara are located north of Highway 101 or south of the Caltrain railway tracks and are over 0.5 miles away from the proposed project area. Other recreational facilities in the City of Santa Clara include: sports fields, a skate park, swimming pools/centers, senior center and youth center (City of Santa Clara, 2014b), but none of these area in the vicinity of the proposed project.

Regulatory Background

This section includes a description of the recreation regulatory framework. There are no federal or State regulations associated with recreation that are relevant to the proposed project.

Local

City of Santa Clara General Plan. The objective of the City’s public facilities and services policies is to maintain a high quality of life and livability in the City. The following policies in the General Plan generally relate to the proposed project (City of Santa Clara, 2014a):

- **Policy 5.3.5-P3.** Encourage industrial development to participate in the identification and funding of 25 acres for park and recreational facilities to serve employment centers north of the Caltrain railroad tracks.
- **Policy 5.9.1-P16.** Encourage non-residential development to contribute toward new park facilities to serve the needs of their employees.

5.16.2 Environmental Impacts and Mitigation Measures

a. 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?

NO IMPACT. The project does not include development of new residential or commercial developments that would increase population and would not increase the demand for parks in the project area. Construction of the new 60 kV transmission line would take place over 6 months and would require only a small workforce of construction personnel working on any given day. While some workers may use nearby park facilities during project construction, increased use would be minimal and temporary and would not contribute substantially to the physical deterioration of existing facilities. Therefore, there would be no impact.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

NO IMPACT. The proposed project does not include recreational facilities, nor does it require the construction of new or expanded parks or recreational facilities that could create an adverse physical effect on the environment. There would be no impact.

5.17 Transportation

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 pedestrian facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

5.17.1 Setting

The proposed project would utilize local roadways for accessing work areas during construction. Roadways along the proposed project route would be temporarily disrupted during installation of the new 60 kV transmission line. Baseline conditions of regional and local roadways likely used to access the proposed project area and work locations and those temporarily affected by proposed project construction activities are discussed below.

Highways

The following highways provide regional access to the proposed project area and staging areas in the City of Santa Clara (City) (City of Santa Clara, 2014):

- **U.S. Highway (U.S.) 101**, specifically the section of U.S. 101 known as Bayshore Freeway, is a 8-lane divided (4 lanes per direction) south-north highway that travels the length of the West Coast of the U.S. The San Tomas Expressway exit or the De La Cruz Boulevard/Trimble Road exit would likely be used to access the proposed project area. At the San Tomas Expressway exit, the year 2016 average daily traffic (ADT) volumes on U.S. 101 were 193,000 vehicles per day. At the De La Cruz Boulevard/Trimble Road exit, the year 2016 ADT volumes on U.S. 101 were 183,000 vehicles per day (Caltrans, 2016). Year 2016 ADT volumes represent the most recently published data.
- **State Route (SR) 237**, or Southbay Freeway, is an 8-lane divided west-east highway that connects Interstate (I)-880 and I-680 with U.S. 101 and SR 85 and extends northeast through the city. The Great America Parkway exit would likely be used to access the proposed project area. At this exit, year 2016 ADT volumes on Route 237 were 124,000 vehicles per day (Caltrans, 2016).
- **Interstate 280**, or Junipero Serra Freeway, is a 10-lane south-north regional highway that connects I-880 and SR-1 and extends south through the City. The exit at the junction of I-280 with Route 17 and I-880 would likely be the used to access the proposed project area. At this exit, year 2016 ADT volumes on I-280 were 205,000 vehicles per day (Caltrans, 2016).

Local Roads

Roadway and intersection operating conditions and the adequacy of existing roadway systems to accommodate traffic can be described in terms of level of service (LOS) ratings. LOS is expressed as A through F, with LOS A as the best operating conditions (characterized by free-flow traffic, low volumes, and little or

no restrictions on maneuverability) and LOS F being the worst operating conditions (stop-and-go traffic flow with high traffic densities and slow travel speeds).

Access Routes

Table 5.17-1 provides information on some primarily local travel routes that would likely be used by project-related vehicles to access the construction staging yards and the proposed project route. Details on access routes that would also be disrupted by project construction are discussed below under “Roadways Disrupted by Project Construction” and are not repeated in Table 5.17-1. While the average daily traffic provided in Table 5.17-1 are from 2011, it remains the most currently available ADT volume data for these roadways.

Table 5.17-1. Existing Local Roadway Conditions

Street	Lanes	ADT Volume	LOS
San Tomas Expressway (between Central Expressway and Walsh Avenue)	8	72,800	D
San Tomas Expressway (between Walsh Avenue and Monroe Street)	8	70,620	D
Trimble Road (between City Limits and De La Cruz Boulevard)	4	31,070	D
Monroe Street (between San Tomas Expressway and Scott Boulevard)	4	15,260	D
El Camino Real (between De La Cruz Boulevard/Coleman Avenue and Benton Street)	6	28,820	D

LOS = level of service
Source: City of Santa Clara, 2011.

Roadways Disrupted by Project Construction

Construction of the proposed project would result in a temporary disruption to several local roadways along the proposed project route. The main roads that may require closure temporary lane closures, as shown in Figure 1, are:

- **Central Expressway**, is a 4-lane expressway located south of U.S. 101 that connects San Jose to Mountain View. Central Expressway between Scott Boulevard and Lafayette Street has a year 2011 ADT volume of 47,550 vehicles per day and is LOS D, which is approaching unstable flow with queues developing rapidly but with no excessive delays (City of Santa Clara, 2011). The affected segment is approximately 41 feet long.
- **Lafayette Street** is a 4-lane roadway. Lafayette Street between Central Expressway and Walsh Avenue has a year 2011 ADT volume of 18,060 vehicles per day and is LOS D, which is approaching unstable flow with queues developing rapidly but with no excessive delays. Lafayette Street between Walsh Avenue and Reed Street has a year 2011 ADT volume of 15,140 vehicles per day and is LOS C, which corresponds to stable operation with acceptable delays. (City of Santa Clara, 2011) The affected segment is approximately 0.6 miles long.
- **Scott Boulevard** is a 5-lane roadway. Scott Boulevard between Walsh Avenue and Monroe Street has a year 2011 ADT volume of 8,540 vehicles per day and is LOS C (City of Santa Clara, 2011). The affected segment is approximately 400 feet long.
- **Martin Avenue** is a 4-lane roadway. While ADT volumes along this roadway are unavailable, they are considered low with this segment primarily serving the businesses located within the immediate area (City of Santa Clara, 2011). The affected segment is approximately 0.65 miles long.

- **Mathew Street** is a 2-lane roadway that ends in a dead end. While ADT volumes along this roadway are unavailable, they are considered low with this segment primarily serving the businesses located along the street (City of Santa Clara, 2011). The affected segment is approximately 0.65 miles long.
- **De La Cruz Boulevard** is a 6-lane roadway. De La Cruz Boulevard between Central Expressway and Coleman Avenue has a year 2011 ADT volume of 20,170 vehicles per day and is LOS C (City of Santa Clara, 2011). The affected segment is approximately 0.2 miles long.
- **Walsh Avenue** is a 4-lane roadway. Walsh Avenue between Scott Boulevard and Lafayette Street has a year 2011 ADT volume of 14,680 vehicles per day and is LOS D (City of Santa Clara, 2011). The affected segment would be at Walsh Substation.

Mass Transit

Bus

Existing public transit service within the City is primarily provided by Santa Clara Valley Transportation Authority (VTA) and consists of bus, light rail transit, and paratransit services. VTA bus routes 58, 60, and 304 are located along the proposed project route (VTA, 2016). The following provides specifics of these routes with respect to the proposed project route:

- **Route 58** travels on Central Expressway along the northernmost part of the proposed route (VTA, 2016). The following bus stop located along Central Expressway is affected by the proposed project (VTA, 2017):
 - North side of Central Expressway just west of intersection with Lafayette Avenue
- **Route 60** travels on Scott Boulevard along the westernmost part of the proposed route (VTA, 2016). There are no bus stops located along Scott Boulevard that are affected by the proposed project (VTA, 2017).
- **Route 304** travels on De La Cruz Boulevard along the easternmost part of the proposed route (VTA, 2016). The following bus stops located along De La Cruz Boulevard are affected by the proposed project (VTA, 2017):
 - East side of De La Cruz Boulevard just north of the intersection with Martin Avenue
 - West side of De La Cruz Boulevard just north of the intersection with Martin Avenue

Passenger Rail

Existing commuter rail lines include Caltrain, operated by the Peninsula Joint Powers Board (JPB), and Altamont Commuter Express (ACE), operated by the San Joaquin Regional Rail Commission. Both stop at the Santa Clara Transit Station. The Capitol Corridor commuter rail line, operated by the Capitol Corridor Joint Powers Authority (CCJPA), stops at the Great America Station and provides transit services from Sacramento to San Jose through the City of Santa Clara. Planned transit developments in the City include Bay Area Rapid Transit (BART), and High Speed Rail along the Caltrain corridor. (City of Santa Clara, 2011 and 2014)

Rail (Freight)

A limited number of freight trains and regularly scheduled passenger service use the railroad track daily within the City. Outside peak commuter rail periods, the Union Pacific Railroad (UPRR) provides freight operations within the Caltrain right-of-way (ROW). The Caltrain ROW traverses through the middle and downtown areas of the City of Santa Clara. The rail network includes grade-separated and at-grade railroad

crossings. The network includes the potential for additional crossings to accommodate a future high-speed rail. (City of Santa Clara, 2014)

Bicycle

Existing bicycle facilities are part of City of Santa Clara Bicycle and Trail Network. Bicycle and Trail Network provides connections between residential neighborhoods, employment, recreation, education, and transit centers within the City (City of Santa Clara, 2014). Bikeways are typically classified as Class I, II, or III facilities. Bike paths or trails (also known as Class I bikeways) operate within a right-of-way that is separated from vehicular traffic. Bike lanes (also known as Class II bikeways) are located within roadways, but are delineated by warning symbols and striping. Bike routes (also known as Class III bikeways) operate in the shoulder lane of roadways, but are not delineated by striping. One Class II bikeway is located along De La Cruz Boulevard on the section of the Boulevard north of the proposed project route along this road (City of Santa Clara, 2013).

Air Transportation

The Norman Y. Mineta San Jose International Airport (Airport) is located to the east of, and adjacent to, the City of Santa Clara. The Airport is directly adjacent to the eastern section of the proposed project route. A private heliport, McCandless heliport, is located about 1 mile northwest of the proposed project area.

Regulatory Background

Federal

14 CFR Part 77 – Safe, Efficient Use, and Preservation of the Navigable Airspace. Construction of a project could potentially impact aviation activities if a structure or equipment were positioned such that it would be a hazard to navigable airspace. The Federal Aviation Administration (FAA) has established reporting requirements if any construction includes equipment or structures more than 200 feet above ground level or results in an object penetrating an imaginary surface extending outward and upward at a ratio of 100 to 1 from a public or military airport runway out to a horizontal distance of 20,000 feet (approximately 3.78 miles) (FAA, 2016). For areas around heliports, this same requirement applies to any construction that is more than 200 feet above ground level or would penetrate an imaginary surface extending outward and upward at a ratio 25 to 1 from a public or military heliport out to a horizontal distance of 5,000 feet.

State

California Vehicle Code (CVC). The CVC includes regulations pertaining to licensing, size, weight, and load of vehicles operated on highways; safe operation of vehicles; and the transportation of hazardous materials.

Local

City of Santa Clara General Plan. The objectives of the City's mobility and transportation policies are to a safe, efficient, convenient, and integrated system to move people and goods and promote a reduction in the use of personal vehicles and vehicle miles traveled. The following policies in the General Plan generally relate to the proposed project (City of Santa Clara, 2014):

- **Policy 5.8.2-P3.** Encourage undergrounding of utilities and utility equipment within the public right-of-way and site these facilities to provide opportunities for street trees and adequate sidewalks.

- **Policy 5.8.5-P1.** Require new development and City employees to implement transportation demand management programs that can include site-design measures, including preferred carpool and vanpool parking, enhanced pedestrian access, bicycle storage and recreational facilities.
- **Policy 5.8.5-P4.** Encourage new development to participate in shuttle programs to access local transit services within the City, including buses, light rail, Bay Area Rapid Transit, Caltrain, Altamont Commuter Express Yellow Shuttle, and Lawrence Caltrain Bowers/Walsh Shuttle services.

5.17.2 Environmental Impacts and Mitigation Measures

a. *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 WITH MITIGATION INCORPORATED – CONSTRUCTION. Project construction would occur in a highly urbanized setting and would therefore create impacts to public, private, and pedestrian transit in the project area. Some road closures and/or one-way traffic controls would be required to allow for certain construction activities and to maintain public safety. These closures and controls would decrease traffic flow and parking availability in the project area, particularly on Lafayette Street. The ROW width that would be required for the transmission line is 50 feet. SVP would obtain ministerial encroachment permits to conduct work in public and railroad ROWs in accordance with applicable City and UPRR requirements. Many of the existing power lines in the project vicinity are located along the edges of the roadway, such as in landscaped planter areas, the perimeters of parking lots, or in sidewalks. The new transmission structures would also follow the edge of the roadway and would need to be installed in the same general areas as the existing power lines. Construction zones would occur entirely within the paved portion of City streets, and some sidewalk closures are possible.

The Class II bike lane along De La Cruz Boulevard is north of the proposed project route, which is proposed along De La Cruz Boulevard between Martin Street and Mathew Street. The proposed project would not permanently remove bicycle lanes or conflict with alternative transportation routes.

While construction would create impacts, these impacts would be localized, temporary in nature, and would not change long-term traffic loads or patterns. Mitigation Measure T-1 is proposed to provide specificity regarding the requirements of a Construction Traffic Control Plan. The purpose of this plan would be to reduce potential impacts to the circulation system from the closure/disruption to roadways and travel lanes. With the incorporation of this mitigation, construction would not conflict with programs, policies, plans, or ordinances regarding public roadway, transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

NO IMPACT – OPERATIONS AND MAINTENANCE. SVP's existing maintenance and operations group would assume inspection, patrol, and maintenance duties as needed. Typical maintenance activities involve both routine inspections and preventive maintenance to ensure service reliability, as well as emergency work to maintain or restore service continuity. No additional staff would be required after project construction work is completed. No substantial increase in traffic or traffic-related impacts would occur due to operation and maintenance activities.

Mitigation Measures for Transportation Impacts

MM T-1 Construction Traffic Control Plan. Prior to the start of construction, Silicon Valley Power (SVP) shall prepare and submit a Construction Traffic Control Plan for review and approval to the City of Santa Clara (City) Planning Department for public roads and transportation facilities that would be directly affected by the construction activities and/or would require

permits and approvals. SVP shall submit the Construction Traffic Control Plan to the City prior to conducting activities covered in the traffic control permits. The Construction Traffic Control Plan shall include, but not be limited to:

- The locations and use of flaggers, warning signs, lights, barricades, delineators, cones, arrow boards, etc., according to standard guidelines outlined in the Manual on Uniform Traffic Control Devices, the Standard Specifications for Public Works Construction, and/or the California Joint Utility Traffic Control Manual.
- Additional methods to reduce temporary traffic delays and trips during peak travel hours (8:00-10:00 a.m. and 4:00-6:00 p.m.) to the maximum extent feasible.
- Typical access routes between all staging areas and the proposed work areas.
- Defining methods to coordinate with the City throughout construction to minimize cumulative lane disruption impacts should simultaneous construction projects affect shared segments/portions of the circulation system.
- Prior to the start of construction, provide (or identify the timing to provide) the City with methods to comply with all specified requirements.
- Plans to coordinate in advance with emergency service providers to avoid restricting the movements of emergency vehicles. Police departments and fire departments shall be notified in advance by SVP of the proposed locations, nature, timing, and duration of any roadway disruptions, and shall be advised of any access restrictions that could impact their effectiveness. At locations where roads will be blocked, provisions shall be ready at all times to accommodate emergency vehicles, such as immediately stopping work for emergency vehicle passage, providing short detours, and developing alternate routes in conjunction with the public agencies. Documentation of the coordination with police and fire departments shall be gathered prior to the start of construction.
- Plans to coordinate in advance with property owners, if any, that may have limited access to properties due to temporary lane closures. Provisions for ensuring secondary access should be provided.

b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

LESS THAN SIGNIFICANT – CONSTRUCTION. CEQA Guidelines section 15064.3(b) concerns vehicle miles travelled (VMT) as the measure of transportation impacts. Currently, use of the provisions of section 15064.3(b) is at the discretion of the CEQA lead agency, but become mandatory statewide beginning July 1, 2020. As discussed in CEQA Guidelines Section 15064.3(b)(3), a qualitative analysis of construction traffic vehicle miles travelled (VMT) may be appropriate.

Construction of the proposed project would occur over approximately 6 months and proposed project-related traffic would be limited to worker commutes and the transport of supplies and equipment to and from construction areas and material supply sources. Once the project is completed, the vehicle trips associated with construction would end. The total peak number of vehicle trips is estimated to be up to 30 roundtrips daily. Construction personnel would commute to the staging yards and work sites at the beginning of the day and leave at the end of the day, and few people would travel to and from work areas throughout the middle of the day.

Vehicle miles traveled by personal vehicle trips and truck trips during construction would vary in their origins and destinations, but they are assumed to come primarily from the local or Bay Area and they

would be periodic and temporary. At this time, no known applicable VMT thresholds of significance for temporary construction trips that may indicate a significant impact is known. Therefore, while the proposed project would include temporary construction trips with some that may include higher VMT to deliver specialized materials and equipment, they would be temporary and the project would not affect existing transit uses or corridors and is presumed to cause a less than significant transportation impact under State CEQA Guidelines section 15064.3(b).

LESS THAN SIGNIFICANT – OPERATIONS AND MAINTENANCE. Maintenance of the proposed project would require routine inspection and periodic maintenance visits by existing SVP personnel. These activities would generate a negligible number of new vehicle trips with no notable growth in VMT. The transportation impact under State CEQA Guidelines section 15064.3(b) would be less than significant.

c. 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 WITH MITIGATION INCORPORATED – CONSTRUCTION. Heavy equipment operating adjacent to or within a road right-of-way could increase the risk of accidents. Construction of the proposed project would involve activities within and adjacent to public roadways, requiring temporary lane narrowing and in some instances temporary lane or roadway closures. Construction-generated trucks on the affected city streets would interact with other vehicles, and potentially create hazards. Potential conflicts also could occur between construction traffic and bicyclists and pedestrians, and potential short-term hazards could be associated with temporary lane closures during construction. Construction traffic-related impacts would be reduced with implementation of Mitigation Measure T-1 (Construction Traffic Control Plan) to ensure temporary lane closures and construction activities do not result in increased hazards to the traffic circulation system.

Mitigation Measure T-1 requires the project applicant to obtain and adhere to all requirements of an Encroachment Permit from the city, and to prepare a Traffic Control Plan that provides for the safe and efficient movement of emergency vehicles, bicycles, pedestrians, and transit vehicles through or around construction zones while protecting the workers, equipment, and construction areas. While there may be a limited increase in hazards due to construction activities proximate to public roadways, construction would be temporary and with the incorporation of Mitigation Measure T-1, temporary impacts during construction would be less than significant.

LESS THAN SIGNIFICANT – OPERATIONS AND MAINTENANCE. The height and form of the proposed project structures would be similar to the existing 60 kV transmission structures located adjacent to roadways throughout the City and they are not expected to increase transportation hazards or be an incompatible use. Maintenance of the proposed project would require routine inspection and periodic maintenance visits. While temporary lane closures are not anticipated, occasionally maintenance vehicles or equipment may be temporarily present alongside the roadways depending on structure locations; however, at least one lane of travel would remain open at all times. Therefore, the project would not cause hazards or incompatible uses due to maintenance activities proximate to public roadways; no mitigation is required.

Mitigation Measures for Transportation Hazards

MM T-1 Construction Traffic Control Plan. [see full text under Item (a) above]

d. Would the project result in inadequate emergency access?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. Construction of the proposed project would cause a minor short-term increase in the local traffic in the immediate vicinity of the section of the proposed route

if there would be a temporary lane closure. The proposed project would not increase traffic substantially as compared to the existing traffic volume and the capacity of the street system in the area. At least one lane of travel through each construction area would remain open throughout the construction period to accommodate roadway users (including emergency vehicles). To ensure temporary lane closures do not result in inadequate emergency vehicle movements or impede access to property, Mitigation Measure T-1 (Construction Traffic Control Plan) is proposed and would require review and approval of a project-specific Construction Traffic Control Plan, which would include specific measures to address temporary closures/disruptions to travel lanes and plans to coordinate in advance with emergency service providers. With the incorporation of Mitigation Measure T-1, temporary impacts during construction would be less than significant.

LESS THAN SIGNIFICANT – OPERATION AND MAINTENANCE. Once operational, the proposed project would have minimal impact on access or movement to emergency service providers. Occasional maintenance activities would be short-term in duration throughout the project area. While temporary lane closures are not anticipated, occasionally maintenance vehicles or equipment may be temporarily present alongside the roadways depending on structure locations; however, at least one lane of travel would remain open at all times. Therefore, maintenance of the proposed project would have a less than significant impact on emergency vehicle access and movements.

Mitigation Measures for Emergency Access

MM T-1 **Construction Traffic Control Plan.** [see full text under Item (a) above]

5.18 Tribal Cultural Resources

TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
(i) 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	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ii) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

5.18.1 Setting

Tribal Cultural Resources (TCRs), as defined under Assembly Bill 52 (AB 52) are resources that include sites, features, places, cultural landscapes, and sacred places or objects that have cultural value or significance to a California Native American tribe. Tribal representatives are considered experts appropriate for providing substantial evidence regarding the locations, types, and significance of TCRs within their traditional and cultural affiliated geographic areas, and therefore the identification and analysis of TCRs should involve government-to-government tribal consultation between the CEQA lead agency and interested tribal groups and/or tribal persons (Public Resources Code [PRC] §21080.3.1(a)).

Additionally, best practices show that a lead agency should make a good faith effort to identify TCRs that may be impacted by a project even if a Native American tribe does not identify any during consultation. This includes requesting a search of the Native American Heritage Commission's (NAHC) Sacred Lands file, conducting ethnographic research, and using information that has been previously provided during tribal consultation for other projects in the area.

Records Search

As documented in Section 5.5 (Cultural Resources), the records search indicates that no prehistoric cultural resources have been previously identified in the project area, and three resources have been identified outside of the project area within a 1/8-mile radius. These consist of two historic resources and one prehistoric resource: the historic Paragon Mechanical Building (CHRIS #P-43-001731), historic Santa Clara Public Works Building and Maintenance Facility (P-43-003529), and a prehistoric cemetery (P-43-001080).

P-43-001731 Paragon Mechanical Building. A steel-sided building constructed in 1959-1960 by the Reliance Steel Corporation. A resource assessment and evaluation was completed in 2005 and recommended the resource as ineligible to the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR).

P-43-003529 Santa Clara Public Works Building and Maintenance Facility. Resource consists of two buildings constructed in the 1950s and a modern gas compression plant building. A resource assessment and evaluation was completed in 2015 and recommended the resource as ineligible to the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR).

P-43-001080 Prehistoric Cemetery. Recorded in 2010, the cemetery consisted of ten burials and associated materials. Nine of the burials were removed in 2010 by Alan Leventhal, Rosemary Cambra, and Andrew Galven of the Ohlone Families Consulting Services. The resource has not been formally evaluated for its potential eligibility to the NRHP or CRHR.

Ethnographic Research

The project area is located within the tribal territory of the “Costanoan,” a term derived from the Spanish word *Costanos*, meaning “coast people” or “coastal dwellers.” At the time of European ethnic groups’ arrival, the Costanoan occupied the central California coast from the northern tip of the San Francisco Peninsula to Big Sur in the south and as far east as the Diablo Range. An estimated 1,400 or more persons of partial Costanoan descent currently reside in the greater San Francisco Bay Area. These individuals now generally prefer the term Ohlone to identify themselves (Margolin, 1978).

The Costanoan language is part of the Penutian language family spoken by other California Indian groups known as the Wintun, Maidu, Miwok, and Yokuts. The Costanoan (Ohlone) language family consists of six dialect clusters, of which three were recorded during the ethnohistoric period, including the San Francisco Bay Costanoan, Mutsun along the Pajaro River, and Rumsen near Monterey and Carmel (Golla, 2011:162-163). Linguistic analysis suggests that the Costanoans moved into the Bay Area from the San Joaquin and Sacramento River regions around 1,500 years BP and replaced the original Hokan peaking population of the Bay Area. This suggested replacement appears to coincide with the appearance of Late Horizon artifact assemblages. Further details of Costanoan linguistic relationships can be found in Levy (1976). Researchers, using Spanish mission records and archaeological data, have estimated a Costanoan population of 1,000 to 1,200 individuals for the Santa Clara Valley in 1770 (Levy, 1978:485; King, 1977:54).

The Costanoan practiced a hunting and collecting economy focusing on the collection of seasonal plant and animal resources including tidal and marine resources from San Francisco Bay. They traded with neighboring groups including the Yokuts to the east and exported shells, salt and cinnabar among other items. At the time of contact with Europeans, the Costanoan people were living in approximately 50 separate and politically autonomous tribelets, with each group having one or more permanent villages surrounded by a number of temporary camps used to exploit seasonally available floral and faunal resources (Levy, 1978:485, 487).

Mission Santa Clara and Mission San José were established in the South Bay in the late 1770s. The aboriginal lifeway disappeared by 1810 due to its disruption by introduced diseases, a declining birth rate, and the impact of the mission system. Missionization not only decimated local populations but also relocated native peoples from throughout north-central California into the San José area. The Costanoan/Ohlone were transformed from hunters and gatherers into agricultural laborers (and in some cases, craft artisans) who lived at the missions and worked with former neighboring Native American groups such as the Esselen, Yokuts, and Miwok (Levy, 1978:486).

With secularization of the missions by Mexico in 1834, most of the aboriginal population gradually moved to ranchos to work as manual laborers (Levy, 1978:486). During the Mexican Period several ranchos were granted to Native Americans, such as Rancho Ulistac and the Rancho Posolmi. Rancho Ulistac, located on the west bank of the Guadalupe River in the City of Santa Clara, was granted to “emancipated” Mission Indians Marcello, Pio, and Cristobal in 1845 (Hendry and Bowman, 1940:872-873). Rancho Posolmi, located along the Guadalupe River at the northeastern boundary of the City of Mountain View, was granted to Lopez Indigo (or Yndigo) in 1881 (San Jose, 2011).

Contemporary descendants of the Costanoan (Ohlone) Native Americans are not members of federally recognized tribes. Ohlone recognition and assertion began to move to the forefront during the early twentieth century, enforced by legal suits brought against the United States government by Indians of California (1928–1964) for reparation due them for the loss of traditional lands. The Ohlone/Costanoan Muwekma Tribe, consisting surviving Native American lineages who trace their ancestry through Missions Dolores, Santa Clara and San José, and who have descendants from the historic federally recognized Verona Band of Alameda County, are currently completing legal actions to regain federal status. Other Bay Area groups of Ohlone/Costanoan have or are contemplating status recognition. The State of California has recognized the validity of unrecognized tribal groups of local Native Americans and has afforded both the groups and Native American individuals status in regard to consultation for planning and CEQA compliance (San Jose, 2011).

Regulatory Setting

State

California Environmental Quality Act. CEQA requires that impacts to TCRs be identified and, if impacts will be significant, that mitigation measures be implemented to reduce those impacts to the extent feasible (PRC §21081). In the protection and management of the cultural environment, both the statute and the CEQA Guidelines (14 California Code of Regulations §15000 et seq.) provide definitions and standards for management of TCRs.

PRC Section 21074 defines a TCR as “a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe.” TCRs also include “non-unique archaeological resources” that may not be scientifically significant, but still hold sacred or cultural value to a consulting tribe.

A resource shall be considered significant if it is: (1) listed or eligible for listing in the California Register of Historical Resources (CRHR), or in a local register of historical resources as defined in PRC Section 5020.1(k) (discussed in detail above); or (2) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying these criteria, the lead agency must consider the significance of the resource to a California Native American tribe.

Therefore, a project may have substantial adverse change in the significance of a TCR if:

- The adverse change is identified through consultation with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project (PRC §21084.2).
- The resource is listed, or eligible for listing, in the CRHR or in a local register of historical resources, and it is demolished as described in detail above (State CEQA Guidelines §15064.5(b)).

The fact that a TCR is not listed in the CRHR, determined to be ineligible for listing in the CRHR, not included in a local register of historical resources, or is not identified in a historical resources survey does not preclude a lead agency from determining that the resource may be a historical resource. Refer to CEQA Guidelines Section 15064.5(a) for a detailed discussion of the term “historical resource.”

CEQA Guidelines Section 15064.5(b)(1) explains that effects on historical resources (or TCRs, if so determined by the lead agency) would be considered adverse if it involves physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource would be materially impaired. Adverse effects on historical resources may result in a project having a significant effect on the environment. CEQA Guidelines Section 15064.5(c)(3) requires that TCRs receive treatment under PRC Section 21083.2, which requires that these resources be preserved in place or left in an undisturbed state. If these treatments are not possible, then mitigation for significant effects is required, as outlined in PRC Section 21082.2(c).

The statutes and guidelines cited above specify how TCRs are to be analyzed for projects subject to the CEQA.

Tribal Outreach

There are currently no tribes or tribal representatives with cultural affiliations to the project area that have previously contacted the City of Santa Clara in writing to request to be notified of City projects.

The proposed project’s effects on potentially buried and therefore presently unidentified TCRs was evaluated using the significance criteria set forth in Appendix G of the CEQA Guidelines and with consideration to AB 52 and the Governor’s Office of Planning and Research’s, “Revised Technical Advisory: AB 52 and Tribal Cultural Resources in CEQA” (OPR, 2017).

Sacred Lands File Search

The City requested a search of the NAHC’s Sacred Lands file to determine the presence or likelihood of encountering TCRs within the project area. On November 8, 2017, the NAHC responded that the search was completed with negative results (i.e., no sacred sites are located within the project area or surrounding 1/8-mile radius). However, the NAHC stated that the area was sensitive for potential tribal cultural resources (Lienert, 2017).

5.18.2 Environmental Impacts and Mitigation Measures

a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

(i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. There are no known TCRs that are listed in, or are known to be eligible for listing in, the CRHR or local register of historical resources within the proposed project site or within 1/8 mile of the project site. Although there is no evidence that TCRs exist within the proposed project site, it is possible that previously unidentified TCRs that may be eligible for inclusion in the NRHP, CRHR, or local registers could be discovered and damaged, or destroyed, during ground disturbance, which would constitute a significant impact absent mitigation. Implementation of Mitigation

Measure TCR-1 would evaluate and protect unanticipated TCR discoveries, thereby reducing this impact to a less than significant level after mitigation.

Mitigation Measure for Unanticipated Tribal Cultural Resources

MM TCR-1 Management of Unanticipated Tribal Cultural Resources. During project-level construction, should subsurface tribal cultural resources be discovered, all activity in the vicinity of the find shall stop and a qualified archaeologist and an authorized tribal representative shall be contacted to assess the significance of the find according to CEQA Guidelines Section 15064.5 and Section 21074. If any find is determined to be significant, the archaeologist shall determine, in consultation with the implementing agency and any local Native American groups expressing interest, appropriate avoidance measures or other appropriate mitigation. Per CEQA Guidelines Section 15126.4(b)(3), preservation in place shall be the preferred means to avoid impacts to tribal cultural resources. Methods of avoidance may include, but shall not be limited to, project reroute or redesign, project cancellation, or identification of protection measures such as capping or fencing. Consistent with CEQA Guidelines Section 15126.4(b)(3)(C), if it is demonstrated that resources cannot be avoided, the qualified archaeologist shall develop additional treatment measures, such as data recovery or other appropriate measures, in consultation with the implementing agency and any local Native American representatives expressing interest in the tribal cultural resource.

(ii) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. No known TCRs were identified during a search of the NAHC's Sacred Lands File, or during ethnographic research, and Native American tribes did not request to be notified of projects pursuant to AB 52, and thus did not participate in government-to-government consultation to identify TCRs present. Nevertheless, it is possible that previously unidentified TCRs that may qualify as a significant resource according to lead agency determination could be discovered and damaged, or destroyed, during ground disturbance. Such a discovery or inadvertent damage/destruction to a previously unknown TCR would constitute a significant impact absent mitigation. Implementation of Mitigation Measures TCR-1, which is discussed under Item (a), would evaluate and protect unanticipated TCR discoveries, thereby reducing this impact to a less than significant level.

Mitigation Measure for Unanticipated Tribal Cultural Resources

MM TCR-1 Management of Unanticipated Tribal Cultural Resources [see full text under Item (a) above]

5.19 Utilities and Service Systems

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 storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

5.19.1 Setting

Utility and services system facilities associated with electricity, domestic (potable) water, stormwater, solid waste, communications, and natural gas are provided and maintained by a variety of local purveyors, including cities, counties, special districts, water agencies, and private companies. Table 5.17-1 lists utility providers in the area.

Table 5.19-1. Utility Providers

Natural gas – Pacific Gas & Electric Company

Electricity – Silicon Valley Power

Water – City of San Francisco's Hetch Hetchy aqueduct, Santa Clara Valley Water District, Santa Clara City-owned wells

Wastewater – San José-Santa Clara Water Pollution Control Plant

Telephone – AT&T, Comcast

Solid Waste – Mission Trail Waste Systems, Allied Waste, Green Waste Recovery, and Los Gatos Garbage Company

Source: City of Santa Clara, 2014

Utilities

Water Supply

Potable water for the City of Santa Clara comes from a combination of sources: the City of San Francisco's Hetch Hetchy aqueduct system, the Santa Clara Valley Water District, and groundwater from City-owned wells. Groundwater comprises almost 70 percent of the City's water supply. Recycled wastewater is also

used in the City for certain landscape irrigation, industrial, and construction purposes (City of Santa Clara, 2014).

Electricity and Natural Gas

Silicon Valley Power (SVP) is owned and operated by the City of Santa Clara as a municipal electric utility and as a department of the City. SVP maintains almost 350 miles of underground distribution lines, nearly 200 miles of overhead distribution lines and over 50 miles of transmission lines. Electricity for the City is provided from various sources: natural gas, wind, and hydroelectric generation resources in California and other western states (City of Santa Clara, 2016).

The City’s natural gas is provided by Pacific Gas & Electric Company. Transmission mains deliver gas from basins in California, Canada, and the Western United States (City of Santa Clara, 2014).

Service System

Sewerage/Wastewater

Sewer systems collect wastewater in the City Santa Clara and that wastewater is transported via pipelines to the San Jose–Santa Clara Regional Wastewater Facility (RWF) in San Jose, CA. The RWF also receives wastewater from other cities in Santa Clara County and is able to treat up to 167 million gallons per day (mgd). The plant currently operates at an average dry weather flow of 109.6 mgd (City of San Jose, 2019).

About 10 percent of the total treated wastewater from the RWF is directed into the South Bay Water Recycling system. The treated wastewater is used for landscaping irrigation, dual plumbing, industrial uses, and other approved uses around the southern Bay Area. Recycled water distribution pipelines are located throughout the City of Santa Clara. Treated wastewater that is not directed into the recycled water pipelines is discharged into the southern portion of San Francisco Bay (City of Santa Clara, 2014).

Solid Waste Disposal

Solid waste and recycling collection service in the City of Santa Clara is primarily provided by 4 companies: Mission Trail Waste Systems, Allied Waste, Green Waste Recovery, and Los Gatos Garbage Company. Newby Island Sanitary Landfill is the main landfill that services the City, though solid wastes are also sent to landfills outside of Santa Clara County (City of Santa Clara, 2014). Newby Island Sanitary Landfill is located at 1601 Dixon Landing Road, Milpitas, CA 95035. Table 5.19-2 lists the capacities of the landfills used.

Table 5.19-2. Landfill Capacities

Landfill Name	Total Capacity (cu.yd.)	Remaining Capacity (cu.yd.)	Remaining Capacity (percent)	Maximum Throughput (tons/day)
Newby Island Sanitary Landfill (Cease operation estimated 2041)	57,500,000	21,200,000	36.9	4,000
Guadalupe Sanitary Landfill (Cease operation estimated 2048)	28,600,000	11,055,000	38.7	1,300
Corinda Los Trancos Landfill (Cease operation estimated 2034)	60,500,000	22,180,000	36.7	3,598

Sources: CalRecycle, 2017a; CalRecycle, 2017b; CalRecycle, 2017c

Regulatory Background

This section includes a description of the utilities and public service systems regulatory framework.

Federal

Clean Water Act Section 402: National Pollutant Discharge Elimination System. Section 202 of the Clean Water Act (CWA) establishes the National Pollutant Discharge Elimination System (NPDES) permit program to regulate point source discharges of pollutants of Waters of the United States. Discharges or construction activities that disturb one or more acres, which includes the proposed project, are regulated under the NPDES stormwater program and are required to obtain coverage permit under a NPDES Construction General Permit. The Construction General Permit establishes limits and other requirements such as the implementation of the Stormwater Pollution Prevention Plan, which would further specify best management practices to avoid or eliminate pollution discharge into the nation's waters. The State Water Resources Control Board (SWRCB) issues both general and individual permits under this program. The SWRCB delegates much of its NPDES authority to nine regional water quality control boards. The proposed project's NPDES permits would be under jurisdiction of Region 2, the San Francisco Regional Water Quality Control Board.

State

California Government Code – Protection of Underground Infrastructure. The responsibilities of California utility operators working in the vicinity of utilities are detailed in Section 1, Chapter 3.1, "Protection of Underground Infrastructure" (Article 2 of California Government Code §§4216-4216.9). This law requires that an excavator must contact a regional notification center at least two days prior to excavation of any subsurface installation. Any utility provider seeking to begin a project that may damage underground infrastructure can call Underground Service Alert, the regional notification center. Underground Service Alert will notify the utilities that may have buried lines within 1,000 feet of the project. Representatives of the utilities are required to mark the specific location of their facilities within the work area prior to the start of project activities in the area. The code also requires excavators to probe and expose underground facilities by hand prior to using power equipment.

California Integrated Waste Management Act of 1989. Assembly Bill 939 codified the California Integrated Waste Management Act of 1989 in the Public Resources Code and established a hierarchy to help the California Integrated Waste Management Board (CIWMB) and local agencies implement three major priorities under the Integrated Waste Management Act: source reductions; recycling and composting; and environmentally safe transformation and land disposal. Waste diversion mandates are included under these priorities. The duties and responsibilities of the CIWMB have since been transferred to the California Department of Resources Recycling and Recovery (CalRecycle) after the abolishment of the CIWMB in 2010, but all other aspects of the Act remain unchanged.

The Act requires all local and county governments to adopt a waste reduction measure designed to manage and reduce the amount of solid waste sent to landfills. This Act established reduction goals of 25 percent by the year 1995 and 50 percent by the year 2000. Senate Bill 1016 (2007) streamlines the process of goal measurement related to Assembly Bill 939 by using a disposal-based indicator: the per capita disposal rate. The per capita disposal rate uses only two factors: the jurisdiction's population (employment can be considered in place of population in certain circumstances) and the jurisdiction's disposal as reported by disposal facilities. CalRecycle encourages reduction measures through the continued implementation of reduction measures, legislation, infrastructure, and support of local requirements for new developments to include areas for waste disposal and recycling on-site.

California Code of Regulations (Title 27). Title 27 (Environmental Protection) of the California Code of Regulations defines regulations and minimum standards for the treatment, storage, processing, and disposal of solid waste at disposal sites. The State Water Resources Control Board maintains and regulates compliance with Title 27 (Environmental Protection) of the California Code of Regulations by establishing waste and site classifications and waste management requirements for solid waste treatment, storage, or disposal in landfills, surface impoundments, waste piles, and land treatment units. The compliance of the proposed project would be enforced by the San Francisco RWQCB Region 2 and the California Department of Resources Recycling and Recovery (CalRecycle) (formerly the California Integrated Waste Management Board). Compost facilities are regulated under CCR Title 14, Division 7, Chapter 3.1 Section 17850 through 17895, by CalRecycle. Permit requests, Reports of Waste Discharge, and Reports and Disposal Site Information are submitted to the RWQCB and CalRecycle, and are used by the two agencies to review, permit, and monitor these facilities.

Local

Energy Policies. The purpose of the City’s energy policies is to encourage reduced energy use. The following policies in the General Plan generally relate to the proposed project (City of Santa Clara, 2014):

- **Policy 5.10.3-P10.** Maintain the City’s level of service for high quality utilities and telecommunications infrastructure.
- **Policy 5.10.3-P12.** Work with Silicon Valley Power to implement adequate energy distribution facilities to meet the demand generated by new development.

Water Policies. The purpose of the City’s water policies is off-set increased demand associated with the implementation of the City General Plan. The following policies in the General Plan generally relate to the proposed project (City of Santa Clara, 2014):

- **Policy 5.10.4-P1.** Promote water conservation through development standards, building requirements, landscape design guidelines, education, compliance with the State Water Conservation Landscaping Ordinance, incentives, and other applicable City-wide policies and programs.
- **Policy 5.10.4-P4.** Require an adequate water supply and water quality for all new development.
- **Policy 5.10.4-P5.** Prohibit new development that would reduce water quality below acceptable State and local standards.
- **Policy 5.10.4-P10.** Work with Santa Clara Valley Water District to minimize undesirable compaction of aquifers and subsidence of soils.

Conservation. The City’s conservation policies consider the regulation of wastewater to protect biological resources in the City. The following policy in the General Plan generally relates to the proposed project (City of Santa Clara, 2014):

- **Policy 5.10.1-P6.** Require adequate wastewater treatment and sewer conveyance capacity for all new development.

Land Use. The City’s land use policies consider the effects of development to public facilities and infrastructure. The following policy in the General Plan generally relates to the proposed project (City of Santa Clara, 2014):

- **Policy 5.3.1-P17** Promote economic vitality by maintaining the City’s level of service for public facilities and infrastructure, including affordable utilities and high quality telecommunications.

5.19.2 Environmental Impacts and Mitigation Measures

a. *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*

LESS THAN SIGNIFICANT. The proposed project would involve construction and modification of new and existing electric power transmission facilities. Construction would generate a minimal demand for water or wastewater treatment and no demand for natural gas facilities. It would not require the relocation, expansion, or development of new utility systems. However, it would require minor modifications to some existing electric power and distribution lines and substations. During routine operation and maintenance of the proposed project, SVP's new transmission line would be unmanned and would not create any need for new or expanded utilities or service systems.

Water, Wastewater Treatment or Storm Water Facilities. The proposed project would generate minimal demand for water or wastewater treatment. A water truck may be on-site to support dust suppression during ground disturbing work. Any water used for dust control would be dispersed onsite and would either evaporate or be absorbed into the ground; therefore, no wastewater generation is anticipated. Foundation slurry, a mixture of water and a stabilizing agent for the installation of tubular steel pole foundations, would be disposed of at an approved site away from the work area. Dewatering may be necessary if groundwater is encountered and watering for dust suppression may be needed. Portable toilets would be provided for construction work crews and would be removed after construction is completed and these toilets will be maintained by a licensed sanitation contractor.

The proposed project would not result in any increased stormwater flow entering stormwater drainage systems and therefore would not require, or result in the construction of, new stormwater drainage facilities or the expansion of existing facilities.

Upon completion of construction, the proposed project would not generate any demand for water or wastewater treatment. Existing wastewater and water treatment facilities are adequate to accommodate the demand generated by the proposed project. Thus, the project would have less than significant impact that would not cause the need for the construction or expansion of water or wastewater treatment facilities or storm water drainage.

Electric Power, Natural Gas, or Telecommunications Facilities. Construction of the proposed project would have the potential to disrupt existing underground utility systems or cause a collocation accident. Coordination with other utility system owners and compliance with California Government Code §§4216–4216.9 would reduce the likelihood of accidental disruptions from a collocation accident. Prior to initiating underground construction, including drilling for structure footings, SVP or its contractor would contact Underground Service Alert to identify any existing underground utilities in the construction zone.

b. *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. If water is used for the proposed project, the primary need would be for the foundation slurry used in the construction of the drilled concrete pier foundations for the tubular steel poles. For an approximate foundation size of 8 feet in diameter and 25 feet deep, about 1,250 cubic feet of water would be required at each foundation site. This would be a one-time need.

Water may also be used for dust suppression if necessary during the 6-month construction timeframe. The volume of water required for dust control is not known. However, the amount of water for dust

suppression during construction is considered to be nominal in comparison to available municipal water supply, and water use for construction would be periodic and temporary during the construction period.

Water trucks would provide water for these activities as needed. Upon completion, the proposed project would not generate any demand for water. Therefore, the proposed project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.

c. 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?

LESS THAN SIGNIFICANT. The proposed project would generate minimal wastewater during construction. Foundation slurry for the installation of the tubular steel poles would be disposed of at an approved site away from the work area. The proposed project would also require portable toilets for construction workers and the waste would be disposed of at appropriately licensed official facilities with adequate capacity. As discussed in Item (b) above, existing wastewater facilities would adequately accommodate the minor demand caused by project construction while serving existing commitments. Therefore, this impact would be less than significant.

d. 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. Construction debris and waste generated during construction of the proposed project would be transported to the staging area(s) or to an area Service Center as needed for recycling or disposal. Existing wood poles would be removed to an area Service Center or staging area collection bin for transport with other materials for disposal at a licensed Class I or Class II landfill or a composite lined portion of a solid waste landfill. Total solid waste generated by construction of the proposed project is anticipated to be minor compared to the capacity of local infrastructure and existing landfills, as identified in Table 5.19-2, Landfill Capacities. The landfills identified in Table 5.19-2 are not expected to close for about another 20 years. During operation, the proposed project components would be unmanned and would not generate notable quantities of solid waste. Therefore, the impact of solid waste disposal on local infrastructure and landfill capacity would be less than significant.

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

NO IMPACT. The California Integrated Waste Management Act of 1989, which emphasizes resource conservation through the reduction, recycling, and reuse of solid waste guide solid waste management requires that localities conduct a Solid Waste Generation Study (SWGS) and develop a Source Reduction Recycling Element (SRRE). The proposed project would operate in accordance with these applicable Solid Waste Management Policy Plans by including recycling where feasible. As identified in Item (f) above, the landfills serving the site would have sufficient capacity to accommodate project construction solid waste disposal needs, and project solid waste disposal would not require the need for new or expanded landfill facilities. Therefore, the proposed project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste disposal limits and landfill capacities. No impact would occur.

5.20 Wildfire

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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

5.20.1 Setting

Wildland fire protection in California is the responsibility of the State, local, or federal government, depending on the location. The California Department of Forestry and Fire Protection (CAL FIRE) is required by law to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, which are referred to as Fire Hazard Severity Zones (FHSZ), influence how people construct buildings and protect property to reduce risk associated with wildland fires. FHSZ maps identify the likelihood that an area will burn over a 30 to 50-year period without considering that modifications may occur, such as fuel reduction efforts. Risk is not indicated by the maps. Risk is the potential damage that can be done by a fire, based on existing conditions. Risk can be reduced by various strategies, such as creation of defensible space, fuel load reduction, and, in the case of structures, the use of sprinklers and ignition-resistant building materials and construction. The City of Santa Clara area is not located in a FHSZ in the CAL FIRE wildland fire hazard maps, namely due to its urban conditions, flat terrain and low fuel load (CAL FIRE, 2007). Fire protection within the City is discussed in Section 5.15 (Public Services).

Regulatory Background

Federal

A variety of line and tower clearance standards are used throughout the electric transmission industry. Nationally, most transmission line owners follow the National Electric Safety Code (NESC) rules or American National Standards Institute (ANSI) guidelines, or both, when managing vegetation around transmission system equipment. The NESC deals with electric safety rules, including transmission wire clearance standards, whereas the applicable ANSI code deals with the practice of pruning and removal of vegetation.

State and Local

California Public Utilities Commission (CPUC) General Order (GO) 95. CPUC’s GO 95 is the key standard governing the design, construction, operation, and maintenance of overhead electric lines in the State. The CPUC has promulgated various Rules to implement the fire safety requirements of General Order 95, including:

- *GO 95 Rule 31.2* requires that lines be inspected frequently and thoroughly to ensure that they are in good condition, and that lines temporarily out of service be inspected and maintained in such condition so as not to create a hazard.
- *GO 95 Rule 35* governs requirements that vegetation management activities be performed in order to establish necessary and reasonable clearances.
- *GO 95 Rule 38* establishes minimum vertical, horizontal, and radial clearances of wires from other wires.

California Public Resources Code Sections 4294 and 4293. The California Public Resources Code (CPRC) Sections 4292 and 4293 specify requirements related to fire protection and prevention in transmission line corridors. CPRC Section 4292 states that any person that owns, controls, operates, or maintains any electrical transmission or distribution line has primary responsibility for fire protection of such areas, and shall maintain around and adjacent to any pole or tower which supports a switch, fuse, transformer, lightning 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 (CPRC 4292).

Power Line Fire Prevention Field Guide 2008 Edition. CAL FIRE, the state’s three investor-owned utilities (Pacific Gas and Electric [PG&E] Company, Southern California Edison Company, and San Diego Gas and Electric), and other California electric utilities have mutually developed a comprehensive field guide for their personnel. Its purpose is “to provide information and guidance to the personnel of the fire service agencies and electrical operators for minimum uniform application within the areas of their respective jurisdiction and franchise responsibilities.” In addition to safety of the public, the guide details fire hazard reduction maintenance procedures for the safety of conductors and certain hardware.

PG&E's Public Safety Power Shutoff Program. The Public Safety Power Shutoff program was developed in cooperation with state utility regulators at the CPUC. A utility shuts off electricity on transmission and distribution lines in fire-prone areas during high fire-risk periods, including:

- Red flag warning declared by the National Weather Service;
- Low humidity levels – generally 20% and below; and/or
- Forecasted sustained winds generally above 25 mph and wind gusts in excess of approximately 45 mph.

SVP operates and maintains the distribution and transmission grid inside the City of Santa Clara, yet the larger transmission grid that brings most of SVP’s energy into the City is integrated throughout the State. Therefore, if large transmission lines are de-energized or constrained, then SVP may need to reduce load quickly to help the greater transmission grid. Depending on the severity of the event, it may mean power shutoffs or rolling outages in the City of Santa Clara.

5.20.2 Environmental Impacts and Mitigation Measures

a. *Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

LESS THAN SIGNIFICANT WITH MITIGATION- CONSTRUCTION. The project does not cross over or is not near any roads in the very high FHSZ nor is it within the evacuation routes. The project may require brief temporary

lane closures/disruptions, during which SVP would implement traffic control protocols and a project-specific traffic plan under Mitigation Measure T-1 (Construction Traffic Control Plan) to ensure that traffic flow would not be impacted. With incorporation of mitigation, impacts from project construction would not substantially impact emergency response or evacuation plans.

NO IMPACT – OPERATIONS AND MAINTENANCE. Once operational, the proposed project would have minimal impact on emergency response or evacuation. Occasional maintenance activities would be short-term in duration throughout the project area. While temporary lane closures are not anticipated, occasionally maintenance vehicles or equipment may be temporarily present alongside the roadways depending on structure locations. However, at least one lane of travel would remain open at all times and any closure or disruption would be a limited duration (likely less than one day). Therefore, maintenance of the proposed project would not substantially impair an emergency response plan or emergency evacuation plan.

Mitigation Measures for Emergency Response

MM T-1 Construction Traffic Control Plan. [see full text in Section 5.17, Transportation/Traffic]

b. 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?

LESS THAN SIGNIFICANT - CONSTRUCTION. The project would not result in any occupied facilities. However, there are residences in the project vicinity located west of Lafayette Street at its intersection with Memorex Drive, on the opposite side of the Lafayette Street and just over 100 feet from the proposed transmission line route. Therefore, the following analysis focuses on the potential for Project construction and operation to increase the exposure of residences to wildfire risks.

During construction, project-related activities have the potential to be an ignition source for a fire. Examples of ignition sources include sparks from welding or from metal striking metal or stone igniting surrounding vegetation and improperly discarded smoking materials. To reduce the fire risk, SVP would implement its standard fire prevention protocols. In addition, the proposed project is located in a flat, urban environment with lack of extensive vegetation, and construction activities would occur over a limited duration (6 months). Furthermore, the City of Santa Clara area is not located in a FHSZ in the CAL FIRE wildland fire hazard maps (CAL FIRE, 2007). Impacts from wildfire risk during construction would be less than significant and no mitigation is required.

LESS THAN SIGNIFICANT – OPERATIONS AND MAINTENANCE. Electrical lines can start a fire if an object such as a tree limb, kite, or mylar balloon simultaneously contacts the power line conductors and a second object, such as the ground or a portion of the supporting pole. System component failures and accidents during maintenance activities can also cause line faults that result in arcing on power lines. Power lines are also subject to conductor-to-conductor contact, which can occur when extremely high winds force two conductors on a single pole to oscillate so excessively that they contact one another. This contact can result in arcing (sparks) that could ignite nearby vegetation. Aging, failing equipment increases the risk of system failures and faults.

The project would update and install new electrical line equipment, reducing the risk of a system failure or line fault due to aging equipment. While the proposed project would result in additional overhead electrical lines, the increase in risk of ignition associated with the additional line would be minimal relative to baseline conditions and the project is not located in an area of high wildfire risk. Operation and maintenance activities would be incorporated into SVP's existing O&M schedule for the existing transmission lines, substations, and associated facilities. As with current operations and maintenance, SVP

would comply with all current federal and State laws related to vegetation clearance and fire prevention, as not to exacerbate wildfire risks. Impacts from wildfire risk during operations and maintenance would be less than significant and no mitigation is required.

c. 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?

LESS THAN SIGNIFICANT. The proposed project includes construction of a new and reconducted transmission line. Most activities associated with the proposed project would occur along existing transmission line ROWs in an urban area and would rely primarily on existing paved roads for access. No fuel breaks or emergency water sources would be required. None of the new or reconducted transmission lines would be within any wildfire risk area.

Operation and maintenance activities would be incorporated into the existing O&M schedule for the existing transmission lines, substations, and associated facilities. As with current operations and maintenance, SVP would comply with all current federal and State laws related to vegetation clearance and fire prevention. No additional infrastructure that has not been considered would be installed, and no additional fire risk impacts would occur because of operating and maintaining the project.

d. 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?

LESS THAN SIGNIFICANT. The project would not have any occupants and thus could not expose residents to increased fire risk. The proposed project is located in an urban area with flat topography and low fuel load. During construction, there would be ground disturbance at the structure locations and the proposed project would use up to two staging areas, each approximately one acre, in areas that are already disturbed. No trenching or extensive grading or new impervious surfaces would be required for construction of the proposed project. As with current operations and maintenance, SVP would comply with all current regulations related to vegetation clearance and fire prevention. Given the low fire risk in a flat area with no known historic landslides or slope instability and the limited amount of surface disturbance proposed, the exposure of people or structures to risks as a result of runoff, post fire instability or drainage changes would be less than significant.

5.21 Corona and Induced Current Effects

5.21.1 Environmental Setting

Corona

Corona is one of the phenomena associated with all energized electrical devices, including high voltage transmission lines. The localized electric field near a conductor can be sufficiently concentrated to ionize air close to the conductors. This can result in a partial discharge of electrical energy called a corona discharge, or corona. The corona effect is the physical manifestation of discharged electrical energy into very small amounts of sound, radio noise, heat, and chemical reactions with air components. It is a phenomenon associated with all energized electrical devices but is especially common with high-voltage power lines.

The amount of corona produced by a power line is a function of several factors, including line voltage, conductor diameter, conductor locations in relation to each other, condition of conductors and hardware, and local weather conditions including power line elevation above sea level. Corona typically becomes a design concern for 230 kV and higher power lines that are overhead (i.e., transmission lines on poles or towers). It is less noticeable for lines that are operated at lower voltages (i.e., subtransmission and distribution-sized lines). The electric field gradient is greatest at the conductor surface. Larger-diameter conductors have lower electric field gradients at the conductor surface and, therefore, lower corona noise than smaller-diameter conductors. The corona effect would not be a design concern for underground portions of power lines, regardless of voltage level, because the energized conductors are fully enclosed in a semi-conducting layer within insulated cables that serve to equalize the electrical gradient at the surface of the components.

Induced Currents

Electric currents can be induced in metallic objects located within the electric fields created by power lines. An electric current can flow when an object has an induced charge and a path to ground is present. The amount of induced current that can flow is important to evaluate from a safety perspective because of the potential for electrical shocks to people and the possibility of electric arcs that could form across small gaps between conductive surfaces. These arcs can have the secondary effect of igniting flammable materials in the vicinity of the arc. In addition, induced currents are evaluated for their potential to lead to corrosion of metallic objects from the discharge of the induced current to ground.

From a safety perspective, the National Electrical Safety Code (NESC) specifies that transmission lines be designed to limit short circuit current from vehicles or large objects near the line to no more than 5 milliamperes (mA). The NESC also addresses shock hazards to the public by providing guidelines on minimum clearances to be maintained for practical safeguarding of persons during the installation, operation, or maintenance of overhead transmission lines and their associated equipment.

5.21.2 Environmental Impacts and Assessment

Concerns about project interference with existing businesses and future development in the area were raised during scoping. The CEQA Guidelines do not provide significance criteria for evaluating impacts from corona or induced current effects. Corona and induced current from high voltage power lines can cause environmental impacts through:

- Audible noise
- Radio and television interference
- Computer interference

- Disturbance of cardiac pacemakers
- Ignition of flammable materials
- Corrosion of buried metallic objects

The proposed project involves construction of a new 60 kV transmission line, replacement of existing distribution power lines and/or telecommunication lines for some segments of the new 60 kV transmission line, and minor modifications at 5 existing substations affected by the Project. The audible corona noise level caused by the 60 kV power line was not quantified. However, circuits operating at 60 kV typically cause noise at levels comparable to the ambient baseline noise levels, as noted in Section 5.12 (Noise). At this level, the impact of audible noise from the corona effect would be less than significant.

Although corona can generate high frequency energy that may interfere with broadcast signals or electronic equipment, this is generally not a problem for transmission or lower voltage power lines. The Institute of Electrical and Electronic Engineers (IEEE) has published a design guide (IEEE, 1971) that is used to limit conductor surface gradients so as to avoid corona levels that would cause electronic interference. Corona or gap discharges related to high frequency radio and television interference impacts are dependent upon several factors, including the strength of broadcast signals, and are anticipated to be very localized if they occur. Individual sources of adverse radio/television interference impacts can be located and corrected on the power lines. Conversely, magnetic field interference with electronic equipment such as computer monitors can be corrected through the use of software, shielding or changes at the monitor location. As a result, impacts from corona, radio/television interference, and magnetic field interference would be less than significant.

Induced currents and voltages on conducting objects near the proposed power lines would not pose a threat in the environment if the conducting objects are properly grounded. Project construction and operation would be done in accordance with SVP's existing inspection and maintenance program and safety practices. Likewise, induced currents would not increase the risk of fuel ignition in the area.

The electric fields associated with high voltage transmission lines may be of sufficient magnitude to impact operation of a few older model pacemakers resulting in them reverting to an asynchronous pacing (IEEE, 1979). Substantial adverse effects would not occur with prolonged asynchronous pacing; periods of operation in this mode are commonly induced by cardiologists to check pacemaker performance. Therefore, while the transmission line's electric field may impact operation of some older model pacemakers, the result of the interference would be of short duration and is not considered significant or harmful. No mitigation measures would be required or recommended.

5.22 Mandatory Findings of Significance

MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a. Does 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Does the project have impacts that are individually limited, but cumulatively considerable? (<i>Cumulatively considerable</i> 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.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Does the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

- a. Does 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 WITH MITIGATION INCORPORATED. The proposed project would be located in the north-east area of the City of Santa Clara in an area zoned for light industrial and heavy industrial uses. This area has sparse vegetation, mainly some landscaped areas and some highly disturbed non-native grassland strips where the proposed project route follows roadways. As described in Section 5.4, Biological Resources, there are no special-status plants or animals in the project area due to the lack of habitat in such a highly urbanized industrial environment. The project is not expected to result in impacts to habitats that support sensitive species. However, some special-status birds may use the Project site for foraging, although the habitat is marginal and the potential for occurrence of these species is very low. In addition, many trees, including trees that qualify as “protected trees” under the City of Santa Clara General Plan, along the new transmission line corridors will need to be pruned to create minimum clearance distances around new poles and transmission lines or cut to permit pole installation. Implementation of Mitigation Measures BIO-1 through BIO-5 would reduce these potential impacts to less than significant levels.

Similarly, Section 5.5 (Cultural Resources) and Section 5.17 (Tribal Cultural Resources) show that the project would have a less than significant impact to important examples of the major periods of California history or prehistory. The records search indicates that no prehistoric cultural resources have been previously identified in the project area. However, as described in Section 5.5 (Cultural Resources) and Section 5.17 (Tribal Cultural Resources), the proposed project could have an adverse effect on previously undiscovered cultural or tribal cultural resources. With implementation of Mitigation Measures CR-1, CR-2, CR-3 and TCR-1, impacts to unanticipated discoveries of archaeological, historical or paleontological resources or

human remains would be less than significant and the project would not eliminate important examples of major periods of California history or prehistory.

b. Does 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, effects of other current projects, and the effects of probable future projects.)

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. CEQA defines a cumulative impact as an effect that is created as a result of the combination of the proposed project together with other projects (past, present, or future) causing related impacts. Cumulative impacts of a project need to be evaluated when the project’s incremental effect is cumulatively considerable and, therefore, potentially significant.

A list of cumulative projects used for this analysis is provided in Table 5.22-1, Planned and Current Projects in the Vicinity of the Proposed Project. The list includes projects in the project area in the City of Santa Clara. The projects were reviewed to identify whether the proposed project could contribute to cumulatively significant impacts when evaluated in combination with other projects. The projects listed are located a mile or less from the proposed project route and are either approved, under construction, or under review by the City of Santa Clara or another lead agency, as posted to the California Governor’s Office of Planning and Research (CEQAnet, 2019). Current and/or probable projects near staging yards for the proposed project were not analyzed for cumulative effects due to the minimal impacts from the loading and unloading activities that would occur should these sites be used by SVP and the unlikely event that these sites are used at all.

Table 5.22-1. Planned and Current Projects in the Vicinity of the Proposed Project

Project Name	Address	Proximity to Transmission Line Route (approx.)	Type of Development	Description	Size (approx.)	Status*	Occupancy Date
1525 Alviso St. Residential Project	1525 Alviso St.	0.5 miles	Residential	40-unit 3-story townhouse-style development	2.09 acres	A	2018-2019
1890 El Camino Real Residential Project	1890 El Camino Real	0.9 miles	Residential	58 condominium units	1.51 acres	A	2018-2019
967 Warburton Avenue Residential Project	967 Warburton Avenue	0.4 miles	Residential	4 detached two-story residences	0.48 acres	U	2018
Camino Main Place	1480 Main St.	0.7 miles	Mixed use	Medical office building	0.34 acres	U	May 2017
Lawson Lane Office Campus (Sobrato)	2215 and 2225 Lawson Lane	0.6 miles	Nonresidential	5-story office buildings, 2-story commons buildings, and 4-level parking garages	16.4 acres	U	Phase 1: 2013 Phase 2: Unknown
NVIDIA	2600, 2800 San Tomas Expressway 2400 Condensa St.	0.7 miles	Nonresidential	Office campus development project	35.6 acres	U	Unknown
SV1 Data Center	1150 Walsh Ave	< 0.1 miles	Industrial	Data Center with backup capacity, up to 27 MW	3.32 acres	A	Unknown

Table 5.22-1. Planned and Current Projects in the Vicinity of the Proposed Project

Project Name	Address	Proximity to Transmission Line Route (approx.)	Type of Development	Description	Size (approx.)	Status*	Occupancy Date
McLaren Backup Generating Facility (Vantage)	651, 725, and 825 Mathew Street	< 0.1 miles	Industrial	Data center with backup capacity, up to 99 MW	8.97 acres	Small Power Plant Exemption granted by CEC	Unknown
Laurelwood Data Center	2201 Laurelwood Rd	1.0 miles	Industrial	Data center with backup capacity, up to 99 MW	12 acres	CEC published Initial Study	Unknown
Walsh Data Center	651 Walsh Ave	0.2 miles	Industrial	Data center with backup capacity, up to 80 MW	7.87 acres	Application filed with CEC	Unknown
Sequoia Data Center	2600 De La Cruz Boulevard	< 0.1 miles	Industrial	Data center with backup capacity, up to 96.5 MW	15 acres	Application filed with CEC	Unknown

Source: City of Santa Clara, 2018; CEQAnet, 2019.

* Status: A = The project is approved; U = The project is under construction. No projects were identified as pending in the formal application review process.

As discussed in preceding Sections 5.1 through 5.19, any potential impacts of the proposed project would occur during construction, with few, if any, operational effects. Because the construction-related impacts of the Project would be temporary and localized, they would have the potential to combine with similar impacts of other projects only if they occur at the same time and in close proximity to the proposed project site. The construction of some of the projects listed in Table 5.22-1 are likely to overlap with that of the new 60 kV transmission line at some point during its construction. The cumulative temporary and localized impacts of the construction of the proposed project are considered by issue area below. There would be no long-term impacts from the proposed project that would have the potential to combine with impacts from the projects listed in Table 5.22-1, Planned and Current Projects in the Vicinity of the Proposed Project.

Aesthetics. As described in Section 5.1, the viewshed of the proposed project is an urban setting and electric distribution and infrastructure are prominent elements of the existing landscape. The setting has a history of development and continued urbanization is the likely trend for the foreseeable future with little change in its overall visual character. The impacts from the construction of the transmission line would be minimal because the work would be temporary in nature. Construction and operation of the transmission line would not require lighting. Other projects in the region are contributing to increased development and urbanization in the City of Santa Clara, including potentially increased lighting; however, the proposed project would not contribute any visual change associated with such land use changes in this area. While the incremental change in visual conditions associated with the proposed project would contribute to a cumulative change in visual conditions, the proposed project represents only a relatively minor incremental change in cumulative conditions given the existing industrial and urban nature of the location. Therefore, the Project’s visual effects are less than significant and are not considerable enough to represent a significant cumulative impact.

Agriculture and Forestry Resources. There is no agricultural activity at the site and it is not zoned for agricultural uses by the City of Santa Clara, nor is there agricultural activity in the vicinity of the site. The proposed project site is not in an area designated as “good” or “fair” for farming and is zoned for light

industrial and heavy industrial uses. Neither the proposed project nor any of the cumulative projects would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. The Project would not contribute to cumulative impacts to agriculture and forestry resources.

Air Quality. Air emissions would result from construction of the new 60 kV transmission line. Emissions during the construction phase would include criteria air pollutants that could contribute to existing or projected violations of the ambient air quality standards for ozone and PM₁₀. Other pollutants resulting from construction activities are accounted for in emissions inventories for regional air quality maintenance plans and would not impede attainment or maintenance of ozone or carbon monoxide (CO) standards. Foundation excavation and other construction-related activities could potentially expose sensitive receptors to construction-related emissions, including emissions of fugitive dust, DPM, and other toxic air contaminants, which would expose the receptors to increased health risk and hazards. These would occur only during construction and would be less than significant with implementation of Mitigation Measure AQ-1 (Implement Basic Construction Air Quality Mitigation). Any potential adverse cumulative air quality impacts would be short-term (lasting for the duration of construction) and would not be cumulatively considerable; therefore, the cumulative impact would be less than significant. The operation and maintenance emissions (e.g., limited vehicle use) would be less than the emissions during construction activities and also less than the significance thresholds.

Concurrent construction of other projects in close proximity to the proposed project would result in increased local air quality impacts for the duration of simultaneous construction activities. However, simultaneous construction projects would also need to comply with BAAQMD rules and regulations regarding criteria pollutants. Any potential adverse cumulative air quality impacts would be short-term (lasting for the duration of construction) and would not be cumulatively considerable; therefore, the cumulative impact would be less than significant.

Biological Resources. The proposed project and the cumulative projects are located within an urbanized area and adjacent to busy roadways. Due to the highly disturbed landscape, no habitat for special-status plant or wildlife species remains on the proposed project site. Therefore, construction and operation and maintenance of the proposed project would have no impacts to special-status plants or their habitat. The disturbed habitat conditions in the northeast area of the City of Santa Clara have limited wildlife habitat value. Some special-status birds may use the project site for foraging, but the habitat is marginal and the potential for occurrence of these species is very low. As required by the City, specified trees that are proposed to be removed as part of the project would be replaced. The project would not represent a significant contribution to cumulative impacts. Impacts to biological resources during operation and maintenance would be the same as those during current operation and maintenance practices; therefore, no contribution to cumulative impacts would occur.

Cultural Resources. There are no known historical or unique archaeological resources identified within the proposed project area; however, previously unknown buried historical resources or human remains could be discovered and damaged, or destroyed, during ground disturbing work. Short-term construction activities and operation and maintenance activities would not significantly affect any unknown cultural or paleontological resources or human remains with the implementation of Mitigation Measures CR-1 (Worker Training and Management of Unanticipated Discoveries of Historical Resources, Unique Archaeological Resources), CR-2 (Worker Training and Management of Unanticipated Discoveries of Paleontological Resources) and CR-3 (Treatment of Human Remains), as discussed in Section 5.5, Cultural Resources. No cultural resources would be affected during project construction or during operation of the project, and no contribution to cumulative impacts would occur.

Geology and Soils. As discussed in Section 5.6, the proposed project would be located in an area mapped as likely to experience strong ground shaking, including ground shaking that could result in liquefaction-related phenomena and erosion. Projects included in Table 5.22-1, Planned and Current Projects in the Vicinity of the Proposed Project, would also be located in areas mapped as likely to experience strong ground shaking potentially combining to expose people or structures to potential significant cumulative impacts. With implementation of Mitigation Measure G-1 (Conduct Geotechnical Investigations for Liquefaction), which would ensure that project design would reduce the potential for liquefaction to affect the new poles, the Project would not increase potential risks associated with seismic events or other geologic hazards. Short-term construction impacts to soils, including unstable soils, have the potential to occur; however, final geotechnical recommendations would reduce the impacts to a less than significant level and the proposed project impacts are not considerable enough to represent a significant cumulative impact. Adherence to similar design and engineering standards, which are applicable to all of the projects listed in Table 5.22-1, ensure that their cumulative impacts to geology and soils would also be less than significant.

Greenhouse Gas Emissions. Greenhouse gas (GHG) emissions would result from the burning of fuel required to operate construction equipment and vehicle use during construction activities. Primary GHG emissions during construction are associated with CO₂ from the combustion of gasoline and diesel fuel in equipment and vehicles. CH₄ and N₂O are also emitted from fuel combustion but at rates of less than 1 percent of the mass of CO₂ combustion emissions. Construction-related emissions would be distributed over 6 months. These estimated levels would not exceed the threshold level of 25,000 metric tons per year for annual mandatory reporting of GHGs. Any potential adverse GHG impacts would be short-term and not cumulatively considerable; therefore, GHG emissions during construction would have a less than significant cumulative impact.

GHG emissions from operation and maintenance would be minimal, as the power lines would require only infrequent maintenance. The small amount of emissions created during construction and operation and maintenance would result in a relatively minor incremental change in cumulative conditions and would not significantly contribute to cumulative impacts.

Hazards and Hazardous Materials. The use of hazardous materials for the project would be minimal during construction and operation. Hazardous materials would be stored and used in compliance with applicable regulations. The project would not result in an increase in usage of hazardous materials. Impacts from routine use, transportation, disposal, and accidental spillage of hazardous materials would be reduced to a less than significant level with implementation of MM HM-1 (Hazardous Substance Control and Emergency Response) discussed in Section 5.8, Hazards and Hazardous Materials; no contribution to cumulative impacts would occur.

Hydrology and Water Quality. The project would not change existing drainage patterns at the site, which is largely developed and adjacent to existing sidewalks and roadways. The proposed project would require minimal water for dust control and foundation slurry during construction. Dewatering during foundation excavation is possible, but not anticipated. In the event that dewatering is necessary, the water would be pumped out and treated and encountered groundwater would be tested to meet requirements set by the Regional Water Quality Control Board (RWQCB). Implementation of MM HYD-1 (SWPPP or Erosion Control Plan Development and Implementation) and MM HM-1 (Hazardous Substance Control and Emergency Response) would ensure that erosion, sedimentation, or an accidently spill would not significantly affect water quality. With implementation of this mitigation, the Project's hydrology and water quality impacts are less than significant and are not considerable enough to represent a significant cumulative impact.

Land Use. The proposed project is consistent with local zoning. Currently, the site is located on disturbed land, which consists of nonnative vegetation and soils characterized by physical disturbance. The current zoning of the proposed project area and adjacent areas include light industrial and heavy industrial. In addition, the proposed project, as well as the projects listed in Table 5.22-1, Planned and Current Projects in the Vicinity of the Proposed Project, are required to minimize any impacts to state and federally listed species and/or habitats through compliance with CEQA, the federal ESA, the CESA, and/or applicable local habitat conservation plans. The project would, therefore, not conflict with applicable land use policies and regulations and would not contribute to cumulative impacts to land use.

Mineral Resources. No commercial mineral resources are known to exist within the proposed project area nor within the vicinity of the site. Therefore, the proposed project would not result in the loss of availability of a known mineral resource. The project would not contribute to potential cumulative impacts that may result in the loss of mineral resources.

Noise. The proposed project is not expected to contribute to a long-term cumulative impact on ambient noise levels in the proposed project area, which is primarily industrial and is nearby to the City of San Jose International Airport. Noise from construction activities would be audible to nearby businesses and possibly some residences near the intersection of Mathew and Lafayette Streets, but most construction would be limited to daytime hours and would be short-term. Impacts from noise to nearby sensitive receptors (e.g., residences) would be less than significant through compliance with applicable noise codes. It is assumed that the projects listed in Table 5.22-1, Planned and Current Projects in the Vicinity of the Proposed Project, would also be constructed during daytime construction timeframes. There would be a limited potential for the projects listed in Table 5.22-1 to have overlapping construction schedules for an extended duration that could result in substantial levels of combined construction noise. These projects are therefore not likely to combine with noise generated from the construction of the proposed project to create significant adverse effects since noise reduces rapidly with distance.

Population and Housing. The proposed project would not result in impacts to population and housing. During its construction, the Project would provide short-term jobs for a small workforce. Construction workers would be existing local SVP staff or contracted workers from the region. These jobs are not anticipated to result in workers relocating to the area. The Project would not displace any existing housing or people. The proposed project, combined with those from the projects listed in Table 5.22-1, Planned and Current Projects in the Vicinity of the Proposed Project, will have the potential to increase the population in the area due to increased job or housing opportunities. The proposed project itself can facilitate future planned growth by ensuring a reliable transmission system to the area. While the development of these properties may induce some population growth, this has already been accounted for through the General Plan for the City of Santa Clara. The new 60 kV transmission line is proposed to increase system reliability and to serve planned growth in the area. The Project's population and housing impacts would be less than significant and are not considerable enough to represent a significant cumulative impact.

Public Services. The proposed project would not require the cessation or interruption of fire or police protection services, schools, access to public parks, or other public facilities; nor would it require the construction of new public service facilities. The completion of the projects listed in Table 5.22-1, (Planned and Current Projects in the Vicinity of the Proposed Project, in particular the proposed the residential developments, may have the potential to also increase the demand for public services and public facilities, including schools, parks, and fire and police protection. However, impacts from the proposed project on public services would be incremental and would not contribute to a cumulatively significant impact.

Recreation. Although some workers may use nearby park facilities during project construction, increased use would be minimal and temporary and would not contribute substantially to the physical deterioration

of existing facilities. The projects from Table 5.22-1, Planned and Current Projects in the Vicinity of the Proposed Project, also have the potential to add users to park facilities, but the increased use would also be minimal and, in most cases, temporary. The project would have less than significant effects on recreation and would not contribute to cumulative effects associated with other projects.

Transportation and Traffic. Construction of the proposed project would have the potential for temporary impacts to traffic volumes, level-of-service standards, road hazards, and emergency access. Use of local roads for transport of construction equipment and construction personnel would increase traffic slightly but would be temporary and short-term and would not exceed existing capacities. The installation of the new 60 kV transmission line would require temporary lane closures. Impacts due to traffic and temporary lane closures as a result of the construction of the proposed project would be reduced to a less than significant level with implementation of Mitigation Measure T-1 (Construction Traffic Control Plan) discussed in Section 5.16, Transportation and Traffic. Impacts from the proposed project, combined with construction of the projects listed in Table 5.22-1, Planned and Current Projects in the Vicinity of the Proposed Project, would have the potential to cumulatively impact transportation and traffic in the surrounding area; however, the construction schedules of the projects listed in Table 5.22-1 and that of the proposed project would be variable. The potential for the planned and current projects in the proposed project's vicinity to require lane closures simultaneously would be limited in duration and location. Adherence to the Mitigation Measure T-1 will ensure that the proposed project's cumulative impacts to traffic and transportation would be incremental, short-term, and less than significant.

Tribal Cultural Resources. There are no known Tribal Cultural Resources (TCRs) listed in, or are known to be eligible for listing in, the California Register of Historical Resources (CRHR) or local register of historical resources within the proposed project or the 0.25-mile surrounding area. In addition, Native American tribes did not request to be notified of projects pursuant to AB 52, and thus did not participate in government-to-government consultation to identify TCRs present. However, it is possible that previously unidentified TCRs that may be eligible for inclusion in the CRHR or local registers could be discovered and damaged, or destroyed, during ground disturbance, which would constitute a significant impact absent mitigation. Implementation of Mitigation Measure TCR-1 (Management of Unanticipated Tribal Cultural Resources), discussed in Section 5.17 (Tribal Cultural Resources), would ensure evaluation and protection of unanticipated TCR discoveries. Adherence to MM TCR-1 would ensure that no tribal cultural resources would be affected during project construction or during operation of the project, and no contribution to cumulative impacts would occur.

Utilities and Service Systems. The construction of the proposed project would temporarily require a minimal water supply and would potentially generate wastewater that would be appropriately treated. Construction would require the disposal of a less than significant amount of all types of waste. No expanded facilities or services would be needed for the project, and use and disposal of all water and waste products would comply with all applicable laws and regulations. Operation and maintenance of the new 60 kV transmission line would not require any water consumption. Therefore, a less than significant contribution to cumulative impacts to utilities and service systems would occur.

Corona and Induced Current Effects. No other planned or current project in the vicinity of the proposed project, besides the proposed project, will result in corona or induced current effects due to the nature of the purpose and design of those projects. The proposed project will not contribute to a cumulative impact to corona and induced current effects.

c. Does the project have environmental effects, which would cause substantial adverse effects on human beings, either directly or indirectly?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. The proposed project would not substantially adversely affect human beings directly or indirectly. The Initial Study identified no environmental effects that would cause substantial adverse effects on human beings. Adverse effects would be mitigated by implementation of mitigation measures and, in most instances, would be related to short-term construction impacts. Each type of impact with the potential to cause substantial adverse effects on human beings has been evaluated, and this Initial Study concludes that all of these potential impacts are either less than significant or can be mitigated to a less than significant level with the implementation of measures presented herein (see also Section 6, Mitigation Monitoring Plan, for a complete listing of the mitigation measures). Therefore, the proposed project does not involve any activities, either during construction or operation, which would cause significant adverse effects on human beings that cannot be readily mitigated to a less than significant level. The proposed operation and maintenance activities would be the same as current operation and maintenance practices of similar lines in the area which have minimal impacts on human beings. The potential beneficial effects of the project include improving the reliability and capacity of the existing transmission system in the City of Santa Clara.

6. Mitigation Monitoring and Reporting Program

SVP proposes to construct and operate the South Loop Reconfigure Project (“proposed project”). An Initial Study was prepared to assess the proposed project’s potential environmental effects. The Initial Study was prepared based on information from SVP, project site visits, scoping comments, and supplemental research. The majority of the proposed project’s impacts would occur during project construction.

This Mitigation Monitoring and Reporting Program (MMRP) will be used by the City of Santa Clara and SVP to ensure that each mitigation measure, adopted as a condition of project approval, is implemented. The MMRP is consistent with CEQA Guidelines (Sections 15074(d), 15091(d), and 15097) for the implementation of mitigation.

SVP will be responsible for monitoring the implementation of the mitigation measures presented in Table 6-1). SVP will designate specific personnel to implement and document all aspects of the MMRP. SVP will ensure that the designated personnel have authority to enforce mitigation requirements and will be capable of terminating project construction activities found to be inconsistent with mitigation objectives. Additionally, SVP will be responsible for ensuring that construction personnel understand their responsibilities for adhering to the MMRP and other contractual requirements related to the implementation of mitigation.

Table 6-1. Mitigation Monitoring Plan

Impact Category	Mitigation Measure	Monitoring Requirement	Timing of Action
Air Quality			
Construction-Phase Air Quality	<p>AQ-1: Implement Basic Construction Air Quality Mitigation. The project shall ensure that basic construction emissions control measures are implemented as “Best Management Practices,” as follows:</p> <ul style="list-style-type: none"> ▪ All exposed soil surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. ▪ All haul trucks transporting soil, sand, or other loose material off-site shall be covered. ▪ All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. ▪ All vehicle speeds on unpaved roads shall be limited to 15 mph. ▪ All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. ▪ Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. ▪ All construction equipment shall be maintained and properly tuned in accordance with manufacturer’s specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. ▪ Post a publicly visible sign with the telephone number and person to contact at SVP regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD’s phone number shall also be visible to ensure compliance with applicable regulations. 	Emissions from construction equipment exhaust are reduced	During construction
Biological Resources			
Nesting Birds	<p>MM BIO-1: Biological Monitoring. A qualified biologist will be assigned to the project and will monitor the project periodically. The qualified biologist will be the point of contact for any employee or contractor who might inadvertently kill or injure a special-status species or anyone who finds a dead, injured, or entrapped individual. The qualified biologist or biological monitor shall have the authority and responsibility to halt any project activities that are not in compliance with applicable mitigation measures, APMs, permit conditions, or other project requirements, or will have an unauthorized adverse effect on biological resources.</p>	Monitor implementation of specified biological monitor activities	Prior to and during construction

Table 6-1. Mitigation Monitoring Plan

Impact Category	Mitigation Measure	Monitoring Requirement	Timing of Action
Nesting Birds	MM BIO-2: Worker Environmental Awareness Training. Prior to construction, a construction employee education program will be conducted in reference to all sensitive environmental resources potentially onsite (e.g., air quality, biological resources, cultural resources, hydrology and water quality, hazardous materials) and the measures associated with their protection (i.e., MMs and applicable laws and regulations).	Review and attend construction employee education program and monitor training implementation	Prior to construction
Nesting Birds	MM BIO-3: Preconstruction Nesting Bird Surveys. Preconstruction nesting bird surveys shall be conducted by a qualified biologist in the project area no more than 7 days before any work activities are performed during the nesting season (February 1 to August 31). Preconstruction nesting bird surveys are also required prior to any vegetation removals or trimming during the nesting season. Surveyors will search for all potential nest types (e.g. ground, cavity, shrub/tree, structural, etc.) and determine whether the nest is active. A nest will be determined to be active if eggs or young are present in the nest. Upon discovery of active nests, appropriate impact minimization measures (e.g., buffers or shielding) will be determined and approved by the biologist. Silicon Valley Power’s biological monitor will determine the use of a buffer or shield and work may proceed based upon: acclimation of the species or individual to disturbance, nest type (cavity, tree, ground, etc.), and level and duration of construction activity. In the unlikely event a special-status or listed species is found nesting nearby in this urban environment, CDFW and USFWS will be notified and the City of Santa Clara will be provided with nest survey results, if requested. When active nests are identified, monitoring for significant disturbance to the birds will be implemented.	Ensure preconstruction bird nesting surveys are conducted and monitor for significant disturbance to birds if nests are identified	No more than 7 days before planned construction work
Tree Protection and Preservation	MM BIO-4: Tree Protection Plan. A Tree Protection Plan will be developed by the project arborist and the plan shall be implemented prior to the commencement of any construction activities. The Tree Protection Plan may include, but is not limited to, designation of tree protection zones within which specific construction activities are prohibited; tree protection fencing; special requirements where grading, or vehicle traffic is necessary within a tree protection zone; and/or construction monitoring.	Ensure a Tree Protection Plan is developed and implemented	Prior to construction
Tree Protection and Preservation	MM BIO-5: Tree Replacement Plan. A Tree Replacement Plan will be developed by the project arborist and submitted to the City Arborist and the Director of Community Development for review and approval. Silicon Valley Power will implement one or more of the following measures: ▪ Trees will be replaced as defined by General Plan Policy 5.3.1-P10 and 5.10.1-P4 and to the satisfaction of the City Arborist.	Ensure a Tree Replacement Plan is developed and submitted to the City Arborist and the	Prior to construction

Table 6-1. Mitigation Monitoring Plan

Impact Category	Mitigation Measure	Monitoring Requirement	Timing of Action
	<ul style="list-style-type: none"> ▪ An alternative site(s), preferably within a two-mile radius of the project site, will be identified for additional tree planting. Alternative sites may include local parks, schools, and/or street frontages. ▪ SVP will pay in-lieu fee per required tree replacement to the City of Santa Clara for in-lieu off-site tree planting in the community. The fee amount will be determined by the City’s adopted fee schedule at the time of receiving approval for tree removals. These funds shall be used for tree planting at the required ratio and maintenance of planted trees. A donation receipt for off-site tree planting will be provided to the Director of Community Development prior to issuance of permits. 	Director of Community Development	
Cultural Resources			
Unanticipated Discoveries of Historical Resources or Unique Archaeological Resources	<p>MM CR 1: Worker Training and Management of Unanticipated Discoveries of Historical Resources, Unique Archaeological Resources. SVP shall conduct a worker environmental awareness program (WEAP) for project personnel who might encounter or alter historical resources or important/unique archaeological properties, including construction supervisors and field personnel. The WEAP may include a kickoff tailgate session that describes how to identify cultural resources and what to do if an unanticipated discovery is made during construction, presents site avoidance requirements and procedures to be followed if unanticipated cultural resources are discovered during project construction, and includes a discussion of disciplinary and other actions that could be taken against persons violating historic preservation laws and SVP policies.</p> <p>If previously unidentified cultural resources are identified during construction activities, construction work within 100 feet of the find shall be halted and directed away from the discovery until a Secretary of the Interior qualified archaeologist assesses the significance of the resource. The archaeologist, in consultation with the City of Santa Clara, State Historic Preservation Officer, any interested Tribes, and any other responsible public agency, shall make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the finds are found to be eligible to the National or California Registers, qualify as a unique archaeological resource under California Environmental Quality Act Section 21083.2, or are determined to be tribal cultural resource as defined in Section 21074.</p>	Review and attend worker environmental awareness program; Monitor implementation of unanticipated discovery protocols	Prior to construction and during construction

Table 6-1. Mitigation Monitoring Plan

Impact Category	Mitigation Measure	Monitoring Requirement	Timing of Action
Unanticipated Discoveries of Human Remains	<p>MM CR-2: Treatment of Human Remains. All human remains discovered are to be treated with respect and dignity. Upon discovery of human remains, all work within 50 feet of the discovery area must cease immediately, nothing is to be disturbed, and the area must be secured. The Santa Clara County Coroner’s Office must be called. The Coroner has two working days to examine the remains after notification. The appropriate land manager/owner of the site is to be called and informed of the discovery. If the remains are located on federal lands, federal land managers, federal law enforcement, and the federal archaeologist must be informed as well, due to complementary jurisdiction issues. It is very important that the suspected remains, and the area around them, are undisturbed and the proper authorities called to the scene as soon as possible, as it could be a crime scene. The Coroner will determine if the remains are archaeological/historic or of modern origin and if there are any criminal or jurisdictional questions.</p> <p>After the Coroner has determined the remains are archaeological/historic-era, the Coroner will make recommendations concerning the treatment and disposition of the remains to the person responsible for the excavation, or to his or her authorized representative. If the Coroner believes the remains to be those of a Native American, he/she shall contact the Native American Heritage Commission (NAHC) by telephone within 24 hours.</p> <p>The NAHC will immediately notify the person it believes to be the most likely descendant (MLD) of the remains. The MLD has 48 hours to make recommendations to the land owner for treatment or disposition of the human remains. If the descendant does not make recommendations within 48 hours, the land owner shall reinter the remains in an area of the property secure from further disturbance. If the land owner does not accept the descendant’s recommendations, the owner or the descendant may request mediation by NAHC.</p> <p>According to the California Health and Safety Code, six (6) or more human burials at one (1) location constitute a cemetery (Section 8100), and willful disturbance of human remains is a felony (Section 7052).</p>	Monitor implementation of human remain discovery protocols	During construction

Table 6-1. Mitigation Monitoring Plan

Impact Category	Mitigation Measure	Monitoring Requirement	Timing of Action
Geology and Soils			
Seismically-Induced Liquefaction	MM G-1: Conduct Geotechnical Investigations for Liquefaction. Because seismically induced liquefaction-related ground failure has the potential to damage or destroy project components, the design-level geotechnical investigations to be performed by SVP shall consider investigations designed to assess the potential for liquefaction to affect the new project poles in the City of Santa Clara where there is high potential for liquefaction-related impacts. Where these hazards are found to exist, appropriate engineering design and construction measures shall be incorporated into the project designs as deemed appropriate by the project engineer. Design measures that would mitigate liquefaction-related impacts could include bigger foundations, installation of flexible bus connections, and/or incorporation of slack in cables to allow ground deformations without damage to structures.	Ensure a design-level geotechnical investigation is performed	At least 60 days before final Project design
Unanticipated Discoveries of Paleontological Resources	MM G-2: Worker Training and Management of Unanticipated Discoveries of Paleontological Resources. In the event that unanticipated paleontological resources or unique geologic resources are encountered during ground-disturbing or other construction activities, a paleontologist must be retained who meets the professional paleontologist qualifications (Society of Vertebrate Paleontology’s Standard Procedures, 2010) and has demonstrated experience in carrying paleontological projects to completion. This qualified paleontologist must develop and implement a Paleontological Resources Management Plan (PRMP) for the project area that meets the standards set forth by the Society of Vertebrate Paleontology (2010). This shall include: <ul style="list-style-type: none"> ▪ A Worker Environmental Awareness Program (WEAP) wherein all construction personnel are trained on the processes to be followed upon encountering any fossils. ▪ A monitoring plan for ground disturbing activities that provides the monitor(s) with the authority to temporarily halt or divert equipment. Monitors shall be onsite for any disturbance of sediments with high or unknown paleontological sensitivity. Monitors must have demonstrated sufficient paleontological training and field experience to have acceptable knowledge and experience of fossil identification, salvage and collection methods, paleontological techniques, and stratigraphy. ▪ A recovery plan for significant fossils that provides for the treatment of specimens to the point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates. ▪ A specimen identification, analysis, and curation plan that includes identification to the lowest taxonomic level possible; taxonomic, taphonomic, and biostratigraphic analysis; and curation to the standards of the repository where they will be curated. 	Review Paleontological Resource Monitoring Program; Monitor implementation of Program	Prior to construction and during construction

Table 6-1. Mitigation Monitoring Plan

Impact Category	Mitigation Measure	Monitoring Requirement	Timing of Action
Hazards and Hazardous Materials			
Hazardous Substances Control	<p>MM HM-1: Hazardous Substance Control and Emergency Response. SVP shall implement its hazardous substance control and emergency response procedures as needed. The procedures identify methods and techniques to minimize the exposure of the public and site workers to potentially hazardous materials during all phases of project construction through operation. They address worker training appropriate to the site worker's role in hazardous substance control and emergency response. The procedures also require implementing appropriate control methods and approved containment and spill-control practices for construction and materials stored on site. If it is necessary to store chemicals on site, they shall be managed in accordance with all applicable regulations. Material safety data sheets shall be maintained and kept available on site, as applicable.</p> <p>Project construction will involve soil surface blading/leveling, excavation of up to several feet, and augering to a maximum depth of 30 feet in some areas. No known soil contamination was identified within the project area. 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. 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.</p> <p>All hazardous materials and hazardous wastes shall be handled, stored, and disposed of in accordance with all applicable regulations, by personnel qualified to handle hazardous materials. The hazardous substance control and emergency response procedures include, but are not limited to, the following:</p> <ul style="list-style-type: none"> ▪ Proper disposal of potentially contaminated soils. ▪ Establishing site-specific buffers for construction vehicles and equipment located near sensitive resources. ▪ Emergency response and reporting procedures to address hazardous material spills. ▪ Stopping work at that location and contacting the City Fire Department Hazardous Materials Division immediately if visual contamination or chemical odors are detected. Work will be resumed at this location after any necessary consultation and approval by the Hazardous Materials Division. <p>SVP shall complete its Emergency Action Plan Form as part of project tailboard meetings. The purpose of the form is to gather emergency contact numbers, first aid location, work site location, and tailboard information.</p>	Collect and analyze soil samples and, if contamination is discovered, ensure that construction activities are conducted according to SVP's hazardous substance control and emergency response procedures	Prior to construction and during construction

Table 6-1. Mitigation Monitoring Plan

Impact Category	Mitigation Measure	Monitoring Requirement	Timing of Action
Hydrology and Water Quality			
Water Quality	<p>MM HYD-1: SWPPP or Erosion Control Plan Development and Implementation. Following project approval, SVP will prepare and implement a SWPPP, if required by State law, or erosion control plan to minimize construction impacts on surface water and groundwater quality. Implementation of the SWPPP or erosion control plan will help stabilize graded areas and reduce erosion and sedimentation. The plan will designate BMPs that will be adhered to during construction activities. Erosion and sediment control measures, such as straw wattles, covers, and silt fences, will be installed before the onset of winter rains or any anticipated storm events. Suitable stabilization measures will be used to protect exposed areas during construction activities, as necessary. During construction activities, measures will be in place to prevent contaminant discharge.</p> <p>The project SWPPP or erosion control plan will include erosion control and sediment transport BMPs to be used during construction. BMPs, where applicable, will be designed by using specific criteria from recognized BMP design guidance manuals. Erosion-minimizing efforts may include measures such as properly containing stockpiled soils.</p> <p>Erosion control measures identified will be installed in an area before construction begins during the wet season and before the onset of winter rains or any anticipated storm events. Temporary measures such as silt fences or wattles, intended to minimize sediment transport from temporarily disturbed areas, will remain in place until disturbed areas have stabilized. The plan will be updated during construction as required by the SWRCB.</p> <p>A worker education program shall be established for all field personnel prior to initiating fieldwork to provide training in the appropriate application and construction of erosion and sediment control measures contained in the SWPPP. This education program will also discuss appropriate hazardous materials management and spill response. Compliance with these requirements will be ensured by the on-site construction contractor.</p>	Ensure a SWPPP is prepared and implemented, or if a SWPPP is not required, ensure that an erosion control plan is developed and implemented to minimize construction impacts on surface water and groundwater quality	Prior to and during construction

Table 6-1. Mitigation Monitoring Plan

Impact Category	Mitigation Measure	Monitoring Requirement	Timing of Action
Traffic/Transportation			
Traffic Control	<p>MM T 1: Construction Traffic Control Plan. Prior to the start of construction, Silicon Valley Power (SVP) shall prepare and submit a Construction Traffic Control Plan for review and approval to the City of Santa Clara (City) Planning Department for public roads and transportation facilities that would be directly affected by the construction activities and/or would require permits and approvals. SVP shall submit the Construction Traffic Control Plan to the City prior to conducting activities covered in the traffic control permits. The Construction Traffic Control Plan shall include, but not be limited to:</p> <ul style="list-style-type: none"> ▪ The locations and use of flaggers, warning signs, lights, barricades, delineators, cones, arrow boards, etc., according to standard guidelines outlined in the Manual on Uniform Traffic Control Devices, the Standard Specifications for Public Works Construction, and/or the California Joint Utility Traffic Control Manual. ▪ Additional methods to reduce temporary traffic delays and trips during peak travel hours (8:00 10:00 a.m. and 4:00 6:00 p.m.) to the maximum extent feasible. ▪ Typical access routes between all staging areas and the proposed work areas. ▪ Defining methods to coordinate with the City throughout construction to minimize cumulative lane disruption impacts should simultaneous construction projects affect shared segments/portions of the circulation system. ▪ Prior to the start of construction, provide (or identify the timing to provide) the City with methods to comply with all specified requirements. ▪ Plans to coordinate in advance with emergency service providers to avoid restricting the movements of emergency vehicles. Police departments and fire departments shall be notified in advance by SVP of the proposed locations, nature, timing, and duration of any roadway disruptions, and shall be advised of any access restrictions that could impact their effectiveness. At locations where roads will be blocked, provisions shall be ready at all times to accommodate emergency vehicles, such as immediately stopping work for emergency vehicle passage, providing short detours, and developing alternate routes in conjunction with the public agencies. Documentation of the coordination with police and fire departments shall be gathered prior to the start of construction. ▪ Plans to coordinate in advance with property owners, if any, that may have limited access to properties due to temporary lane closures. Provisions for ensuring secondary access should be provided. 	Ensure that a Construction Traffic Control Plan is submitted by SVP and approved by the City of Santa Clara	Prior to construction

Table 6-1. Mitigation Monitoring Plan

Impact Category	Mitigation Measure	Monitoring Requirement	Timing of Action
Tribal Cultural Resources			
Unanticipated Tribal Cultural Resources	<p>Mitigation Measure TCR-1: Management of Unanticipated Tribal Cultural Resources. During Project-level construction, should subsurface tribal cultural resources be discovered, all activity in the vicinity of the find shall stop and a qualified archaeologist and an authorized tribal representative shall be contacted to assess the significance of the find according to CEQA Guidelines Section 15064.5 and Section 21074. If any find is determined to be significant, the archaeologist shall determine, in consultation with the implementing agency and any local Native American groups expressing interest, appropriate avoidance measures or other appropriate mitigation. Per CEQA Guidelines Section 15126.4(b)(3), preservation in place shall be the preferred means to avoid impacts to tribal cultural resources. Methods of avoidance may include, but shall not be limited to, Project reroute or redesign, Project cancellation, or identification of protection measures such as capping or fencing. Consistent with CEQA Guidelines Section 15126.4(b)(3)(C), if it is demonstrated that resources cannot be avoided, the qualified archaeologist shall develop additional treatment measures, such as data recovery or other appropriate measures, in consultation with the implementing agency and any local Native American representatives expressing interest in the tribal cultural resource.</p>	Confirm that all activity in the vicinity of a found subsurface tribal cultural resource is ceased and that an authorized tribal representative is contacted	During construction

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8. Comments and Responses to Comments

This section presents responses to the comments received during the public review period for the Mitigated Negative Declaration (May 8 to June 8, 2020). SVP received two public comments from the various State agencies, tribes, and the public that were notified of the intent to adopt the Mitigated Negative Declaration.

Table 8-1 lists the persons and agencies that submitted comments on the Proposed MND. The individual comments are numbered, and responses immediately follow the comments. If revisions were made to the MND and supporting Initial Study based on the comments, the revisions are provided with the response to the specific comment and are indicated in the text of this Final MND with ~~strikeout~~ for deletions of text and underline for new text.

Table 8-1. Comments Received on the Proposed Mitigated Negative Declaration

Commenter	Date of Comment	Comment Set
Santa Clara Valley Water District	6/5/20	A1
BiCMOS FoUndry & Averex Partners	6/8/20	B1

Comment Set A1 – Valley Water

Email: South Loop Reconfigure Project Environmental Team

From: Jourdan Alvarado <JAlvarado@valleywater.org>
Sent: Friday, June 5, 2020 1:22 PM
To: South Loop Reconfigure Project Environmental Team
Cc: Colleen Haggerty
Subject: SVP South Loop Reconfigure Project MND

Hi Jeevan,

The Santa Clara Valley Water District (Valley Water) has reviewed the Mitigated Negative Declaration (MND) for the proposed Silicon Valley Power (SVP) South Loop Reconfigure Project within the northeastern area of the City of Santa Clara, received by Valley Water on May 8, 2020.

Per our review, we have the following comments:

1. Section 5.7.1 Setting, Local Geology suggests that engineered levees have been constructed along all the City of Santa Clara's major creeks. Many of the creeks within Santa Clara have been modified over time; however, not all modified reaches have levees. Section 5.7.1 Setting, Local Geology on page 5-46 should be revised accordingly. A1-1
2. While Guadalupe River is the closest creek, the site drains to both the Guadalupe River in the greater Guadalupe River Watershed and San Tomas Aquino Creek in the greater West Valley Watershed. Therefore, Section 5.10.1 Setting, Surface Waters and Drainage on page 5-66 should refer to both Guadalupe River and San Tomas Aquino Creek as the closest drainages to the proposed project area. A1-2
3. In addition to Federal Emergency Management Agency (FEMA) Flood Hazard Zones AO and AH, portions of the proposed project are also located in Shaded Zone X, representing areas of 0.2% annual chance flood, areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from 1% annual chance flood. Section 5.10.1 Setting, Flood Hazard Areas on page 5-67 should note portions of the project area located outside of Zones AO and AH are located in Shaded Zone X. A1-3

If you have any questions, or need further information, you can reach me at (408) 630-2955, or by e-mail at JAlvarado@valleywater.org. Please reference Valley Water File No. 34152 on future correspondence regarding this project.

Thank you,
JOURDAN ALVARADO, CFM
ASSISTANT ENGINEER II (CIVIL)
Community Projects Review Unit
Tel. (408) 630-2955 / Cell. (408) 613-4655

Santa Clara Valley Water District is now known as:



Clean Water • Healthy Environment • Flood Protection
5750 Almaden Expressway, San Jose CA 95118
www.valleywater.org

Responses to Comment Set A1 – Santa Clara Valley Water District

- A1-1 The commenter stated that many of the creeks within the City of Santa Clara have been modified over time; however, not all modified reaches have levees. Therefore, as requested, Section 5.7.1 (Setting, Local Geology) in the Final IS/MND has been revised to state that “man-made engineered levees have been constructed over many but not all of the natural levee deposits for flood control.”
- A1-2 The commenter stated that while Guadalupe River is the closest creek, the site drains to both the Guadalupe River in the greater Guadalupe River Watershed and San Tomas Aquino Creek in the greater West Valley Watershed.
- In response, Section 5.10.1 (Setting, Surface Waters and Drainage) in the Final IS/MND has been revised to state that the project site drains to both Guadalupe River and San Tomas Aquino Creek.
- A1-3 The commenter stated that in addition to Federal Emergency Management Agency (FEMA) Flood Hazard Zones AO and AH, portions of the proposed project are also located in Shaded Zone X, representing areas of 0.2% annual chance flood, areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from 1% annual chance flood.
- As requested, Section 5.10.1 (Setting, Flood Hazard Areas) in the Final IS/MND has been revised to note portions of the project area that are located outside of Zones AO and AH are located in Shaded Zone X and to define the Shaded Zone X FEMA designation.

Comment Set B1 – BiCMOS Foundry & Averex Partners

Email: South Loop Reconfigure Project Environmental Team

From: Peter@bicmosfoundry.com
Sent: Monday, June 8, 2020 4:40 PM
To: 'Jeevan Valath'; South Loop Reconfigure Project Environmental Team
Cc: 'BiCMOS-Swamy'
Subject: June 8 Response to Jeevan & Aspen Environmental Group

To Jeevan Valath & Aspen Environmental Group,

We are still evaluating your South Loop Project as we remain concerned about adverse safety, health & environmental impacts - to us & to future occupants of our Properties. Employees have also raised health concerns citing cases of cancers & deaths to employees of other buildings, employees working within close proximity to high voltage transmission lines. We reserve our rights to understand impacts by this project.

B1-1

Please include the photo/map layout you emailed to us on June 5, 2020 in the report (attached to this email) as a modifier to the map on 4-3 of your report and as a basis for discussion. Overall your section 4 is inconclusive. As example, we want to explore with SVP options for detailed changes to the map that we request that you include into your report – so we can quickly reach a conclusion. Looking forward to working out the details.

B1-2

Regards,

Peter Liljegren
BiCMOS Foundry & Averex Partners
975 Comstock Street
Santa Clara, Ca 95054

Mobile: 650 346 3267

Responses to Comment Set B1 – BiCMOS Foundry & Averex Partners

B1-1 The commenter stated that he is concerned about adverse safety, health & environmental impacts to themselves, employees, and to future occupants of their properties due to close proximity to high voltage transmission lines.

Chapter 5 of the Draft IS/MND describes the environmental setting and discusses potential environmental impacts for 21 different issue areas, including Hazards and Hazardous Materials (Section 5.9) and Corona and Induced Current Effects (Section 5.21), which pertain to human safety and health. The CEQA Guidelines do not provide significance criteria for evaluating impacts from corona or induced current effects. However, SVP included an analysis of environmental impacts related to corona and induced current from high voltage power lines, because concerns about project interference with existing businesses and future development in the area were raised by the commenter during scoping. As described in Section 5.21.2, the Draft IS/MND concluded that potential impacts from audible noise, radio and television interference, computer interference, disturbance of cardiac pacemakers, ignition of flammable materials, and corrosion of buried metallic objects would be less than significant.

In addition to induced current impacts, SVP recognizes that there is a great deal of public interest and concern regarding potential health effects from exposure to electric and magnetic fields (“EMF”) from power lines. To address public concerns about EMF, Section 4.10.7 of the Draft IS/MND provides information regarding EMF associated with electric utility facilities related to public health and safety. As Section 4.10.7 of the Draft IS/MND explains, potential health effects from exposure to electric fields from power lines is typically not of concern since electric fields are effectively shielded by materials such as trees, walls, etc. Therefore, the information in Section 4.10.7 of the IS/MND related to EMF focuses primarily on exposure to magnetic fields from power lines. However, it does not consider magnetic fields in the context of CEQA or the determination of environmental impacts. This is because there is no agreement among scientists whether exposure to EMF creates a potential health risk and because there are no defined or adopted CEQA standards for defining health risk from EMF.

For more than 20 years, questions have been asked regarding the potential effects within the environment of EMFs from power lines. Early studies focused primarily on interactions with the electric fields from power lines. In the late 1970s, the subject of magnetic field interactions began to receive additional public attention and research levels increased. A substantial amount of research into the health impacts of electric and magnetic fields has been conducted over the past several decades; however, much of the body of national and international research regarding EMF and public health risks remains contradictory and inconclusive. The correlation between proximity to high voltage power lines and increased leukemia and other cancer rates has been found to be true in some scientific studies and is supported by anecdotal evidence, but has not been found to be true in other studies nor has it been proven in laboratory experiments.⁵ As a result, EMF information in the IS/MND is presented in response to public interest and concern.

⁵ Rob Smerling, Harvard Health Publications. *Power lines and your health*. 2008. <http://health.msn.com/health-topics/cancer/articlepage.aspx?cp-documentid=100202335&page=2>. May 2008.

Methods to Reduce Magnetic Fields. Magnetic fields can be reduced either by cancellation or by increasing distance from the source. Cancellation is achieved in two ways. A transmission line circuit consists of three “phases”: three separate wires (conductors) on a transmission tower. The configuration of these three conductors can reduce magnetic fields. First, when the configuration places the three conductors closer together, the interference, or cancellation, of the fields from each wire is enhanced. This technique has practical limitations because of the potential for short circuits if the wires are placed too close together. There are also worker safety issues to consider if spacing is reduced. Second, in instances where there are two circuits (more than three phase wires) cancellation can be accomplished by arranging phase wires from the different circuits near each other. In underground lines, the three phases are typically much closer together than in overhead lines because the cables are insulated (coated), but field cancellation still occurs.

The distance between the source of fields and the public can be increased by either placing the wires higher aboveground, burying underground cables deeper, or by increasing the width of the ROW. For transmission lines, these methods can prove effective in reducing fields because the reduction of the field strength drops rapidly with distance. As such, SVP has designed the proposed South Loop Project to hang the three-phase conductors on the street side of the transmission structures, where feasible, in order to increase the conductor distance from buildings along the ROW.

B1-2 The commenter requested that the Final IS/MND include the photo/map layout emailed by SVP to the commenter on June 5, 2020, as a modifier to the map on 4-3 of the Draft IS/MND. The commenter also stated that Section 4 is inconclusive.

It is unclear what details in Section 4 (Project Description) of the Draft IS/MND are inconclusive. The referenced map on page 4-3 of the Draft IS/MND (Figure 4-1) is an overview map depicting the entire project route on a single page. The map provided to the commenter by SVP shows detailed preliminary engineering of one specific location along the ROW, which is not the purpose of Figure 4-1. Rather Appendix A of the Draft IS/MND contains a mapbook based on preliminary engineering of the project route illustrating the ROW, transmission centerline, and pole locations/work areas (pending final design). The commenter’s property is depicted on Figure A-1, map 1 of 23, in Appendix A of the Draft IS/MND. As shown on this figure and emailed by SVP on June 5, 2020, the proposed Pole #33 would be approximately 47 feet from the property line. No figure revisions are necessary in the Final IS/MND.