

DRAFT

MITIGATED NEGATIVE DECLARATION AND SUPPORTING INITIAL STUDY

NRS-KRS 115kV Transmission Line Project

July 2024



Lead Agency



Project Sponsor



Technical Assistance



DRAFT

**MITIGATED NEGATIVE DECLARATION
AND SUPPORTING INITIAL STUDY
FOR
SILICON VALLEY POWER'S
NRS-KRS 115kV TRANSMISSION LINE PROJECT**

LEAD AGENCY:

CITY OF SANTA CLARA
1500 WARBURTON AVENUE
SANTA CLARA, CA 95050

PROJECT SPONSOR:

SILICON VALLEY POWER
881 MARTIN AVENUE
SANTA CLARA, CA 95050

TECHNICAL ASSISTANCE:

ASPEN ENVIRONMENTAL GROUP
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JULY 2024

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1. MITIGATED NEGATIVE DECLARATION

1.1. Project Information

Project:	NRS to KRS 115 kV Transmission Line Project City of Santa Clara, Santa Clara County, California
Project Sponsor:	City of Santa Clara, Silicon Valley Power 881 Martin Avenue Santa Clara, CA 95050 (408) 615-6600
General Plan:	NRS is located on land with the general plan designation of Regional Commercial, and the KRS is on land designated as Light Industrial
Zoning:	NRS and KRS are located on land zoned as Public or Quasi Public

1.2. Introduction

Pursuant to CEQA, the City of Santa Clara 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, the City of Santa Clara 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. Where a measure described in this document has been previously incorporated into the project, either as a specific project design feature or as an Applicant-Proposed Measure, this is noted in the discussion. Mitigation measures are structured in accordance with the criteria in Section 15370 of the CEQA *Guidelines*.

1.3. Project Description

Silicon Valley Power (SVP) proposes to construct the NRS to KRS 115 kV Transmission Line Project (Project), which would include constructing a new, 2.24 mile long overhead and/or underground 115 Kilovolt (kV) transmission line between two existing facilities, Northern Receiving Station (NRS) and Kifer Receiving Station (KRS), in the City of Santa Clara (City).

1.4. Environmental Determination

The Initial Study was prepared to identify the potential environmental effects resulting from the proposed Project's implementation, and to evaluate the level of significance of these effects. The Initial Study relies on information provided by SVP, Project site reconnaissance by SVP's consultant, Aspen Environmental Group, and information and documents cited in individual resource topic discussions.

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.

1.5. Mitigation Measures

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, and graded areas) shall be watered as needed, up to 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 attributed to the Project shall be removed using wet power vacuum street sweepers at least once per day, if needed. The use of dry power sweeping is prohibited.
- All areas to be paved shall be completed as soon as possible. Foundation pads shall be laid as soon as possible after grading.
- 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 regarding idling 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 or its designee 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 Special-Status Wildlife Species

MM BIO-1 **Implement Worker Environmental Awareness Program.** Prior to and for the duration of any vegetation removal and trimming and any ground disturbing activities, SVP or its designee shall provide Worker Environmental Awareness Program (WEAP) training to all new personnel prior to beginning work on the Project. The training may be presented in the form of a video. The training program shall be developed by a qualified biologist to educate Project personnel about the Project's sensitive biological resources. The name and credentials of the qualified biologist shall be submitted to the City no less than 14 days prior to the surveys for review and approval. A draft of the training program (i.e., video and written materials) shall be submitted to the City no less than 14 days prior for approval prior to implementation. The WEAP shall include, at a minimum:

- An overview of the sensitive biological resources that are known or have the potential to occur in the Project area and surrounding habitat. This shall include nesting birds and special- plants and wildlife.
- An overview of the Project and Mitigation Monitoring and Reporting Program (MMRP), and the consequences of non-compliance with these requirements.
- An overview of the federal and State Endangered Species Acts, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, pertinent Fish and Game Code sections, and other applicable regulatory requirements and the consequences of non-compliance with these requirements.
- Functions, responsibilities, and authority of the biological monitor(s) and how they interact with Project personnel.
- Identify clear points of contact for the biological monitor(s) and construction personnel including who to contact should workers have questions regarding compliance with environmental documents and permit conditions.
- Project restrictions, such as Environmentally Sensitive Habitat Areas (ESHAs), setbacks from sensitive biological resources, and avoidance buffers.
- Requirements to remain within authorized work areas and on approved access routes, with examples of flagging and signage used to designate these areas.
- Information on compliance with Project speed limits, control of litter and micro trash, smoking restrictions, wildfire minimization measures, spill containment and clean up, and the implementation of Best Management Practices.
- Explanation that wildlife must not be harmed or harassed including procedures for abiding by Project speed limits, covering pipes, securing excavations, and installing exit ramps to prevent wildlife entrapment.

Training acknowledgement forms shall be signed by each person attesting that they understand and will abide by Project requirements. Upon request, SVP or its designee shall provide the City the WEAP training acknowledgement forms for persons who have completed the training in the prior month and a running total of all persons who have completed the training to date.

MM BIO-2 **Biological Monitoring.** SVP or its designee shall retain a qualified biologist as biological monitor on the Project, to be approved by the City. If sensitive biological resources are identified during preconstruction surveys or incidentally, the qualified biologist will monitor Project work locations in proximity to sensitive biological resources weekly until

biological resources are not found for one consecutive month, at which point weekly monitoring will cease. The qualified biologist shall be notified immediately if any nesting birds or other biological resources are discovered once construction begins. 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 animal. 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, permit conditions, or other Project requirements, or will have an unauthorized adverse effect on biological resources.

MM BIO-3

Conduct Preconstruction Surveys for Special-Status Wildlife and Implement Avoidance Measures. A qualified biologist shall conduct a preconstruction survey for each of the species identified below. These surveys can be combined if they meet the requirements outlined in this measure. The name and credentials of the qualified biologist shall be submitted to the City no less than 14 days prior to the surveys for review and approval. Within 14 days of completion of the surveys, the City shall be provided with a report describing the findings, including the date, time, and duration of the surveys; identity of the surveyor(s); a list of all common and special-status species observed; locations of any special-status species identified, including any established avoidance buffers; and any actions taken at the direction of the City in coordination with CDFW, and/or USFWS.

Bumble Bee: A preconstruction survey for Crotch's bumble bee and western bumble bee shall be conducted during the colony active period for each species (April through August) prior to project vegetation management and ground disturbing activities. The survey shall be conducted by a qualified entomologist or biologist familiar with the life history and ecology of special-status bumble bee species. The preconstruction survey for special-status bumble bees shall focus on the ruderal habitat within the utility right-of-way adjacent to the Northern Receiving Station and landscaped and ruderal land at the Montague Expressway interchange. The survey shall identify any potential foraging, nesting, and/or overwintering resources present within the Project work areas and a 50-foot buffer where legal access is available. If a potential active special-status bumble bee nest site is identified, a 50-foot avoidance buffer shall be clearly delineated with staking, flagging, and/or signage and Project activities will be prohibited from the area until it is determined that the nest is no longer potentially active. The qualified biologist shall notify the City for coordination with CDFW within 24 hours as further coordination may be required to avoid or mitigate impacts.

Burrowing Owl: No later than seven days prior to start of project vegetation management and ground disturbing activities, a qualified biologist shall conduct a preconstruction survey for burrowing owl. The survey shall include the focus areas (described below) plus a 250-foot buffer where legal access is available. The survey for burrowing owl shall focus on the ruderal habitat described for bumble bees above. If burrows or other structures are identified that contain signs of use by burrowing owl, or if burrowing owl(s) is observed, an avoidance buffer area shall be clearly delineated with staking, flagging, and/or signage. If during the nesting season (February 1 to August 31), a 250-foot avoidance buffer shall be established, and Project activities will be prohibited from the area until a qualified biologist determines it is occupied either by a non-mated pair or the young have fledged. If outside the nesting season, a 160-foot avoidance buffer shall be established. The prescribed buffers may be adjusted by the qualified avian biologist in coordination with the City and CDFW based on existing conditions around the burrow, planned construction activities, tolerance of the species at a given location, and other pertinent factors.

If avoidance of burrowing owls is not feasible and work will be conducted outside the nesting season, a Burrowing Owl Passive Relocation Plan shall be developed to provide detailed methods and guidance for passive relocation of burrowing owls. The Burrowing Owl Passive Relocation Plan shall be submitted to the City for approval in coordination with CDFW prior to conducting passive relocation. An occupied burrow may not be disturbed during the nesting season, unless a qualified biologist determines, by non-invasive methods, that it is not occupied by a mated pair. Passive relocation would include installation of one-way doors on burrow entrances that would let owls out of the burrow but would not let them back in. Once owls have been passively relocated, burrows will be carefully excavated by hand and collapsed by, or under the direct supervision, of a qualified biologist.

Within 14 days of completion of the surveys, the City shall be provided with a report describing the findings, including the date, time, and duration of the surveys; identity of the surveyor(s); any established avoidance buffers in the event burrowing owls are documented to be present; and any actions taken at the direction of the City and/or CDFW.

Western Pond Turtle: No later than seven days prior to start of project vegetation management and ground disturbing activities, a qualified biologist shall conduct a preconstruction survey for western pond turtle. The survey for western pond turtle shall focus on the ruderal habitat within the utility right-of-way southeast adjacent to the Northern Receiving Station.

Western pond turtle or other special-status wildlife found within the Project site during the surveys shall be allowed to leave on its own volition prior to the onset of construction. If species of special concern are found within the Project site during surveys and will not leave on its own volition, the species will be relocated to the nearest suitable habitat outside of the Project site. Species of special concern will only be handled by qualified personnel as authorized by CDFW and/or USFWS under an issued state scientific collecting permit (SCP), memorandum of understanding (MOU), or federal recovery permit. Impacts to federally or state-listed species or state-listing candidate species are not authorized. If any State or federally listed, candidate, or proposed species are detected work will be stopped and the applicant shall notify the City for coordination with CDFW and or USFWS, within 24-hours for further direction.

MM BIO-4 Preconstruction Nesting Bird Surveys and Nest Protection. During the nesting season (February 1 to August 31), preconstruction nesting bird surveys shall be conducted on the site and vicinity by a qualified biologist no more than 7 days before any work activities, including any vegetation removal or trimming, are performed at a given Project location. The surveys shall be conducted following the sequential schedule of the linear Project in a manner that minimizes potential for the surveys to expire before the construction crews proceed to a new Project work location. 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, the biological monitor will determine if there is need for a buffer or shield to minimize disturbance of the nest. Upon this determination and execution of any required minimization action, work may proceed. The extent of the determination will be based upon: acclimation of the species or individual to disturbance, nest type (cavity, tree, ground, etc.), and level and duration of construction activity. If there is a break in construction at a work location for a period of 14 or more days during nesting season, a new nesting bird survey shall be undertaken before construction is

allowed to commence at that location to determine if any nests have been established. Bird surveys are not required outside of the nesting season.

In the unlikely event a special-status or listed species is found nesting nearby, CDFW and USFWS will be notified, and the City will be provided with nest survey results, if requested. When active nests are identified, monitoring for significant disturbance to the birds will be implemented. Construction will not be allowed to continue unless the qualified biologist determines that no disturbance is occurring.

MM BIO-5 Preconstruction Bat Survey and Implement Avoidance Measures. A qualified biologist shall conduct surveys for special-status bats during the appropriate time of day to maximize detectability to determine if bat species are roosting in trees or other vegetation requiring removal or clearance pruning for the Project. The name and credentials of the qualified biologist shall be submitted to the City no less than 14 days prior to the surveys for review and approval. The survey shall occur no less than 7 days and no more than 14 days prior to beginning tree or other vegetation removal or trimming activities. Survey methodology may include visual surveys for bats (e.g., observation of bats emerging from roosts to forage), inspection for suitable roost habitat, bat sign (e.g., guano), or use of ultrasonic detectors (e.g., Anabat, etc). Visual surveys shall include all trees or other vegetation requiring removal or clearance pruning for the Project.

If evidence of bat use is observed, the approximate number and species of bats using the roost shall be determined. Bat detectors may be used to supplement survey efforts.

If roosts or a maternity colony are determined to be present, then a Bat Mitigation and Monitoring Plan (Plan) shall be prepared and implemented to mitigate for the loss of roosting habitat. The Plan shall include information pertaining to the species of bat and location of the roost, exclusion methods and roost removal procedures, compensatory mitigation for permanent impacts (including specific mitigation ratios and location of proposed mitigation) and monitoring to assess bat use of mitigation areas. This Plan shall be submitted to the City and CDFW for review and approval prior to project activities that could disturb roosting bats.

Mitigation Measures to Comply with Local Tree Policies and Ordinances

MM BIO 6: Tree Protection Measures for Retained Trees. To minimize the potential damage and ensure the long-term health, stability, and survival of retained trees, measures outlined in the Tree Protection Plan below shall be implemented.

Tree Protection Zone

- A Tree Protection Zone (TPZ) shall be defined by the City Arborist or City designated ISA Certified Arborist for all trees within 20 feet of any excavations that could be affected by project activities and are intended for preservation. A TPZ will not be established for trees within the Project area that are not within this excavation zone. TPZ will be taken down once excavation work is completed within 20 feet. A TPZ will typically include all area within the dripline of trees to be retained.
- The TPZ will be protected by a fenced enclosure to prevent unauthorized access during project activities. Fencing shall be constructed of sturdy but open material (i.e., orange webbed construction fencing, chain-link) with a minimum height of 4 feet and secured in place. Warning signs (e.g. WARNING – Tree Protection Zone – This fence shall not be moved without approval by the City Arborist or a City designated arborist) shall be prominently displayed and visible from all sides of the TPZ fencing.

- TPZ fencing shall be installed prior to any demolition, grading, staging, stockpiling, or any other construction activities, and shall remain in place until all construction activities are complete.
- No construction, staging, or storage of materials, equipment or vehicles shall occur within the TPZ without advanced approval and oversight by the City Arborist or a City designated ISA Certified Arborist.
- No excess soil, excess concrete or concrete wash, chemicals, refuse or other waste shall be placed within the TPZ.
- The primary contractor shall be responsible for maintaining TPZ fencing and enforcing all TPZ guidelines outlined above throughout the course of the Project.

Site Grading, Excavation, and Trenching

- Soil disturbance or grade changes within a TPZ are not permitted unless approved by the City Arborist or a City designated arborist. Any approved grading, excavation or trench work within a TPZ will be field staked and inspected by the City Arborist or a City designated ISA Certified Arborist prior to implementation.
- All grading, excavation and trenching work within a TPZ shall be performed under the observation of a City Arborist or City designated ISA Certified Arborist.
- All grading shall be designed to provide positive drainage away from the base of trees to be preserved and shall not create ponding within a TPZ.
- Grade changes in the vicinity of trees to be preserved should remain as close to natural grade as possible.

Canopy Pruning

- To the extent possible, any necessary canopy pruning shall be completed prior to the commencement of construction activities.
- Pruning shall be performed by a qualified tree service worker under the direction of a ISA Certified Arborist following International Society of Arboriculture tree pruning best management practices. Pruning shall not be performed by construction personnel.

Root Pruning

- Any roots one inch and larger requiring removal shall be cut cleanly in sound tissue. No pruning seals or paint shall be used on wounds.
- Roots two inches and greater shall remain in place and undamaged to the extent practicable. If removal is required, cuts shall be made with the approval and under the direction of an ISA Certified Arborist.

Communication for Tree Protection Compliance

- A preconstruction meeting shall be arranged for the City Arborist or City designated ISA Certified Arborist to meet with the Project Planner, Project Contractors, Onsite Project Supervisors, Tree Pruning and Removal Contractor, and/or other appropriate Project Leads to review and secure a commitment to comply with all tree protection measures.

Mitigation for Previously Unidentified Archaeological 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 materials during Project work. This program may be combined with any similar required program, such as for biological resources. The WEAP will 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, construction work within 50 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, 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 California Register, 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 for Treatment of Human Remains

MM CR 2 **Treatment of Human Remains.** Any 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 of the site is to be called and informed of the discovery. 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 landowner for treatment or disposition of the human remains. If the descendant does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from further disturbance. If the landowner 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. Because seismically induced liquefaction-related ground failure has the potential to damage or destroy Project components, SVP shall cause design-level geotechnical investigation for the Project to be performed that shall include investigations designed to assess the potential for geologic and seismic hazards, and specifically include evaluation of the potential for liquefaction and expansive soils to affect the 115 kV line structures. Where liquefaction or expansive soils hazards are found to exist/verified, appropriate engineering design and construction measures shall be incorporated into the Project design as deemed appropriate by the Project engineer. Finalized Project design incorporating geotechnical recommendations shall be submitted to the City 60 days prior to Project construction.

Mitigation Measure for Paleontological Resources

MM G-2 Worker Training and Management of Paleontological Resources. 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. The qualified professional paleontologist shall prepare a Worker Environmental Awareness Program (WEAP) for potentially encountered paleontological resources, and training shall be provided for all staff who will be onsite during excavations. The WEAP shall show what local Pleistocene fossils look like in general, where they may appear in the Project, and how to proceed should material suspected to be a fossil is encountered.

The WEAP shall include procedures to follow if paleontological resources are encountered, including:

- A monitoring plan for soils generated from tubular pole foundation excavations that may encounter Pleistocene sediments. Workers may temporarily halt operations to allow for identification and collection of paleontological resources from soil spoil piles. If a potential significant paleontological resource is noted, a qualified paleontologist or paleontological monitor shall be called to the site identify and collect the fossil.
- A plan for treatment of 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.
- Paleontological resource collection treatment, and identification shall meet standards set forth in the Society of Vertebrate Paleontology (2010).

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

MM H-1 Hazardous Substance Control and Emergency Response. SVP shall implement its hazardous substance control and emergency response procedures as needed. These 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.

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 resulting from leaks or spills.
- 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, identify first aid locations and provide other tailboard safety information.

Mitigation Measure for Contaminated Soil and Groundwater

MM H-2 Soil and Groundwater Management. Prior to Project construction and ground disturbing activities, SVP shall implement an evaluation of potential soil and groundwater contamination at locations along the Project route where excavation, drilling, auguring, or other significant ground disturbance will occur to prevent mobilization of contaminants and exposure of workers and the public. The evaluation shall be completed at least 60 days prior to the start of Project construction. The evaluation of soil and groundwater shall include, but not be limited to, the following:

- If contaminants below regulatory screening levels are identified, SVP shall coordinate with SCCDEH regarding soil reuse guidelines;
- If contaminants exceeding applicable regulatory screening levels for construction workers and residential users published by the RWQCB, DTSC, or the Environmental Protection Agency (EPA) (except for arsenic which is naturally occurring in the area), are encountered during the Soil and Groundwater Characterization Study SVP shall obtain regulatory oversight from SCCDEH and shall prepare a Soil and Groundwater Management Plan (SGMP); and
- Soils found in concentrations above established thresholds (except for arsenic) shall be removed and disposed of according to California Hazardous Waste Regulations.

If a SGMP is needed, the SGMP shall be prepared to guide activities during excavation and other ground disturbing activities to ensure that identified contaminated soils or groundwater are handled, removed, and disposed of properly. The SGMP shall be prepared by a

licensed qualified professional and submitted to SCCDEH at least 30 days prior to Project construction and shall include, but not be limited to, the following elements:

- Procedures and protocols for the safe handling, storage, stockpiling, and disposal of contaminated soils;
- Contaminated soil excavated from the site shall be hauled off-site and disposed of at a licensed hazardous materials disposal site;
- Protocols to manage and dispose of contaminated groundwater that may be encountered during trenching or subsurface excavation activities, and if dewatering is required; and
- Procedures and protocols to follow in the event soils or groundwater not previously identified as contaminated and suspected of being contaminated (on the basis of visual, olfactory, or other evidence) are identified during site grading or excavation activities or dewatering activities to allow for proper identification and characterization, and subsequent proper handling, removal, and disposal.

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 or disturbed 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, may be installed before the onset of winter rains or any anticipated storm events if soils are not stabilized. 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 Measure for Construction Traffic

MM T-1 Construction Traffic Control Plan. Prior to the start of construction, SVP or its designee shall prepare and submit an Encroachment Permit which will include the construction Traffic Control Plan for review and approval to the City's Department of Public Works 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 to the 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.
- Plans to coordinate with Valley Transportation Authority in advance of construction to minimize disruption to mass transit.

Mitigation for Unanticipated Tribal Cultural Resources

MM TCR-1 Management of Unanticipated Tribal Cultural Resources. During project 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, 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 and Reporting Program (MMRP) has been prepared to ensure that mitigation measures are properly implemented (see Section 6). The MMRP 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.

- | | | |
|---|---|---|
| ☐ Aesthetics | ☐ Agriculture & Forestry Resources | ☒ Air Quality |
| ☒ Biological Resources | ☒ Cultural Resources | ☐ Energy |
| ☒ Geology/Soils | ☐ Greenhouse Gas Emissions | ☒ Hazards & Hazardous Materials |
| ☒ Hydrology/Water Quality | ☐ Land Use/Planning | ☐ Mineral Resources |
| ☐ Noise | ☐ Population/Housing | ☐ Public Services |
| ☐ Recreation | ☒ Transportation | ☒ Tribal Cultural Resources |
| ☐ Utilities/Service Systems | ☐ Wildfire | ☐ 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 or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the Proposed Project, nothing further is required.



Allie Jackman, Project Manager
Principal Electric Utility Engineer
Silicon Valley Power/City of Santa Clara

7/31/2024

Date

3. INTRODUCTION TO THE INITIAL STUDY

3.1. Proposed Project Overview

Silicon Valley Power (SVP) is proposing to construct approximately 2.24 miles of new 115 kilovolt (kV) transmission line within the northeastern area of the City of Santa Clara (City). SVP's primary objective of the new 115kV transmission line (Proposed Project) is to connect the Northern Receiving Station (NRS) and Kifer Receiving Station (KRS). By connecting these two receiving stations, it will allow energy to be balanced and redistributed within SVP's transmission receiving stations and allow SVP to serve new load growth projected based on the SVP Resource Load Forecast.

The SVP evaluation team identified and evaluated three routes for the new 115kV transmission line prior to selection of the final route. The preferred alignment begins at NRS exiting northeast toward Lafayette Street continuing southeast within the median of Lafayette Street to Agnew Road where it transitions to the east side of Lafayette Street until Montague Expressway, where the route shifts to the west side of Bassett Street. The transmission line proceeds southeast along Bassett Street to Bayshore Freeway (US 101), where the route crosses Bayshore Freeway and continues south along Duane Avenue interconnecting to KRS from the north.

3.2. Environmental Process

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 (City) 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 meetings on April 25, 2024 and May 23, 2024, 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:

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

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 Plan. Includes applicant proposed measures (APMs) and 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.
- Appendix A: List of Preparers. Lists the preparers of the IS.
- Appendix B: References. Lists the sources of information used to prepare the IS.
- Appendix C: AQ/GHG Report. Presents the modeling inputs and outputs used for the Air Quality and Greenhouse Gas sections of the IS.
- Appendix D: Draft Arborist Report. Presents an inventory and a general assessment of trees in the Project Area, and a Tree Protection Plan.
- Appendix E: Biological Resources Report. Lists the known and potential occurrences of special-status species within the Project Area.
- Appendix F: Scoping Report. Summarizes the public scoping effort and comments received.
- Appendix G: Electric and Magnetic Field Report.

4. PROJECT DESCRIPTION

Silicon Valley Power (SVP) proposes to construct the NRS to KRS 115 kV Transmission Line Project (Project), which would include constructing a new, 2.24 mile long overhead and/or underground 115 Kilovolt (kV) transmission line between two existing facilities, Northern Receiving Station (NRS) and Kifer Receiving Station (KRS), in the City of Santa Clara (City).

4.1. Project Title

NRS to KRS 115 kV Transmission Line Project (Project)

4.2. Lead Agency Name and Address

City of Santa Clara
1500 Warburton Avenue
Santa Clara, California 95050

4.3. Lead Agency Contact Person and Phone Number

Allie Jackman, Project Manager
Principal Electric Utility Engineer
Phone: (408) 615--6639
E-mail: AJackman@SantaClaraCA.gov

4.4. Project Location

The proposed Project is located in the City of Santa Clara (City) within Santa Clara County, CA. The Project area is a fully developed urban area and includes several existing transmission lines, including lines owned by SVP and PG&E. The proposed Project would be located in Section 27, Township 6S, Range 1W, Mount Diablo Meridian.

The NRS is located south of the intersection of Bill Walsh Way and Stars and Stripes Drive, immediately adjacent to the southeast corner of Levi's Stadium. The KRS is located approximately 0.1 miles northwest of the intersection of Lafayette Street and Central Expressway. The NRS and KRS are approximately 2 miles away from each other.

4.5. Project Sponsor's Name and Address

Silicon Valley Power
881 Martin Avenue
Santa Clara, California 95050

4.6. General Plan Designation

Due to the linear nature of the Project, there are several general plan designations along the Project route. These include Very Low Density Residential, Low Density Residential, Medium Density Residential, Neighborhood Mixed Use, Parks/Open Space, High Intensity Office/R&D, Low Intensity Office/R&D, Light Industrial, and Heavy Industrial.

NRS is located on land with the general plan designation of Regional Commercial, and the KRS is on land designated as Light Industrial.

4.7. Zoning

There are several zoning designations along the Project route, including: MH - Heavy Industrial, ML - Light Industrial, R3-25D - Moderate Density Multiple Dwelling, CN – Neighborhood Commercial, PD- Planned Development, R1-6L – Single Family, and PD-MC – Planned Development – Master Community. The land that the NRS and KRS are on are zoned as Public or Quasi Public (City of Santa Clara 2023).

4.8. Surrounding Land Uses and Setting

Land uses within the Project area include residential, commercial, and industrial. Existing SVP transmission and distribution power lines are located near and within the project right-of-way (ROW).

North of Bayshore Freeway/Highway 101, land uses are primarily residential, with single and multi-family homes, and with commercial and industrial uses south of Montague Expressway and west of Lafayette Street. South of Bayshore Freeway/Highway 101, land uses are primarily light industrial uses and low-rise office buildings.

4.9. Project Overview

SVP is proposing to construct approximately 2.24 miles of a new overhead and/or underground 115 kV transmission line. The Project would be built to accommodate energization at 230 kV, however it would initially be operated at 115 kV.

The transmission line would start at the NRS, south of the intersection of Bill Walsh Way and Stars and Stripes Drive, approximately 0.1 miles southeast of Levi's Stadium. The transmission line would travel approximately 2.24 miles south along Lafayette Street, Bassett Street, and Duane Avenue and end at the KRS, approximately 0.1 miles northwest of the intersection of Lafayette Street and Central Expressway (See Figure 4-1, Project Overview).

4.9.1. Overhead and Underground Options

Two options are being considered for the northern segment of this project: overhead and underground. The northern segment that contains both overhead and underground options would start at NRS, follow Lafayette Street, and end approximately 300 feet south of the intersection of Lafayette Street and Agnew Road, covering approximately 0.74 miles.

Depending on the option selected, the transmission line would be built either completely overhead (Option 1), or as a combination of underground and overhead (Option 2). The underground segment, if chosen, would place the transmission line underground beneath Lafayette Street after a portion of overhead alignment where the line would leave NRS and enter the median of Lafayette and transition underground. The overall northern segment is approximately 0.74 miles long. The underground segment would transition to overhead approximately 300 feet south of the intersection of Lafayette Street and Agnew Road, then continue overhead south of Agnew Road to connect to the KRS. South of Agnew Road, the route would be overhead, regardless of the Option chosen.

4.9.1.1. Option 1 - Overhead Route Segment

Under Option 1, the entire Project would be overhead. Between NRS and the intersection of Lafayette Street and Agnew Road, there would be approximately twelve new poles spaced between approximately 150-500 feet apart, with foundations or directly embedded. Nine of these poles would be constructed within the median in Lafayette Street. The new pole structures would be designed to allow SVP to install 60kV underbuilt lines as well.

4.9.1.2. Option 2 - Underground Route Segment

Under Option 2, the Project would be underground beneath Lafayette Street from near NRS to approximately 300 feet south of the intersection of Lafayette Street and Agnew Road, and then overhead south of Agnew Road to KRS. The underground option would include nine 8-inch conduits for electrical and three 4-inch conduits for communication. Option 2 would require two large overhead riser structure poles (see Figure 4-2, Typical Pole Types, 230 kV Riser Pole) where the route transitions from overhead to underground near NRS, and from underground to overhead near Agnew Road. Additionally, two large below grade transmission vaults would be installed, spaced approximately 100 feet apart near Hope Drive.

The underground option would be designed to accommodate voltages of 230 kV but would be energized at 115 kV. Based on preliminary analyses, the underground option would only be able to deliver about 83% of the power that the overhead option would be able to provide at 115 kV, due to heat dissipation requirements. The power delivery amount further declines at 230 kV, to 79.9%. Based on the current design, which was determined to be the most efficient for meeting project goals, the underground option would not allow for additional conductors within the duct bank. If additional capacity is required after the construction of the Project, such as future 60 kV lines, a new trench or overhead transmission line would need to be constructed.

4.10. Project Objectives

The objective of the Project is to increase SVP's system capacity and reliability. The transmission line will allow energy to be balanced and redistributed within SVP's transmission receiving stations. This line will allow SVP to serve load growth projected based on SVP's forecasted load growth within the City over the next several years.

4.11. Project Components

4.11.1. 115 kV Transmission Line

As illustrated in Figure 4-1, the majority of the new 115 kV transmission line would be constructed along the following streets: Lafayette Street, Bassett Street and Duane Avenue. The new route would require approximately 39 poles (if overhead). The transmission line would be built to support a 230 kV transmission line, but would be initially energized at 115 kV, allowing for future capacity expansion. The Project is being designed with enough distance in between the conductor wires, so it will be in compliance with current Avian Power Line Interaction Committee (APLIC) guidelines (APLIC, 2006).

New poles are anticipated to range from 85 to 150 feet tall (average height of 115 feet). The poles will be at their tallest where they cross existing distribution facilities north and south of Montague Expressway, where the line crosses Montague Expressway and the Bayshore Freeway, where the line exits NRS, and where the line enters KRS. The distance between poles would vary but they would typically be spaced between approximately 150 to 500 feet apart. The clearance between the ground and the sag of the new 115 kV line between poles is expected to be not less than approximately 32 feet. New transmission structures would consist of tubular steel monopoles with direct embedded foundations, drilled pier foundations, or sub-grade drilled pier foundations.¹ Dead-end and angle structures, and tangent structures² supporting multiple circuits, would require steel monopoles with a galvanized finish. Pole diameters for

¹ Sub-grade drilled pier foundations are functionally the same as drilled pier foundations except that the top of the pier and the bottom of the structure are installed below the existing ground level to reduce the above ground footprint.

² Tangent structures are the most common types of poles that are sequenced in a straight line. Dead-end structures are a type of power pole where conductors and ground wires are only pulled on one side, and are used when a transmission line ends, turns at a sharp angle, at major crossings such as highways or rivers, or if the line divides into different segments. These structures are designed to handle higher tension and are typically larger than tangent structures. Angle structures are used when wires come to the pole at an angle.

tangent structures would be generally 2 feet to 4 feet or less, while custom dead-end poles would have diameters in the range of 4 feet to 6 feet.

Figures 4-2 and 4-3 illustrate examples of typical structure types that would be used for the Project.

The underground segment, if selected, would be installed within Lafayette Street which is approximately 80 feet wide. The conductors would be installed in an approximately 3-foot by 4-foot underground duct bank at least 3 feet from the top of the grade to the top of the duct bank. The underground segment would require riser poles (see Figure 4-2, Typical Pole Types, 230 kV Riser Pole) at the points where the line transitions from overhead to underground, or underground to overhead.

Tangent structures (see Figure 4-3, Typical Pole Types, 230 kV Tangent and Dead-end Poles) would be embedded directly into the soil or on a concrete foundation up to approximately 20 feet deep and back-filled 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 Figure 4-3) 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 approximately 35 feet. The concrete foundations extend above the ground-line by 1 or 2 feet in most cases.

The proposed Project would adhere to National Electrical Safety Code (NESC) and California Public Utilities Commission (CPUC) General Order 95, which define separation of structures from adjacent buildings or other utility facilities. 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 (CPUC, 2018). The new overhead transmission structures would be in the median of Lafayette Street north of Agnew Road, otherwise they would follow the edge of roadways.

Between Agnew Road and Montague Expressway, nine existing poles would be removed and replaced with seven new poles, which would carry existing circuits as well as the new circuit. The new poles would include an underbuild,³ which will be designed for 115 kV but energized at 60 kV. South of Montague Expressway, four poles would be removed from the existing transmission line (to Norman Avenue) and replaced with four new poles. At some locations the poles will support a new 115 kV circuit as well as an existing 60 kV circuit and distribution and communication lines. Refer to Section 4.11.2 for further details.

4.11.2. Replacement of Existing Distribution and Telecommunication Lines

Some existing distribution lines and/or telecommunication lines along the proposed route would be transferred to the new poles to be underbuilt on the new poles. The existing, replaced 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 conductor and/or cables still attached at the lower levels. All of the existing conductors and cables are expected to be reused for the project.

4.11.3. Substation Modifications

The NRS and KRS substations are existing substations that would be expanded or rebuilt prior to the proposed Project. The work to be undertaken at NRS and KRS are not part of the proposed Project. As needed, the substation work will be coordinated with Project designers for the new transmission line. The

³ "Underbuild" means that a transmission or distribution line would be supported underneath a transmission circuit, on the same pole.

only change to NRS and KRS that will occur as part of the proposed Project is the placement of new poles within the substation to bring the new circuit to the appropriate substation rack.

Figure 4-1. Project Overview



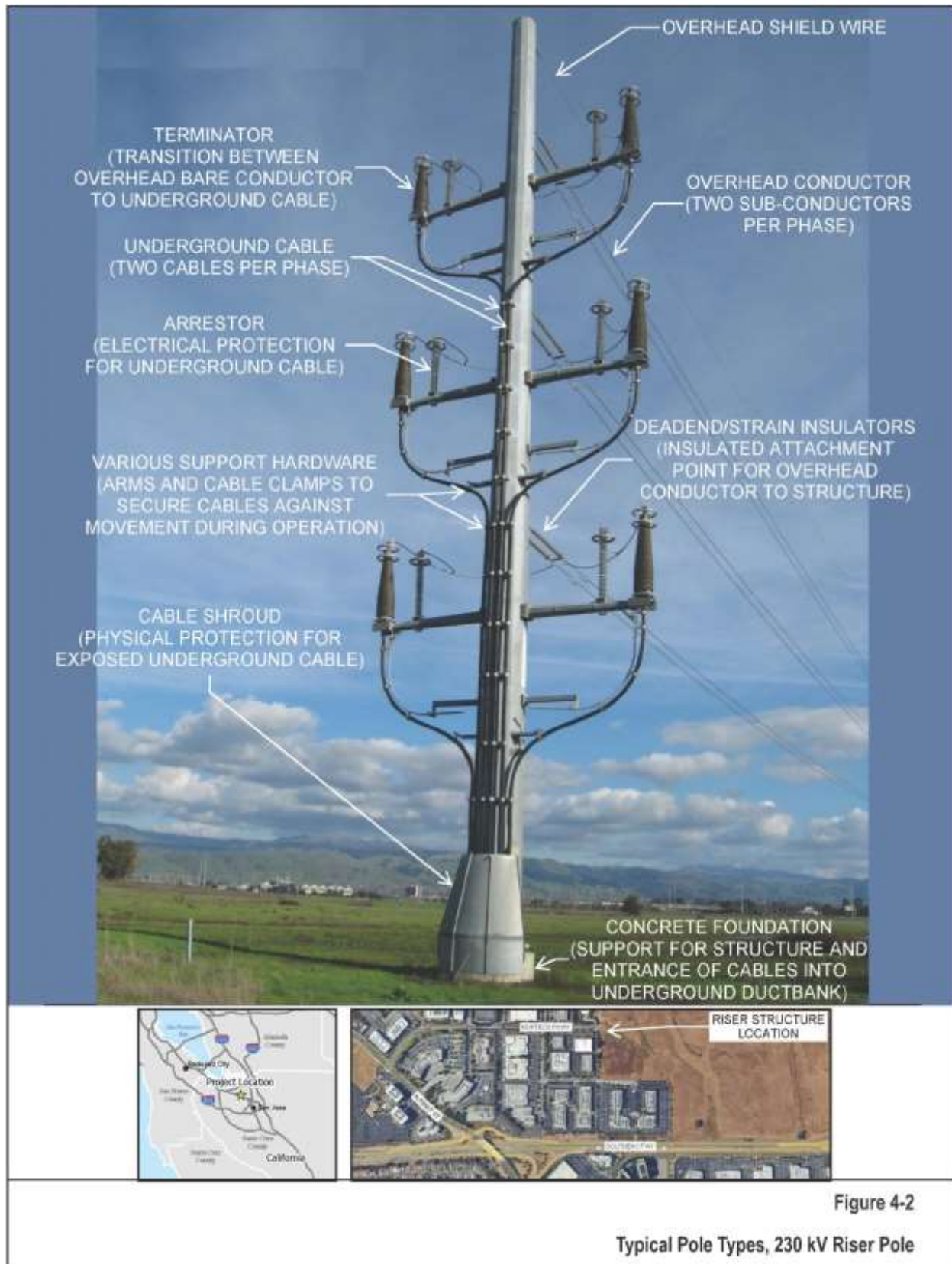
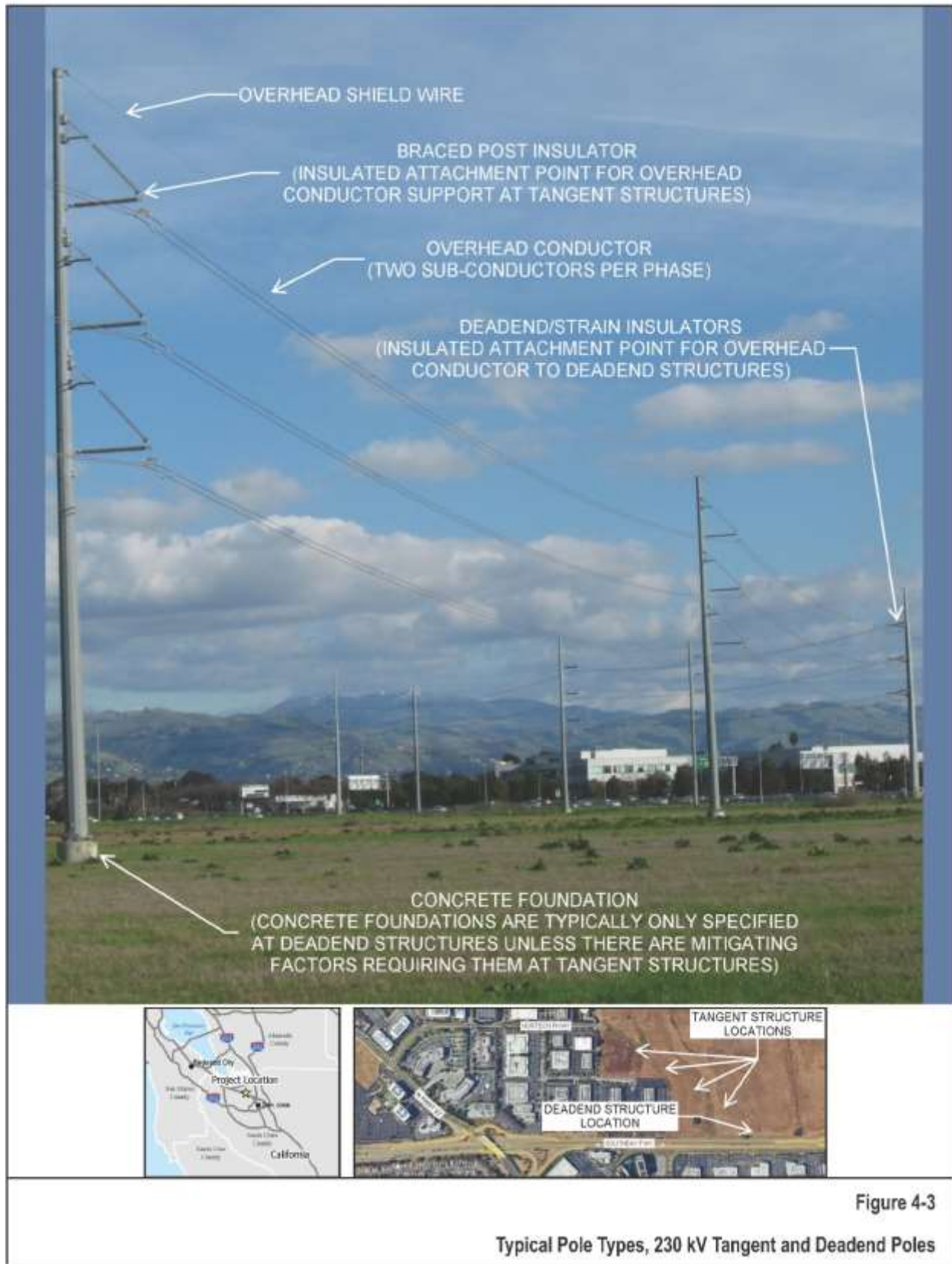
Figure 4-2. Typical Pole Types, 230 kV Riser Pole

Figure 4-3. Typical Pole Types, 230 kV Tangent and Deadend Poles

4.12. Project Construction Activities

4.12.1. 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 substations or 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. Any temporary fencing would typically be chain link with gates secured by a lock. A typical 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.

4.12.2. Work Areas

4.12.2.1. 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 115 kV transmission circuits would connect. The existing substations are undergoing rebuild or expansion efforts to modernize them. That work is not part of the proposed Project. New racks would be installed by those projects to support connections with the new conductors. Work at the substations would take place within the existing fenced areas.

4.12.2.2. 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 steel and wood poles. Work areas for new poles are expected to be located approximately every 300 to 500 feet. Where final design allows, power and distribution pole work would overlap. Final design would determine final pole locations.

Individual work areas for pole installation would typically be within the road ROW and SVP easements and extend approximately 50 feet in length. The width of Project encroachment into the public ROW and/or SVP's easement during pole installation and conductor stringing will be based on multiple factors, such as location of the pole in relation to the curb and private property lines.

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 may 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 have been made to minimize any removal of the trees located beneath the proposed transmission line however if the removal or trimming of a tree is deemed necessary as the project progresses, care will be taken (see Section 4.12.9, Vegetation Clearance). Existing distribution power lines along some segments of the ROW would be partially removed or relocated and underbuilt on the new structures and the existing poles would be removed. Some existing distribution poles would be left in place, such as poles that skip-span with colinear transmission line, while some existing structures may be topped to leave a distribution-only structure remaining.

4.12.2.3. Pull and Tension

Pull and tension activities 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 to install conductor 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). Temporary pull and tension work areas would typically be approximately 75 feet wide 150 feet long. Depending on the location, this temporary use area may be in the road ROW and/or in an easement obtained by SVP on private property.

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 most 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.

4.12.3. Construction Access

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.

4.12.4. Overhead 115 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.

4.12.4.1. 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 tubular steel poles to the site on a trailer and haul away any removed transmission or distribution poles. 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.

4.12.4.2. Transmission and Distribution Pole Removal

The existing transmission and 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 underbuilt 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.

4.12.4.3. Pole Installation

Expected dimensions for tubular steel poles are provided in Table 4-1, Summary of Approximate Pole Metrics. The line would be designed with approximately 40 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 transmission or distribution pole from a work area.

Table 4-1. Summary of Approximate Pole Metrics

Structure Feature	Approximate Metrics
Tubular Steel Pole	
Diameter	3–6 ft. (typical range, pole height dependent)
Foundation depth	20 to 35 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	40
Average work area at each site	4,000 sq. ft.
Total permanent footprint	Approximately 2,000 sq. ft.

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 stormwater best management practices (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 transmission or distribution line would be moved to the new pole and the old transmission or 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 35 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 concrete mixer truck capable of delivering 9 to 10 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.

4.12.4.4. 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 each pull and 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 transmission or 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.

4.12.4.5. Conductor Installation

Typically, the following seven (7) steps would be taken to install 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.

4.12.4.6. 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 Union Pacific railroad tracks as the transmission line crosses the tracks along Lafayette Street near NRS, near Agnew Road, and near Montague Parkway. Major road crossings include Lafayette Street, Montague Expressway, and the Bayshore Freeway.

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.

4.12.4.7. Existing Pole Removal

The existing wood transmission poles on the east side of Lafayette Street between Agnew Road and Montague Expressway, some wood poles along Bassett Street and some poles along Duane Avenue would be removed after the transmission and/or distribution line is transferred to the new structures. The old conductor would not be replaced and would be transferred to the new structures. 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. If poles are removed from paved areas, paving will be replaced to match existing surfaces.

4.12.5. Underground 115 kV Transmission Line Construction

This section describes the proposed construction methods for construction of the underground transmission line for Option 2, which would occur for approximately 0.74 miles within the southbound lanes of Lafayette Street from near NRS to Agnew Road. Installation of the underground transmission line, duct banks, and splice vaults would be completed using a cut-and-cover method (open trenching) along the route. The major underground construction activities would begin with vault installation, followed by trenching and duct bank installation, and, finally, cable installation. In addition, riser poles would be constructed at each end of the underground segment.

4.12.5.1. Trenching/Duct Bank Installation

Prior to trenching, SVP would notify other utility companies (via the Underground Service Alert [USA]) to locate and mark existing underground structures along the proposed alignments, and also would conduct exploratory excavations (potholing) to prove the locations for proposed facilities as needed.

After the route is marked, the pavement within the trenchline would be removed. Trenching activity requires one work crew progressively excavating and hauling off material. Upon reaching final trench excavation depth, a second work crew secures the trench walls via shoring. Once the shoring process is complete, a third installs PVC conduit to provide a raceway for the electrical cable. Upon completion of PVC conduit laydown, the trench is backfilled and the trench alignment temporarily paved. Final roadway restoration

and asphalt paving would be completed once the cable is fully installed, tested and released for operation. This avoids having to break the final pavement to replace any section of cable should it fail during testing.

Trenching would progress at an approximate rate of 50 feet per day. The length of open trench at any one time would typically range from 150 feet to 300 feet. Steel plating would be placed over the trench to maintain vehicular and pedestrian traffic across areas that are not under active construction. Traffic controls would also be implemented to direct local traffic safely around the work areas (see Section 5.17, Transportation). The total surface of the trench plates over backfilled areas would vary between approximately 100 to 500 feet in length each day until it has reached a surface large enough (typically 300 feet) for temporary pavement restoration. Temporary trench paving would likely occur once a week to minimize the amount of trench plates on the road.

No long-term road closures would be expected during trenching, although one-way traffic controls as well as short-term road closures of road segments up to 1,500 feet would be necessary to allow for certain construction activities and to maintain public safety.

As the trench for the underground 115 kV cable is completed, SVP would install PVC conduits and concrete encasement around the duct bank. The duct bank cover would measure at least 3 feet wide by 3 feet deep, including a thermal backfill and asphalt or dirt surfaces. The typical dimensions of a single circuit reinforced duct bank are approximately 3 feet 7 inches wide by 3 feet 4 inches deep, although typical dimensions may vary depending on soil stability and the presence of existing structures. The trench would be widened or shored where needed to meet California Occupational Safety and Health Administration (OSHA) safety requirements.

Where the electrical transmission duct bank would cross or run parallel to other substructures (which have operating temperatures at earth temperature), a minimum radial clearance of 12 inches would be required. These substructures include gas lines, telephone lines, water mains, storm lines, and sewer lines. In addition, a 5-foot minimum radial clearance would be required where the new duct bank crosses another heat-radiating substructure at right angles. A 15-foot minimum radial clearance would be required between the duct bank and any parallel substructure whose operating temperature significantly exceeds the normal earth temperature. Such heat-radiating facilities may include other underground electric transmission circuits, primary electric distribution cables (especially multiple-circuit duct banks), steam lines, or heated oil lines.

SVP would identify other utilities during final design, evaluate their proximity and potential for induced current and/or corrosion, and in coordination with the utility-system owner, determine whether steps are necessary to reduce the potential to induce current or cause corrosion. SVP would take the necessary steps in coordination with those utility system owners to minimize any potential effects through measures, such as increased cathodic protection or utility relocation. The steps are summarized as follows:

- During final design, prepare study of corrosion and induced currents.
- Send results of study to each affected utility system owner for review and comments.
- Owners submit requirements for protection of each of their facilities.
- SVP makes changes accordingly or compensates owner for future protection measures, per the owner's preference.

Once the PVC conduits are installed, thermal-select or controlled backfill would be transported, placed, and compacted. A road base backfill or slurry concrete cap would be installed, and the road surface would be restored in compliance with the City requirements. While the completed trench sections are being restored, additional trenchline would be opened farther down the street. This process would continue until the entire conduit system is in place.

All backfilling material would be engineered material called flowable thermal concrete (FTC), and flowable thermal backfill (FTB). Each has unique properties specific to its application, while both are designed to have thermal characteristics for heat displacement. For a typical trench, the bottom 2 feet encases the PVC conduit with FTC, while the remainder of the trench would be filled with “diggable control density fill” FTB to the roadway sub-base level. From that point, all restoration would be based upon matching the street’s existing sub-base and surface, i.e., asphalt, concrete, or combination of the two. The excavated material would not be used as backfill. The estimated total amount of excavated materials to be removed for trenches, duct banks, and vaults is 6,000 cy. The final volume of excavated materials may vary, depending on what work is required to avoid existing underground utilities.

The total duration of trench excavation and manhole installation is estimated to take approximately four months. Cable pulling, discussed in Section 4.12.5.3, is a standalone operation that would be performed after the vaults are installed, the duct bank is fully poured, and the trench backfilled and temporarily paved. Final paving restoration would be scheduled after the cable is fully installed and operative. The City encroachment permit would likely require a full lane of pavement restoration which in turn would require a two-lane closure over a 1,500 foot work area. Final paving would take approximately 15 days along Lafayette Street, and the total duration of paving and cleanup would take around 6 weeks.

Equipment necessary for trenching in closed lanes include pavement saw cutting equipment, pavement grinder, excavators, and dump trucks. Section 4.12.7 lists all equipment expected to be used during construction. SVP expects four dump trucks to be used to haul trench and excavation materials and import backfill to the project. The number of daily total haul truck trips would depend upon the rate of the trenching, which is estimated to progress at an approximate rate of 50 feet per day over 6 months. Jackhammers would be used when needed to break up sections of concrete that the saw-cutting and pavement-breaking machines cannot reach. Other miscellaneous equipment would include a concrete saw, various paving equipment, and pickup trucks. In general, no equipment would be left at the trench site overnight, with the exception of an excavator.

4.12.5.2. Vault Installation

The underground segment would require two (2) splice vaults to be installed: the first vault would be installed approximately 1,575 feet measured from the riser pole near Agnew Road and heading north/northwest along Lafayette Street, and the second vault would be installed approximately 100 feet further north/northwest from the first one. The typical complete pre-cast vault installation would take 4 to 7 days, working 10 hours per day from breaking ground to finishing grade. For each vault, the excavation would be approximately 34 feet long, 14 feet wide and up to 15 feet deep. Excavation for vaults of this size would require shoring components such as driven sheet piles or slide rail steel sheeting. Once the initial excavation and shoring is installed, preparation of the sub-base would consist of the installation of crushed rock for leveling purposes. If present, groundwater would be tested and either pumped out to a controlled containment or discharged as would occur during trenching.

Once the vault preparation steps (excavation, shoring and finish grade leveling) are completed, setting the vault is performed via sectional lifts of the three vault pre-cast sections using either a hydraulic or a lattice type crane. With all sections of the vault set in place, backfilling can start as the shoring is removed.

Lane closures would be required at each vault location according to the following sequence:

1. Vault installation would be performed prior to trenching/duct bank installation, and would require an approximately 4- to 7-day multi-lane closure for each vault.
2. Conduit cleaning/proofing would be performed after the duct bank is completely installed and backfilled. This requires an approximately 2-day lane closure.

3. Cable pulling would require an approximately 2-day lane closure per cable phase (approximately 6 total days of lane closure).
4. Racking/splicing would require approximately 2 to 3 days at each of the two vaults

The major equipment required for vault installation would consist of an excavator, pickup trucks, end dump trucks, stake trucks for material, 75-ton crane, crane riggers truck, tractor trailers for sheet piling delivery, tractor trailers for delivery of precast concrete manhole sections, and possibly water trucks and/or containment water tanks (see also Section 4.12.7).

4.12.5.3. Cable Pulling, Splicing, and Termination

The proposed cable system would consist of three major components: the cable, splices that connect cable sections, and terminators that connect the cable to the equipment at the substations. Cable installation would occur after the underground vaults and duct banks are installed.

Cable Pulling

The cable for the proposed Project would consist of six individual cables (two per electrical phase) and a communication fiber optic cable. Pulling between one riser structure and one vault typically would take approximately 2 to 3 days, working 10 hours per day. To pull each cable through the duct bank, a cable reel would be placed at the end of a duct bank section at the riser structure, and a pulling rig would be placed at the other end of the duct bank section at the vault. With a small rope called a “fish line,” a larger rope would be pulled into the duct. The large rope would be attached to pulling eyes on a conductor end, and the large rope would pull the conductor into the duct. To ease pulling tensions, a lubricant would be applied to the conductor as it enters the duct. The three electric phases and one communication cable would be pulled through their individual ducts at the rate of two of the three sections between the riser and vault per day. The project would require the pulling between riser and vault to be repeated twice for each vault. One pull would be from the northern riser to the vault and the second pull would be from the southern riser to the vault. At the vault location the two cable pulls would be spliced together.

Cable Splicing

Prior to starting the actual splicing, the splice vaults would be outfitted with steel racks that would ensure the cable splices are securely affixed to the vault’s inner walls. A splice trailer would be positioned adjacent to the vault manhole openings, and a mobile power generator would be located directly behind the trailer. The vaults must be kept dry to prevent water or impurities contaminating the unfinished splices. Racking and splicing is estimated to take approximately 2 to 3 days at each vault.

Termination

At the southern end of the underground segment (Option 2), the conductors would transition to overhead on riser poles approximately 120 tall. Self-supporting riser structures require steel-reinforced concrete pier foundations. A typical foundation is about 5 feet to 8 feet in diameter and can range in depth from 20 feet to approximately 35 feet. The concrete foundations extend above the ground-line by 1 or 2 feet in most cases.

4.12.6. 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 35 feet deep, about 1,758 cubic feet of water would be required at each foundation site.

4.12.7. 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. Construction of Option 2 would include underground construction, as well as overhead construction, and therefore may use all the equipment listed. Option 1 would only include overhead construction, and therefore would only use the equipment listed as overhead construction. 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	
Overhead Construction			
Survey	1 to 2	1 Pickup truck	
Auger Holes for 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
Steel Pole Installation and Transmission/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	
Conductor Installation (includes moving transmission/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	

Activity	People	Quantity of Equipment	
Underground Construction			
Underground Delivery and Set-Up	2	1 Rigging truck 1 Small mobile crane 1 Mechanics truck (as needed)	2 Shop vans 1 Two-ton flatbed truck
Underground Transmission Line	5 per crew	4 to 10 Pickup trucks 2 Two-ton flatbed trucks 2 Flatbed boom trucks 1 Rigging truck 1 Mechanic truck 1 Winch truck 1 Cable puller truck 2 Cement trucks 2 Shop vans 2 Crawler backhoe 2 Large backhoe 4 Dump trucks 1 Small mobile crane	1-2 Large mobile crane(s) 2 Cable reel trailers 1 Splice trailer (40-foot) 1 Rollers 1 Paver 1 to 3 Portable generators As needed: • Air compressors • Air tampers • Baker (water) storage tanks • Pumps • Shoring boxes • Tank trucks

4.12.8. Construction Traffic and Circulation

Construction would require temporary lane closures along various public and private roads within the project area over the approximately 14-month construction duration for the overhead alignment (Option 1). Temporary lane closures would be coordinated with local agencies. SVP would obtain encroachment permits to conduct work in public ROWs in accordance with applicable City requirements. The underground alignment for the northern segment (Option 2) would require a longer construction duration and greater traffic control and longer lane closures.

4.12.9. Vegetation Clearance

Some vegetation and tree removal or tree trimming may 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 or in the median of Lafayette Street (see Figure 4-1, Project Overview) where many trees currently exist. Most of the 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. The lowest conductor height would be approximately 32 to 40 feet above the ground. In general, trees that are located below the 115 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. The project is being designed to limit tree removal as much as possible and the existing trees are within the 25-30 feet height range.

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 115 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.

4.12.10. 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 and steel 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.

4.12.11. 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.

4.12.12. Construction Schedule

The construction phase is expected to take approximately 14 months for the overhead option and is anticipated to be completed by early 2028. The underground option would take significantly longer. 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.

4.13. Operations and Maintenance

Once the new NRS to KRS 115 kV transmission 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.

4.14. Other Permits and Approvals

SVP would obtain permits for the Project, as needed, from federal, State, and local agencies. Table 4-3, Permits that May be Required for the Proposed Project, lists permits and approvals that may be required for Project construction.

Table 4-3. Permits that May Be Required for the Proposed Project

Agency	Jurisdiction	Requirements
Federal		
U.S. Fish and Wildlife Service (USFWS)	Potential impacts to federally listed species or critical habitat.	Section 7 consultation (through federal review process, likely not required)
Federal Aviation Administration (FAA)	Potential impacts to air traffic	An FAA Part 77 Notice would need to be filed for objects affecting navigable airspace, allows FAA to identify potential hazards in advance.
Union Pacific Railroad	Railroad ROW	Railroad encroachment permit
State		
Regional Water Quality Control Board, Region 2 (San Francisco Bay)	Consistency with state water quality standards	401 Certification - Storm Water Construction General Permit 99-08-DWQ - National Pollutant Discharge and Elimination System (NPDES) Permit - Waste Discharge Requirements (WDRs)
California Department of Fish and Wildlife (CDFW)	Protection of state-listed species	Incidental Take Permit (likely not required)
CDFW	Protection of waters of the State	1601/1602 Permits (likely not required)
Local/Regional Agencies		
City of Santa Clara	Construction, modification, or alteration of power line facilities	- New or expanded ROW Grant - Encroachment Permit including Traffic Control Plans

4.15. Electric and Magnetic Fields Summary

4.15.1. Electric and Magnetic Fields

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, Appendix G, EMF Report, provides information regarding EMF associated with electric utility facilities and the potential effects of the proposed Project. 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 (ELF, 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. However, due to input received during the public scoping process, this discussion has been added, which discusses the results and impacts from the EMF study that was prepared. See Appendix F, Scoping Report, for a summary of the comments received during the scoping process, and Appendix G for the EMF Report.

4.15.2. EMF in the Proposed Project Area

Residents near the proposed Project have expressed concerns about the location and the close proximity to their homes of the overhead 115 kV transmission line (See Appendix F, Scoping Report for a summary of comments received). These concerns are focused on the east side of Lafayette Street, near the northern portion of the Project that is proposed in the median of Lafayette Street. SVP does not have adopted practices regarding EMF, so this section discusses general practices regarding EMF as well as guidance provided by CPUC as part of General Order 131-D.

Magnetic field strength is a function of both the electric current carried by the wires, and the configuration and design of the three conductors that together form a single circuit of an electric transmission line. Magnetic field strengths for typical transmission power line loads at the edge of an overhead transmission system right-of-way generally range from 10 to 30 milliGauss (mG) (NIEHS, 2002). Exposure to EMF occurs in the community from sources other than electric transmission lines. Research on ambient magnetic fields in homes indicates that levels below 0.6 mG could be found in half of the studied homes in the centers of rooms, and that the average levels in the homes away from electrical appliances was 0.9 mG. Immediately adjacent to appliances (within 12 inches), median field values are much higher, for example: 4 to 8 mG near electric ovens and ranges, 20 mG for portable heaters, or 60 mG for vacuum cleaners (NIEHS, 2002).

Table 4-4. Estimated Magnetic Field Data for Household Electronics

Item	Magnetic Field Measurements at 1 foot distance* (mG)
Ceiling Fans	3 to 30
Electric Ovens	4 to 5
Electric Ranges	8 to 30
Electric Can Opener	40 to 300
Microwave Ovens	4 to 200
Washing Machines	7 to 30
Portable Heaters	20 to 40

Item	Magnetic Field Measurements at 1 foot distance* (mG)
Vacuum Cleaners	60 to 200

Source: NIEHS 2002

* Values shown are presented for the median EMF value, to the highest EMF value.

SVP has prepared an EMF Study, included as Appendix G to this IS/MND, which presents calculations conducted along the proposed Project route to estimate the magnetic fields strength when measured 1 meter above ground at various distances, ranging from directly underneath to 60 feet away, from the proposed route centerline. The EMF study analyzes the existing conditions of currently operating power facilities, as well as future conditions after installation of the proposed transmission line. The EMF values presented represent the highest expected magnetic field strength for all conditions represented in each segment. Due to this, only Option 1, Overhead, was analyzed in the EMF report, because EMF values are lower for buried transmission lines, especially for lines that would be buried deeper than 5 feet.

The impacts of EMF from the proposed Project are described based on load data for existing conditions (2024) and 2028, when the Project would be energized.

The EMF study breaks the Project into 19 segments for analysis. Segments 1 through 6 are the nearest segments to residential land uses, so this discussion will focus on those segments, as this is where the most sensitive receptors are located. Additionally, the majority of the scoping comments came from residents located to the east of the line, so the data in Table 4-4, below is presented for locations 60 feet to the east of the Project's centerline. See Appendix G for more details on the methodology used and the full set of data.

Table 4-5. Estimated Magnetic Field Data for Sensitive Receptor Community to East of Project

Segment	Existing 2024		Future 2028	
	Normal Load (mG)	Peak Load (mG)	Normal Load (mG)	Peak Load (mG)
1	0.0	0.0	16.0	20.0
2	6.4	8.0	14.3	17.9
3	0.9	1.1	14.2	17.7
4	0.4	0.5	13.5	16.8
5	1.8	2.3	11.9	14.8
6	1.8	2.3	11.9	14.9

Source: Appendix G, EMF Report

Notes:

- "Peak Load" is defined as 100% of the estimated peak load as reported by SVP under typical system operations. "Normal Load" is defined as 80% of the estimated peak load.
- The Magnetic Field Values are the estimated resultant RMS magnetic field at 60 feet east from Project centerline, at a height of 1 meter above the ground.

As shown in Table 4-4, the Proposed Project, operating at Peak Load, would result in an increase of EMF ranging from approximately 10 mG (in segment 2) to 16 mG (in segment 3). Operating at normal load, this increase would range from approximately 8 mG (in segment 2) to 16 mG (in segment 1).

As stated above, there is no defined or adopted threshold for EMF impacts, since there is no agreement among scientists that EMF creates a potential health risk. However, comparing the estimated EMF values of average household appliances presented in Table 4-4, with the EMF values presented in Table 4-5, reveals that the EMF values present within homes can exceed the amount of EMF that is emitted at the edge of the right of way.

4.15.3. EMF Management Plan for the Proposed Project

The proposed Project is not required to mitigate EMF. However, due to extensive public concern, SVP has

reviewed the recommendations by the CPUC for EMF Design Guidelines (CPUC 2006). The CPUC requires utilities to implement “no-cost” and “low-cost” measures to reduce public exposure to EMF. Although SVP is not required to follow CPUC guidelines, SVP has agreed to implement the EMF Design Guidelines below in the project to the extent feasible to reduce EMF within residential areas.

The EMF Design Guidelines include the following measures, any or all of which may be selected to reduce the magnetic field strength levels from the proposed transmission line:

- Increasing the distance from electrical facilities by:
 - Increasing structure height or trench depth
 - Locating power lines closer to the centerline of the corridor
- Reducing conductor (phase) spacing; and
- Phasing circuits to reduce magnetic fields.

Final engineering of pole locations and pole spacing would include seeking opportunities to strategically reduce EMF through implementation of the measures listed above.

4.16. 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 a Mitigated Negative Declaration because the Initial Study concluded 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 is provided.

However, in developing the proposed Project, SVP did consider multiple possible route alternatives and options in the project area that would achieve the project objectives. The proposed Project was chosen for the following reasons:

1. the chosen route options have good reliability from an operational and power delivery perspective;
2. the selected route options best meet the objectives of the project, including schedule considerations, by transferring the power flow from the various substations to the desired transmission line circuit(s);
3. the chosen route options have fewer engineering design challenges and fewer permitting challenges than the other possible routes; and
4. the route options provide the best solutions for avoiding construction that is outside of City ROW, near the San Jose International Airport or along the railroad ROW.

5. ENVIRONMENTAL ANALYSIS

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?	☐	☐	☒	☐
(b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	☐	☐	☐	☒
(c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
(d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Significance criteria established by CEQA Guidelines, Appendix G.

5.1.1. Setting

The evaluation of aesthetics under CEQA considers the visual aspects of a project and how they affect the visible environment in which they are proposed to be placed. This aesthetics section describes the existing visual character of the Project area, the visual characteristics of the proposed Project, and the visual changes that would be associated with the construction and operation of the Project.

Regional Context. The Project would install an approximately 2.24-mile-long transmission line in the City of Santa Clara (City). The line would extend from SVP's Northern Receiving Station (NRS) on Centennial Boulevard southeast of Levi's Stadium to SVP's Kifer Receiving Station (KRS) on Lafayette Street between the Bayshore Freeway (US 101) and the Central Expressway. The majority of the route would be along Lafayette Street and Bassett Street except where it approaches KRS, where the alignment would cross over Hwy 101 to reach KRS on the south side of the freeway. Two options are being considered for the line. Under Option 1 the line would be entirely overhead on tubular steel poles. Under Option 2, the line would be underground for 0.74 miles, from NRS south to Agnew Road, where it would return to aboveground and continue to KRS on tubular steel poles. The only difference in the options is on Lafayette Street between NRS and Agnew Road, where the alignment would be either overhead or underground. South of Agnew Road the alignment would be overhead under both options.

5.1.1.1. Methodology

Visual or aesthetic resources are the visible natural and cultural features that contribute to the public's enjoyment of the viewed environment. Visual 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 at and near the Project site 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; (5) the extent to which changes would be visible and the duration of views, and (6) compliance with State, County, and local policies for visual resources. The evaluation of potential changes in the area's visual character is presented below.

5.1.1.2. Existing Landscape Setting and Viewer Characteristics

This section discusses the existing visual character of the region, existing visual quality in the Project area, and viewer concern and 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 Vicinity. Viewers of the Project would be primarily motorists on Lafayette Street, workers and patrons at commercial and light industrial facilities along the street, and residences fronting on Lafayette Street.

As shown in Figure 4-1, the proposed Project would be located at existing substation properties and along an existing road network in an urbanized area of the City. The figure also shows other existing transmission lines in the area. The project vicinity is highly developed, with primarily residential properties (apartments and townhouses) along the northern end of the alignment and primarily commercial and light industrial properties along the southern end of the alignment.

The Project originates at NRS. Levi's Stadium and tall tubular steel transmission towers are dominant visual features at and around NRS. The upper portions of existing poles and other structures within NRS are visible behind a surrounding wall. The NRS is bounded on the north by a fence and landscaping separating it from the San Francisco 49ers training facilities and Levi's Stadium. On the west side of NRS is a fence, a parking lot with storage facilities, water tanks, and San Tomas Aquino Creek. To the east, the NRS site is within a masonry wall with a parking area outside of the wall. A rail line, Lafayette Street, and residences are farther east, with the housing approximately 225 feet from the substation wall. On the south side of NRS is a masonry wall, with an 80-foot underground water utility right-of-way separating the NRS wall and the rear of residences on Gianera Street. The residences to the east and south face away from the NRS, with access by way of interior roads.

The transmission line from NRS would extend south along Lafayette Street, which is 4 lanes wide with a median divider and a fenced rail line on its west side. Figure 5.1-1 shows the view looking north from near an existing pole outside of the wall surrounding NRS. The slightly elevated rail line is fenced off, and an existing tubular steel pole located on the east side of Lafayette Street is visible in the center of the image. Just south of NRS, the rail line and Lafayette Street are separated from residences to the west by existing vegetation and an approximately 12-foot-high wall. Figure 5.1-2 shows the wall separating the rail line and Lafayette Street from the residences west of the Project alignment in this area. This barrier extends approximately 0.5 miles from NRS to 2nd Street near Agnew Road. On the east side of Lafayette Street are residential areas that primarily back on the street and are separated from the street by fencing and vegetation. Nearing Agnew Street, apartment and condominium buildings face Lafayette Street on the east side of the street but are set back, often with trees between the buildings and the street. Commercial land uses are also intermixed on the east side of Lafayette Street.

Under Option 1, tubular steel poles would be installed in the median of Lafayette Street, from NRS to the intersection of Lafayette Street and Agnew Road. After this point, the transmission line would transition to the east side of Lafayette Street and enter Bassett Street and continue south.

Under Option 2, the alignment would begin overhead at NRS to the median of Lafayette Street where it would transition underground in the median of Lafayette Street continuing south to the intersection of Lafayette Street and Agnew Road. The alignment would transition to overhead just south of the intersection of Lafayette Street and Agnew Road, on the east side, then continue overhead to KRS. The underground duct bank for the transmission line would be at least 6 feet below grade at the top of the

duct bank. It would be constructed using cut and cover techniques, with the duct work constructed in an open trench and then covered and the ground surface restored to its previous condition. Vaults to provide access to the ducts would be located along its length. In some locations, such as south of the intersection of Lafayette Street and Agnew Road, existing lower voltage circuits would be attached to the new NRS-KRS poles and existing poles would be removed.

Figure 5.1-3 illustrates the placement of poles in the median of Lafayette Street under Option 1. Typical distance between poles is approximately 350 feet, depending on final engineering. The poles would be approximately 85 to 150 feet tall. Tangent structures supporting the line would be generally 2 feet to 4 feet in diameter, while dead-end poles would be 4 feet to 6 feet in diameter.. The bird's eye view in Figure 5.1-3 if looking north from near Hope Drive at Lafayette Street toward NRS and Levi's Stadium and illustrates how the 115 kV poles would appear in the existing urban setting. In some locations, such as south of the intersection of Lafayette Street and Agnew Road, existing lower voltage circuits would be attached to the new NRS-KRS poles and some existing poles would be removed. The poles to be removed would be determined during final engineering.

For both Option 1 and Option 2, the remainder of the line would be built overhead. South of Agnew Road, the overhead line would be located on the east side of Lafayette Street. To the east is Agnews Historic Park and associated office uses set back from the road, with most of the area closest to Lafayette Street used for parking. To the west, Lafayette Street is separated from residences by the rail line, a sparsely vegetated open area, and a local street parallel to Lafayette Street. These residences are approximately 200 feet from the Lafayette Street median.

The alignment continues on the east side of Lafayette Street until it is just north of the Montague Expressway, where it would transition to the west side of Lafayette Street and cross over the expressway on taller poles and continue on the west side of Bassett Street and the rail line, extending south along Bassett Street, which parallels Lafayette at this location. Figure 5.1-4 is an image from Bassett Street looking north. The rail line, with Lafayette Street beyond are visible through the overpass supports. Along Bassett Street to the west are commercial or light industrial uses. To the east, on the east side of Lafayette Street is a mix of residential, commercial and light industrial uses. Bassett Street and the transmission line turn south through an area of commercial and light industrial uses before the transmission line crosses over US 101 (Bayshore Freeway) and enters KRS.

The proposed Project 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 (Caltrans, 2021).

Existing Views in the Project area. Potential views of the proposed Project are limited by the existing structures, walls, and vegetation along the alignment. NRS and KRS are behind screening walls and set back from nearby roads. These facilities are already visual elements of the local viewscape. The few additional poles and structures needed at these facilities to accommodate the transmission line would be consistent with, and similar to those poles and structures already in place. Views of the proposed transmission line itself would be limited by the presence of buildings and vegetation which would screen views from most locations perpendicular to the alignment. (In particular, see Figures 5.1-2 and 5.1-3). The visual complexity of this urban setting includes transportation infrastructure (roads and rail line), vertical elements (existing poles and signs), and buildings. Motorists on Lafayette Street would view the new poles in this context, and their experience would be fleeting as they drive. For residences fronting on Lafayette Street, the poles and conductor would be a more prominent visual experience, but the poles would be widely space and would not represent a substantial change in the existing urban visual context.

Figure 5.1-1. View Near NRS looking North**Figure 5.1-1****View Near NRS looking North**

Figure 5.1-2. Wall Separating Residences and Lafayette Street**Figure 5.1-2****Wall Separating Residences and Lafayette Street**

Figure 5.1-3. Bird's Eye Illustration of Project Poles on Lafayette Street

Figure 5.1-4. View from Bassett Street of Crossing at Montague Expressway**Figure 5.1-4****View from Bassett Street of Crossing at Montague Expressway**

Regulatory Background

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

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

Visual Impact Assessment Methodology

This visual analysis considered visual sensitivity and visual change to assess the visual effects of the proposed Project on the existing urban landscape. This approach includes a characterization of the visual sensitivity of the existing landscape, the characteristics of existing visual changes occurring and apparent in the landscape, and the characteristics of the proposed Project.

Visual sensitivity consists of three components: visual quality, viewer concern, and viewer exposure. Visual quality notes the existing built structures and natural landscape features that contribute to overall visual quality. Viewer concern can be described as the personal expectations for the landscape that are held by the viewing public. Viewer exposure also affects a landscape's overall visual sensitivity. Landscapes that have very low viewer exposure, based on visibility, viewing distance, number of people who view the landscape, or duration of time that the landscape can be viewed, will tend to be less sensitive to overall visual change. Landscapes with higher viewer exposure are more sensitive to overall visual changes. Overall visual sensitivity can be rated as Low, Moderate, or High.

Project-induced **visual change** could result from aboveground facilities, vegetation removal, component size or scale relative to existing landscape characteristics, and the placement of project components relative to existing developed features. Visual change can also be affected by the degree of available screening by vegetation, landforms, and/or structures; distance from the observers; atmospheric conditions; and angle of view. Visual change describes the degree of actual visible change introduced by a project. The fundamental elements of visual change include visual contrast, visual dominance, and scenic view obstruction. Components of visual change include contrast, dominance, and obstruction. Visual contrast refers to visual discrepancies of form, line, color, or texture of a project against the existing landscape. Visual dominance refers to the degree to which this contrast would demand the attention of casual viewers. Scenic view obstruction refers to the degree to which the project would block or intrude upon scenic view corridors, particularly those identified in public policies. Overall visual change is rated on a scale of Low, or Moderate, or High.

Given the highly developed and complex visual environment within which the Project would occur, the visual sensitivity along the alignment is considered low to moderate. The spacing of visual elements (poles), the limited duration of views by motorists, and the limited number of views from residences results in the visual change being low to moderate.

In addition, the Project is evaluated for conformance with applicable local plans and policies. Adopted expressions of local public policy pertaining to visual resources are given great weight in determining both visual quality and viewer concern.

The determination of which aesthetic changes cross a threshold of “substantial adverse effect” or degradation is based upon the criteria described above and in Table 5.1-1, Visual Impact Significance Criteria. This table was used primarily as a consistency check, as determinations of visual sensitivity and visual change were based primarily on analyst experience and site-specific circumstances.

Implicit in this rating methodology is the acknowledgment that for a visual impact to be considered significant two conditions generally exist: (1) the existing landscape is of reasonably high quality and is relatively valued by viewers; and (2) the perceived incompatibility of one or more elements or characteristics of the project tends toward the high extreme, leading to a substantial reduction in visual quality.

Table 5.1-1. Visual Impact Significance Criteria

Visual Sensitivity	Visual Change				
	Low	Low to Moderate	Moderate	Moderate to High	High
Low	No impact ¹	No impact	Less Than Significant ²	Less Than Significant	Less Than Significant
Low to Moderate	No impact	Less Than Significant	Less Than Significant	Less Than Significant	Less Than Significant with Mitigation Incorporated ³
Moderate	Less Than Significant	Less Than Significant	Less Than Significant	Less Than Significant with Mitigation Incorporated	Less Than Significant with Mitigation Incorporated
Moderate to High	Less Than Significant	Less Than Significant	Less Than Significant with Mitigation Incorporated	Less Than Significant with Mitigation Incorporated	Potentially Significant Impact ⁴
High	Less Than Significant	Less Than Significant with Mitigation Incorporated	Less Than Significant with Mitigation Incorporated	Potentially Significant Impact ⁴	Potentially Significant Impact

1 No Impact – Impacts may or may not be perceptible but are considered minor in the context of existing landscape characteristics and view opportunity.

2 Less Than Significant – Impacts are perceived as negative but do not exceed environmental thresholds.

3 Less Than Significant with Mitigation Incorporated – Impacts are perceived as negative and may exceed environmental thresholds depending on project and site-specific circumstances but are Less Than Significant with mitigation incorporated.

4 Potentially Significant Impact – Impacts with feasible mitigation may be reduced to levels that are not significant or avoided all together. Without mitigation, significant impacts would exceed environmental thresholds.

Aesthetics Impacts

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

LESS THAN SIGNIFICANT IMPACT. The flat topography and developed character of this part of the City 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 over 5 miles away. Views from these locations would overlook the highly developed urban landscape, within which the transmission line would be indiscernible among the buildings, trees, and existing power lines in the city. The project elements are consistent with the visual character of a highly developed urban area and are similar in nature to existing transmission infrastructure in the

City, which results in a low level of visual change to the Project would therefore result in a less than significant 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 limited tree removal or trimming. The Project site is not near or visible from a scenic highway. Based on these conditions, 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 in a highly urbanized area with primarily residential, light industrial, and low intensity office/R&D land uses, as defined in the City's General Plan. The transmission line alignment would follow existing roads and a rail line.

In the short term, the presence of equipment and vehicles may be noticeable to the nearby residences, businesses, and persons using local roads. However, construction activities would be temporary.

Some tree removal or trimming overhanging vegetation may be required to accommodate the Project and comply with safety requirements. During the final Project development processes, in consultation with the City arborist or City-designated arborist, it would be determined what specific trees may need to be removed for the Project or that with special protection measures are needed, such as by adjusting a pole location, to avoid a tree removal. Initial evaluation indicates that for Option 1 (Overhead), an estimated 2 trees would need to be removed and 33 trees pruned. Under Option 2 (Partial Underground), an estimated 2 trees may need to be removed and 32 trees pruned. SVP consults with the City arborist to determine whether trees need to be replaced and where any replacements would be located. Vegetation removal and trimming would not be a significant change within the overall landscape, due to the highly urbanized character of area, which is dominated by buildings, infrastructure, and roadways.

The proposed Project would be consistent with applicable zoning, regulations and 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?

LESS THAN SIGNIFICANT. Construction activities would occur during daylight hours and would not include nighttime work that would necessitate the use of lighting within work areas. The surfaces of new structures and enclosures would be non-reflective and would not create glare. This would include poles, conductors, and any required ancillary equipment such as transformers or switchgears. The substations are existing facilities with existing lighting. The streets along the alignment have existing street lighting and adjacent buildings have private residential and commercial lighting.

There is existing lighting from the residential, commercial, and industrial developments along the project alignment. No new lighting is expected to be required by the Project. However, if new lighting were required due to the Project's proximity to the airport, it would occur in the vicinity of the KRS, extending north of Bayshore Freeway. This lighting would be minimal and would be intended to be viewed from an airplane for safety reasons. The visual change would be low, because of existing sources of light in the area, and it would not create a new source of substantial light. Final required lighting would be subject to final design and FAA review. If required during construction, any lighting would be minimal and would not adversely affect the day or nighttime views in the area for an extended period, therefore, the impact would be less than significant.

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) pre-pared 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 State-wide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
(b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
(c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code §12220(g)), timberland (as defined by Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code §51104(g))?	☐	☐	☐	☒
(d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
(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?	☐	☐	☐	☒

Significance criteria established by CEQA Guidelines, Appendix G.

5.2.1. Setting

The proposed Project is located in a fully developed area and there is no agricultural activity or forestry resources along the proposed Project transmission line route and substations. The project area is not zoned for agricultural or forestry uses, 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, 2022).

The properties in the areas along the proposed Project route are not under California Land Conservation Act of 1965 (referred to as the Williamson Act) contracts (DOC, 2017).

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 landowner 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 the land in the project 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?

The minimum acreage requirement for individual parcels to enter into Williamson Act contracts, as stated in Section 51222 of the California Government Code, is 10 acres. In addition, State CEQA Guidelines, Section 15206 does not regard the cancellation of less than 100 acres of land from Williamson Act to be of statewide, regional, or areawide significance.⁴

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.

⁴ Section 15206(b)(3) states that projects of statewide, regional, or areawide significance include, "[a] project which would result in the cancellation of an open space contract made pursuant to the California Land Conservation Act of 1965 (Williamson Act) for any parcel of 100 or more acres."

5.3. Air Quality

AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district 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?	☐	☐	☒	☐
(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?	☐	☒	☐	☐
(c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
(d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Significance criteria established by CEQA Guidelines, Appendix G.

5.3.1. Setting

Criteria Pollutants. Air quality is determined by measuring ambient concentrations of criteria pollutants. Air pollutants are those pollutants for which acceptable levels of exposure can be determined and for which standards have been set. The degree of air quality degradation is then compared to the current National and California Ambient Air Quality Standards (NAAQS and CAAQS). Unique meteorological conditions in California and differences of opinion by medical panels established by the California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (U.S. EPA) cause considerable diversity between State and Federal standards currently in effect in California. In general, the CAAQS are more stringent than the corresponding NAAQS. 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	0.075 ppm
Respirable Particulate Matter (PM ₁₀)	24 hour	50 µg/m ³	150 µg/m ³
	Annual Mean	20 µg/m ³	—
Fine Particulate Matter (PM _{2.5})	24 hour	—	35 µg/m ³
	Annual Mean	12 µg/m ³	15 µg/m ³
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm
	8 hour	9.0 ppm	9.0 ppm
Nitrogen Dioxide (NO ₂)	1 hour	0.18 ppm	—
	Annual Mean	0.030 ppm	0.053 ppm
Sulfur Dioxide (SO ₂)	1 hour	0.25 ppm	—
	24 hour	0.04 ppm	0.14 ppm
	3 hour	—	0.5 ppm
	Annual Mean	—	0.03 ppm

Notes: ppm=parts per million; µg/m³= micrograms per cubic meter; “—”=no standard

Source: CARB (<http://www.arb.ca.gov/research/aaqs/aaqs2.pdf>), November, 2016.

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

Attainment Status and Air Quality Plans. The U.S. EPA, ARB, and the local air district classify an area as attainment, unclassified, or non-attainment of a pollutant, 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 noncompliance 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 under both the state and federal standards.

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

Source: BAAQMD, 2023.

Regulatory Background

U.S. EPA/CARB Off-Road Mobile Sources Emission Reduction Program. The California Clean Air Act mandates that CARB 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. Tier 1 standards for large compression-ignition engines used in off-road mobile sources went into effect in California in 1996. These standards and ongoing rulemaking jointly address emissions of nitrogen oxides (NO_x) and toxic particulate matter from diesel combustion. CARB is also developing a control measure to reduce diesel particulate matter emissions as well as NO_x from in-use (existing) off-road diesel equipment throughout the State.

CARB Portable Equipment Registration Program. 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.

BAAQMD CEQA Guidelines Thresholds of Significance. The Bay Area Air Quality Management District (BAAQMD) provides the following thresholds as recommendations for use by lead agencies 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 (lbs/day) of reactive organic gases (ROG) or volatile organic compounds (VOC);
- Emit more than 54 lbs/day of nitrogen oxides (NO_x);
- Emit more than 82 lbs/day of PM₁₀ from exhaust; or
- Emit more than 54 lbs/day of PM_{2.5} from exhaust.

Similar thresholds exist for a project during operation along with a threshold for localized concentrations of CO greater than 9 ppm (8-hour average) or 20 ppm (1 hour average). For PM₁₀ and PM_{2.5} related to fugitive dust during construction, the BAAQMD recommends that each 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, 2023).

5.3.2. Environmental Impacts and Mitigation Measures

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

LESS THAN SIGNIFICANT – CONSTRUCTION. 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 shifting energy demand away from fossil fuels. The proposed Project would increase SVP's system capacity and reliability and allow SVP to serve projected load growth. By improving the delivery of electricity to the transmission system, the Project would support the primary goals of the 2017 Clean Air Plan and increased electrification of energy demands. 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.

A Project could be found 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. SVP's existing operations and maintenance group would assume inspection, patrol, and maintenance duties as needed. No additional staff would be required after project construction work is completed. 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.

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 proposed Project. No additional operations staff would be hired by SVP as a result of the Project being put into service. Since the Project is unstaffed, operational activities would not result in any net increase in mobile source emissions due to workers or staff maintaining the facility, and no new stationary sources are proposed. As a result, operation of the proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant. This impact would be less than significant, and no mitigation would be required during operations.

(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 – CONSTRUCTION. Construction of the proposed Project would include foundation excavation, power pole assembly and installation, and installation of travelers for the overhead transmission line construction option, and would include trenching, and vault installation for the underground option. These activities during construction would generate emissions at the work area and along the roadways used to access the site.

Construction emissions would be caused by exhaust from vehicles and equipment (e.g., ozone precursor VOC and NO_x, CO, PM₁₀ and PM_{2.5}) and fugitive dust that includes particulate matter from ground-disturbing activities. The mobile sources would include diesel-powered construction equipment such as cranes, lifts, loaders, an auger drill rig, and rollers, as well as small welders. Other mobile sources would include diesel and gasoline-powered vehicles for linework and trucks for deliveries of concrete, water,

and other materials. Outside of the work area, construction traffic would cause exhaust emissions from the trucks and other vehicles used by crews, materials, and equipment to access the work area.

Construction is expected to take approximately 14 months for the overhead alignment. The peak number of construction personnel would be approximately 25-30 workers, and traffic to and from the site during construction would be approximately 30-50 round trips daily. The proposed Project includes two options as described in the Project Description, Option 1 is a fully overhead configuration of the transmission line, while Option 2 is partially overhead and partially underground. In order to capture maximum emissions possible, the proposed Project was modeled with phases pertaining to the overhead configuration as well as underground.

Project-related construction emissions calculations were modeled using the California Emissions Estimator Model (CalEEMod), version 2022.1.1.22. The detailed emission calculations are based on the proposed workforce and types of equipment as described in Appendix C. The activity details that were modeled and the results appear in Appendix C. Table 5.3-3 summarizes the maximum daily emission rates of the proposed Project construction activity.

Table 5.3-3. Maximum Daily Unmitigated Construction Emissions (lbs/day)

Construction Activity	VOC	NOx	CO	SO ₂	PM10 (exhaust)	PM2.5 (exhaust)
Demolition	2.27	22.57	21.79	0.05	0.82	0.76
Site Preparation, Foundations	1.55	15.91	18.96	0.05	0.51	0.47
Overhead Installation	1.71	16.75	21.09	0.04	0.45	0.42
Underground Trenching	0.79	8.90	13.37	0.03	0.19	0.19
Underground Installation	1.71	16.75	21.09	0.04	0.45	0.42
Paving	5.95	11.67	16.21	0.03	0.39	0.36
Maximum Daily Construction Emissions	5.95	22.57	21.79	0.05	0.82	0.76
Threshold of Significance	54	54	None	None	82	54
Exceedance?	No	No	--	--	No	No

Sources: BAAQMD, 2022. Appendix C.

Table 5.3-3 shows that Project construction would not exceed the thresholds for individually significant Project impacts. The thresholds of significance (BAAQMD, 2022) recommended by the BAAQMD define mass emission rates that represent a potentially significant net increase for ozone precursor emissions (NOx or VOC) or exhaust emissions of particulate matter (PM10 and PM2.5). Construction-related criteria air pollutants would not exceed thresholds that indicate cumulatively considerable levels. 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.

Concurrent construction of other projects near the Project site could result in increased local air quality impacts for the duration of simultaneous construction activities. 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 near the Project site would also 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 a cumulatively considerable net increase of emissions would not occur due to construction dust, basic construction emissions control strategies are drawn from BAAQMD guidance (BAAQMD, 2022). The recommended emissions control measures appear in Mitigation Measure AQ-1.

With mitigation, construction of the Project would not result in a cumulatively considerable net increase of any criteria pollutants for which the region is in nonattainment, and the construction-related emissions would not substantially contribute to any air quality violation. This impact would be less than significant.

Mitigation Measure 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, and graded areas) shall be watered as needed, up to 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 attributed to the Project shall be removed using wet power vacuum street sweepers at least once per day, if needed. The use of dry power sweeping is prohibited.
- All areas to be paved shall be completed as soon as possible. Foundation pads shall be laid as soon as possible after grading.
- 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 regarding idling 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 proposed Project. SVP’s existing operations and maintenance group would assume inspection, patrol, and maintenance duties as needed. No additional staff would be required after project construction work is completed. Operational activities would not result in any net increase in mobile source emissions due to workers or staff maintaining the facility, and no new stationary sources are proposed. As a result, operation of the NRS-KRS Project would not result in a cumulatively considerable net increase of any criteria pollutant. 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 WITH MITIGATION – CONSTRUCTION. 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 would temporarily bring construction equipment into the Project site and onto roadways accessing the site.

Short-term emissions associated with construction would occur onsite and along the roadways accessing the work areas, and the activities would be variable in sequence and timing. The proposed activities include mobilizing vehicles and equipment, construction, crews, and materials, and use of fleet of diesel-powered offroad equipment on the site to install the Project components. Construction equipment and vehicles would access and move within the Project site throughout the construction duration of approximately 14 months. Within the overall duration, the emissions would vary and would not occur for long periods; this minimizes the potential that any location would be exposed to substantial pollutant concentrations.

Construction contractors would be required to control dust to avoid creating a nuisance, and the off-road diesel-fueled fleets regulation requires achieving a feasible level of control to minimize diesel exhaust emissions. Implementing “Best Management Practices” would minimize the emissions of pollutants, including dust and DPM or other toxic air contaminants. Mitigation Measure AQ-1 would control dust, limit equipment idling times, and properly maintain equipment to reduce construction phase emissions to levels below the applicable thresholds of significance. Implementing the best practices identified in the mitigation measure would ensure that receptors would not be exposed to substantial concentrations. Impacts under this criterion would be less than significant with mitigation for construction emissions.

LESS THAN SIGNIFICANT – OPERATIONS AND MAINTENANCE. During Project operations, emissions would result from limited use of vehicles for routine maintenance, repair, and inspection. Operational activities would not result in any net increase in mobile source emissions that could expose sensitive receptors to substantial concentrations of air pollutants. This impact would be less than significant, and no mitigation would be required during operations.

(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 proposed 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. Odors that occur in equipment exhaust would be minimized by mandatory use of ultra-low sulfur diesel fuel. Emissions of this nature would occur briefly during construction and would cease at the end of construction. There would be no notable impact of objectionable odors affecting a substantial number of people. Operation activities would be limited to inspection, patrol, and maintenance as needed, and would not produce odors that would adversely affect a substantial number of people. This impact would be less than significant, and no mitigation is required.

5.4. Biological Resources

BIOLOGICAL RESOURCES		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
(a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
(b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
(c)	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
(d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
(e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
(f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?	☐	☐	☐	☒

Significance criteria established by CEQA Guidelines, Appendix G.

5.4.1. Setting

This section describes the 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 (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.

For purposes of this analysis, the following designations apply:

- **Proposed Project Area:** The proposed Project area is defined as all areas subject to permanent and temporary impacts.
- **Study Area:** The Study Area is defined as the proposed Project area plus a 500-foot buffer.

Existing Habitat

The proposed Project is located within a fully developed urban area between the San Jose International Airport and Levi Stadium in the City of Santa Clara (City) dominated by urban hardscape and land cover. Northern Receiving Station (NRS) is the northern terminus of the proposed Project and the Kifer Receiving Station (KRS) is the southern terminus. An industrial land use property located at 1715 Martin Avenue in Santa Clara has been identified as a potential staging yard for the proposed Project. Access to the proposed Project work areas will be from existing adjacent paved roads.

Urban/developed areas occur throughout the proposed Project area and adjacent lands, 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. Land uses within the Study

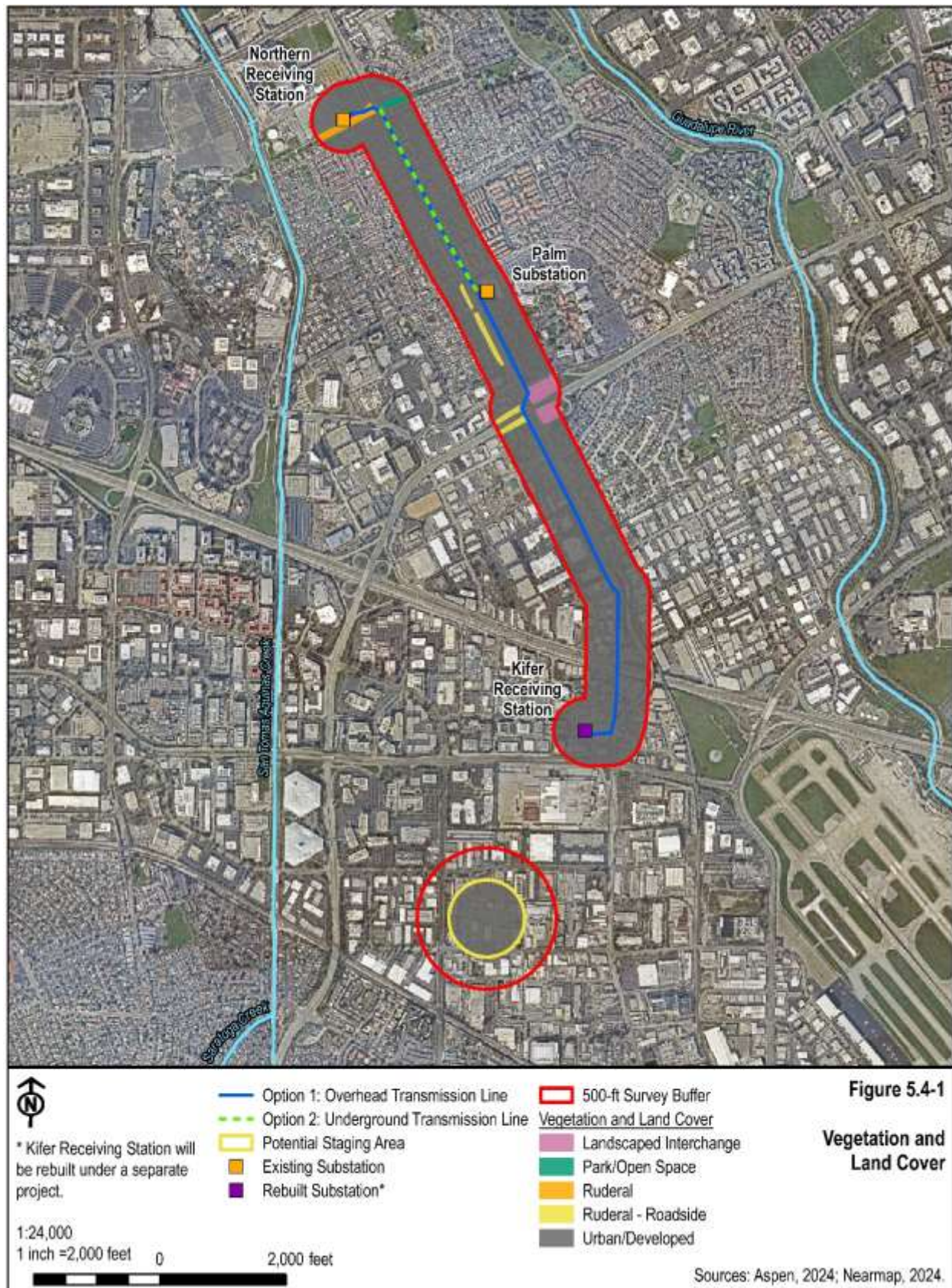
Area include residential, parks/open space, commercial, and industrial. Areas not containing hardscape are limited to residential, commercial, and roadside landscaped areas, landscaped parks/open space, and managed (e.g., mowing) ruderal areas of road shoulders and utility rights-of-way. Figure 5.4-1 shows a few ruderal, park/open space, and landscaped interchange areas meaningful to this analysis as they provide marginal habitat for certain special-status species. The Study Area does not contain natural vegetation community alliances as described in A Manual of California Vegetation (Sawyer et al., 2009). The topography of the Study Area is relatively flat and open, increasing in elevation roughly north to south from approximately 10 to 50 feet above mean sea level.

A biological resources reconnaissance survey was not conducted for the proposed Project. Information used in preparing this section was derived from:

- U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) federal resource list for the proposed Project area (USFWS, 2024a);
- California Department of Fish and Wildlife (CDFW) Biogeographic Information and Observation System (BIOS) Viewer (Map) California Natural Diversity Database (CNDDB) summary table report within a 5-mile buffer of the proposed Project area (CDFW, 2024);
- California Native Plant Society (CNPS) Rare Plant Inventory (RPI) species list within the two U.S. Geological Survey (USGS) 7.5-minute quadrangles overlapping the proposed Project area, including Milpitas and San Jose West (CNPS, 2024);
- Jepson eFlora (Jepson eFlora, 2024) online version of *The Jepson Manual: Higher Plants of California* (Baldwin et al., 2012) with access to Consortium of California Herbaria (CCH) record locations and details for RPI-identified species;
- California Academy of Sciences and National Geographic Society – iNaturalist (iNaturalist, 2024) sensitive species observations within a 5-mile buffer of the proposed Project area;
- The Cornell Lab of Ornithology eBird (eBird, 2024) sensitive species observations within a 5-mile buffer of the proposed Project area;
- U.S. Department of Agriculture Natural Resources Conservation Service (USDA NRCS) Web Soil Survey (USDA NRCS, 2024a) and National Hydric Soil List (USDA NRCS, 2024b) for data on soil units mapped within and adjacent to the proposed Project area; and
- USFWS National Wetlands Inventory (NWI) Wetlands Mapper (USFWS, 2024b) for wetlands and waters mapped within and adjacent to the proposed Project area.

Special-Status Plants and Animals

Special-status species are plant and wildlife species that have been afforded special protection by federal, state, or local resource agencies or organizations. The literature review identified 15 special-status plant species and 48 special-status wildlife species within 5 miles of the proposed Project area (see Appendix E of this IS/MND). Based on this literature review and desktop analysis of the Study Area, there is low to moderate potential for 11 special-status wildlife to occur within or adjacent to the proposed Project area due to the presence of marginal to suitable habitat. Due to the developed and disturbed nature of the Study Area, no special-status plant species have potential to occur within or adjacent to the proposed Project area. Due to a lack of marginal or suitable habitat, no special-status fish or amphibian species have potential to occur within or adjacent to the proposed Project area.

Figure 5.4-1. Vegetation and Land Cover

Jurisdictional Waters

There are no potentially jurisdictional waters or wetlands within the proposed Project area based upon a review of the USFWS NWI Wetlands Mapper (USFWS, 2024b), USGS Milpitas and San Jose West 7.5-minute quadrangle map, and Google Earth aerial and street view imagery. A formal aquatic resources delineation was not completed for the proposed Project.

Regulatory Background

Federal

Endangered Species Act (16 U.S.C. § 1531 et seq., and 50 C.F.R., part 17.1 et seq.). 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.

The Bald and Golden Eagle Protection Act (16 U.S.C. § 668-668c). This Act—enforced through regulations written by the USFWS—prohibits the “taking” of bald and golden eagles, including their parts, nests, or eggs. To take is defined as to “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb” any bald or golden eagle, whether “alive or dead...unless authorized by permit”. The administering agency is USFWS.

Migratory Bird Treaty Act (16 U.S.C §§ 703-711). The Migratory Bird Treaty Act (MBTA) makes it illegal to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid federal permit. The USFWS has authority and responsibility for enforcing the MBTA. The administering agency is USFWS.

Clean Water Act Sections 401 and 404 (33 U.S.C., §§ 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

California Endangered Species Act (Fish and Game Code [CFGF] §§ 2050-2098). The California Endangered Species Act (CESA) of 1984 states that all native species of fish, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation, will be protected and preserved. CESA prohibits the take of any species of wildlife designated by the California Fish and Game Commission as endangered, threatened, or candidate species. The CDFW may authorize the take of any such species if certain conditions are met. These criteria are listed in Title 14 of the California Code of Regulations, Section 783.4 subdivisions (a) and (b). For purposes of CESA “take” means to hunt, pursue, catch, capture, or kill (CFGF § 86). The administering agency is CDFW.

Fully Protected Species (CFGF §§ 3511, 4700, 5050, 5515, and 2081.15). These sections designate certain species as fully protected and prohibit the take of such species or their habitat unless for scientific purposes (see also Cal. Code Regs., tit. 14, §670.7). The incidental take of fully protected species may also be authorized in an approved natural community conservation plan (CFGF § 2835). California Senate Bill 147 (signed by Governor Newsom July 2023) amends 3511, 4700, 5050, and 5515 and Section 395, and adds Section 2081.15 to the Fish and Game Code. Fish and Game Commission is required to establish a list of endangered species and a list of threatened species and to add or remove species if the action is

warranted. “The act prohibits the taking of endangered or threatened species, except in certain situations, including, if specific conditions are met, through the issuance of a permit commonly known as an incidental take permit.” CDFW is authorized to issue a permit under CESA that would authorize the take of fully protected species resulting from impact attributable to the implementation of specified projects if certain conditions are met. This remains in effect until December 31, 2033. The administering agency is CDFW.

CFGC Protection for Birds. 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. Section 3800 defines all birds occurring naturally in California that are not resident game birds, migratory game birds, or fully protected birds are nongame birds. It is unlawful to take any nongame bird except as provided in this code or in accordance with regulations of the commission.

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 (nonscyclical) 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.

Furbearing and Mammal Protection. Additional regulations are in place protecting furbearing mammals as follows:

- Fish and Game Code §251.1 prohibits the harassment of any furbearing mammal. Harass is defined as an intentional act that disrupts an animal’s normal behavior patterns, which includes, but is not limited to, breeding, feeding, or sheltering.
- California Code of Regulations Title 14 §460 states that fisher, marten, river otter, desert kit fox and red fox may not be taken at any time.

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.

Native Plant Protection (CFGC § 1900 et seq.). The Native Plant Protection Act was enacted in 1977 and designates state rare and endangered plants and provides specific protection measures for identified populations. Those laws prohibit the take of endangered or rare native plants but include some exceptions for agricultural and nursery operations; for emergencies; after properly notifying CDFW, for vegetation removal from canals, roads, and other sites; due to changes in land use; and in certain other situations. The administering agency is CDFW.

Porter-Cologne Water Quality Control Act (California Water Code Division 7). The State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs) have jurisdiction over all surface water and groundwater in California, including wetlands, headwaters, and riparian areas. The SWRCB or applicable RWQCB must issue waste discharge requirements for any activity that discharges waste that could affect the quality of waters of the state.

Local

City of Santa Clara General Plan. The City's General Plan was adopted on November 16, 2010, and updated on December 9, 2014. Goals and policies specific to the City's General Plan to protect and preserve the city's natural habitat and wildlife are described in Chapter 5 Goals and Policies, Section 10 Environmental Quality. Those goals and policies that are important with respect to the project area as follows:

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

Santa Clara City Codes and Ordinances. Santa Clara City Code (City Code) sections 12.35 regulates trees on City land (i.e., public rights-of-way or easements, streets, and parks) and private land. A City permit is required for removing the following protected trees (§12.35.080):

- Heritage trees in all zoning districts.
- All trees of the following species on private property with a diameter of 12-inches or more when measured at 54-inches above natural grade: California buckeye (*Aesculus californica*), big leaf maple (*Acer macrophyllum*), deodar cedar (*Cedrus deodara*), camphor tree (*Cinnamomum camphora*), western sycamore (*Platanus racemosa*), coast live oak (*Quercus agrifolia*), valley oak (*Q. lobata*), black oak (*Q. kelloggii*), blue oak (*Q. douglasii*), interior live oak (*Q. wislizeni*), other native oak trees (*Quercus* sp.), coast redwood (*Sequoia sempervirens*), and California bay (*Umbellularia californica*).
- Approved development trees.
- Any tree on private land with a trunk diameter of 38-inches or more when measured at 54-inches above natural grade.
- Any multibranched tree on private land which has major branches below 54-inches above natural grade with a diameter of 38-inches or more measured below the first major trunk fork.

The Department of Community Development considers many factors in reviewing a tree removal permit application, including, but not limited to, if the tree can cause potential damage to an existing or proposed essential structure, or interfere with utility services and cannot be controlled or remedied through reasonable relocation or modification of the structure or utility service (§12.35.090[c][4][A]). The City does not require the replacement of trees unless the project involves obtaining a discretionary permit (§12.35.100).

City trees and protected trees shall be protected by use of best management practices (BMPs), design conditions, and measures listed in City Code, section 12.35.100 (d-f). When possible, work shall be conducted in accordance with ANSI A300 standards, developed as voluntary industry consensus standards by the Tree Care Industry Association, and follow tree care best management practices published by International Society of Arboriculture (ISA) necessary to protect the vitality of the tree.

Santa Clara Valley Habitat Plan. Adopted in 2013, the Santa Clara Valley Habitat Plan (Plan) is a 50-year regional plan designed for the protection and recovery of sensitive biological resources within a large portion of Santa Clara County while allowing for future development (ICF International 2012). The Plan area includes two geographic regions, the North Valley and South Valley. The northern boundary of the Plan area extends to the Alameda and Santa Clara Counties boundary, excluding the Milpitas City Limits and lands owned by the San Francisco Public Utilities Commission. The northwestern boundary is the Guadalupe River and boundary between the cities of Santa Clara and San Jose. Plan covered activities categories include urban development, in-stream capital projects, in-stream operations and maintenance, rural capital projects, rural operations and maintenance, rural development, and conservation strategy implementation. Construction, maintenance, and use of public and private utilities including electric transmission and distribution lines are Plan covered activities within the urban development category. The Plan also Includes an expanded study area for identified for burrowing owl conservation and is located in the northern edge of the county in portions of the cities of San Jose, Santa Clara, Mountain View, Milpitas, and Sunnyvale (ICF International 2012). The Project site is located within the expanded study area for burrowing owl conservation and approximately 2 miles outside the Plan area boundary.

5.4.2. Environmental Impacts and Mitigation Measures

- (a) **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. The proposed Project area lacks natural vegetation communities. Direct and indirect impacts from the proposed Project will be restricted to areas containing urban/developed and ruderal land cover types. The proposed Project area is in a highly developed, built out urban area and contains no habitat for special-status plant species and limited habitat suitable for most special-status wildlife species unless they are adapted to urban environments. If present, most special-status wildlife species would likely occur during migratory movements or periodic foraging events and would not be expected as resident species in the proposed Project area. However, if present within or adjacent to the proposed Project area, the proposed Project could result in direct or indirect impacts to special-status wildlife species. These impacts would be avoided or minimized with the implementation of Mitigation Measures (MMs) BIO-1 through BIO-6 proposed below.

Special-Status Plants

The construction and operation/maintenance of the proposed Project would not affect state or federally listed threatened or endangered plants, state rare plants, or any California Rare Plant Ranked special-status plants. No special status plants were identified during the literature review and desktop analysis having a potential to occur due to the developed and disturbed nature of the Study Area. No impacts to special-status plant species are expected.

Special-Status Wildlife

Based on a literature review and desktop analysis of the Study Area, there is low to moderate potential for 17 special-status wildlife to occur within or adjacent to the proposed Project area due to the presence of marginal to suitable habitat.

Construction Impacts on Special-Status Wildlife

Invertebrates

The following special-status invertebrate species were considered for this analysis:

- Monarch butterfly (*Danaus plexippus plexippus*) – Federal listing candidate, State Rank (SR) S2
- Obscure bumble bee (*Bombus caliginosus*) – CDFW Special Animal, SR S1S2
- Crotch's bumble bee (*Bombus crotchii*) – CESA candidate for Endangered listing, SR S2
- Western bumble bee (*Bombus occidentalis*) – CESA candidate for Endangered listing, SR S1

Monarch butterfly overwinters in wind-protected tree groves, primarily preferring gum trees (*Eucalyptus* spp.) but also using native trees such as Monterey pine (*Pinus radiata*), Monterey cypress (*Cupressus macrocarpa*), western sycamore (*Platanus racemosa*), coast redwood (*Sequoia sempervirens*), and coast live oak (*Quercus agrifolia*). Monarchs return to the same overwintering sites annually, are typically along the Pacific Coast and San Francisco Bay. Migrating adults will forage on a variety of plants, whereas larvae primarily feed on milkweed (*Asclepias* sp.) species (Jepsen et al. 2015). A variety of roosting trees can be used during fall migration (USFWS 2020).

The proposed project area does not support suitable foraging or egg-laying habitat for monarch butterfly and the proposed Project area is outside of the known overwintering range for the species. Monarch butterfly could occur as a migrant that moves through the area to preferable overwintering sites along the coast. Monarch butterfly is known to occur in the region from numerous iNaturalist observations

(iNaturalist, 2024); there are no CNDDDB records within 5 miles of the proposed Project area. This species could occur in the region as a migrant during construction. The proposed Project area lacks natural vegetation communities that could support milkweed species. Urban yards adjacent to the Project area could support periodic milkweed or other foraging plants. However, based on the limited habitat and incidental use of milkweed or foraging plants, impacts to this species would be considered less than significant and no mitigation is required. Nonetheless, should this species occur in the Project area as a transient, construction related impacts would be reduced by mitigation requirements for other wildlife species which include MM BIO-1 through MM BIO-3 requiring worker environmental awareness training, periodic biological monitoring if needed, and a general preconstruction survey. Although not required for this species, these measures would avoid or reduce impacts to this species should it occur in the Project area during construction.

The current ranges, distribution, and abundance of obscure bumble bee, Crotch's bumble bee, and western bumble bee are poorly understood (CDFW 2019; Xerxes Society 2018). The proposed Project area is located within the species range for both obscure bumble bee and Crotch's bumble bee, and within the historic range for western bumble bee (CWHR 2023; Hatfield et al. 2015). There is one historic CNDDDB record within 5 miles of the proposed Project for each of these bumble bee species (CDFW, 2024): one 1954 record for obscure bumble bee, one 1903 record for Crotch's bumble bee, and one 1979 record for western bumble bee, all presumed extant, are mapped generally to San Jose and overlapping the southern half of the Study Area. There are several potential sightings of obscure bumble bee from the California Bumble Bee Atlas community science project, identified to be either obscure bumble bee or a second species similar in appearance (Bumble Bee Watch, 2024). These potential obscure bumble bee sightings are of foraging individuals and primarily located at or near urban parks or urban residences or other buildings with ornamental landscaping, with the nearest being along the Guadalupe River Trail approximately 0.9 miles east northeast of the Project area (proposed structure 18). Crotch's bumble bee is further known in the region from three verified community science observations of foraging individuals within 5 miles, the nearest located foraging in an ornamental landscaped area in urban San Jose approximately 3.6 miles southeast of the Project area (Bumble Bee Watch, 2024; iNaturalist, 2024). There are no community science observations for western bumble bee within 5 miles (Bumble Bee Watch, 2024; CDFW, 2024; iNaturalist, 2024).

The proposed Project area lacks natural vegetation communities that would contain abundant floral resources. Urban yards adjacent to the Project area could support periodic floral resources that could potentially support special-status bumble bees. Although further research is needed, the likely foraging range for special-status bumble bee species is approximately 0.6 to 1.2 miles (1 to 2 kilometers) from the nest on a single trip (CDFW, 2023). Limited marginal habitat that could potentially support nesting special-status bumble bee species is located within or adjacent to the proposed Project area in the utility right-of-way adjacent to the NRS at the north end of the Project area and by Montague Expressway, in the landscaped area inside of the westbound onramp and on the fill slope supporting the Montague Expressway overcrossing on the west side of Lafayette Street. The marginal habitat at these locations consists of ruderal land cover containing primarily grasses and other herbaceous vegetation. Current and historic Google Earth aerial and street view imagery suggests these ruderal areas are periodically managed for weeds and fire abatement through mowing and/or discing. Google Earth aerial imagery also suggests the utility right-of-way and the landscaped interchange have been further disturbed by periodical use as staging areas for equipment and materials for other unrelated construction projects as recently as February 2024 and June 2022, respectively. Based upon the limited floral resources present and the limited marginal nesting habitat present in highly disturbed ruderal locations, there is a very low/minimal potential for a special-status bumble bee species nest(s) to be present. Nonetheless, should special status bumble bee species occur in the Project area, construction related impacts would be reduced by mitigation requirements for other wildlife species which include MM BIO-1 through MM BIO-3 requiring

worker environmental awareness training, periodic biological monitoring if needed, and a general preconstruction survey.

Fish and Amphibians

The proposed Project will not affect any federally or state listed fish or amphibian species. Due to a lack of marginal or suitable habitat, no special-status fish or amphibian species are expected to occur within or adjacent to the proposed Project area.

Reptiles

The proposed Project will not affect any federally or state listed fish or amphibian species. Due to a lack of marginal or suitable habitat, most special-status reptiles are not likely to occur. One special-status reptile species that is a candidate for federal listing was considered for this analysis:

- Western pond turtle (*Actinemys marmorata*) – Federal ESA candidate for Threatened listing, CDFW SSC, SR S3

The proposed Project area does not support suitable aquatic habitat that could support western pond turtle. Western pond turtle is known to occur in the region from 13 CNDDDB records and numerous iNaturalist observations within 5 miles, including along the salt evaporation ponds along the bay approximately 2.25 miles northwest and the Guadalupe River approximately 0.75 miles east of the Project area (CNDDDB, 2024; iNaturalist, 2024). There are many migratory movement barriers (i.e., roads, buildings, other hardscape,) present that would prevent western pond turtle from traveling into the Project area from the bay edge and the Guadalupe River. Western pond turtle is also known to occur in San Tomas Aquino Creek from two CNDDDB records, a 1989 occurrence approximately 0.75 miles northwest of the NRS and a 2017 occurrence approximately 0.65 miles southwest of the KRS (CNDDDB, 2024). The closest suitable aquatic habitat is located at San Tomas Aquino Creek, approximately 0.3 miles southwest of the NRS. The ruderal utility right-of-way adjacent to the NRS and proposed structures 1, 2, and 3 at the north end of the Project area provides limited marginal upland habitat for western pond turtle. The typical upland migration and/or dispersal distance for western pond turtle is up to approximately 0.3 miles (USFWS, 2023). The marginal habitat at this location consists of ruderal land cover containing primarily grasses and other herbaceous vegetation. Current and historic Google Earth aerial and street view imagery suggests this ruderal area is periodically managed for weeds and fire abatement through mowing and/or discing. Google Earth aerial imagery also suggests this utility right-of-way has been further disturbed by periodical use as a staging area for equipment and materials for other unrelated construction projects as recently as February 2024. Further, based on Google Earth aerial and street view imagery, two chain-link fences exist between San Tomas Aquino Creek and the project work areas located on the west side of Lafayette Street, one on either end of the ruderal utility right-of-way. These chain-link fences likely present a barrier to upland movements unless holes under the fences, or other breaks in the fence line, exist or develop in the future.

In the event that western pond turtle is present within or adjacent to the proposed Project area, destruction or abandonment of nest sites or occupied burrows or mortality from crushing by vehicles or equipment would be considered significant. Implementation of MM BIO-1 through MM BIO-3 requiring worker environmental awareness training, periodic biological monitoring if needed, and a general preconstruction survey, would reduce impacts to western pond turtle to less than significant.

Birds

Native birds are regulated by the MBTA and CFGC Section 3503. These regulations also protect federally or state listed birds, fully protected birds, bird species of special concern, watch list bird species, and birds of conservation concern. Though watch list species and birds of conservation concern do not typically warrant protections under CESA, they would be protected under the MBTA and CFGC. A variety of

common birds may nest within or adjacent to the proposed Project area, including California scrub jay, mourning dove, Cooper's hawk, and great egret. Nests may be built in trees or other vegetation, on the ground, or on existing buildings or other structures. Birds may also attempt to nest in construction materials or on idle construction equipment. Due to the urban/developed land cover and the regular disturbance experienced from urban anthropogenic activities, mowing, and vehicle and equipment staging within or adjacent to the proposed Project area, it is more likely that special-status avian species adapted to developed or semi-developed environments would nest in or near the proposed Project area. Even in the urban/developed land cover, the loss of native and migratory bird species would be considered a significant impact.

In addition to common bird species, the following special-status bird species were considered for this analysis:

- Burrowing owl (*Athene cunicularia*) – CDFW SSC, USFWS Bird of Conservation Concern (BCC), SR S2
- Swainson's hawk (*Buteo swainsoni*) – ST, SR S4
- White-tailed kite (*Elanus leucurus*) – CDFW Fully Protected (FP), SR S3S4
- American peregrine falcon (*Falco peregrinus anatum*) – Federally and State de-listed, S3S4

Two of the special-status species listed would not be expected to nest within or near the proposed Project area due to a lack of suitable habitat and the current level of ongoing disturbance. Although marginal nesting habitat is present, the proposed Project area is outside of the current breeding range within California for Swainson's hawk (CDFW, 2016). The proposed Project area and surrounding land lack suitable cliff ledges, tall buildings, or similar features that would provide suitable nesting habitat for American peregrine falcon. However, these special-status bird species have a low to moderate potential to forage within or adjacent to the proposed Project area. The Project will not convert any land cover that could be used as foraging habitat. Construction related impacts to foraging protected birds would be short-term and temporary in nature.

Burrowing owl is an urban-adapted raptor species which occurs in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low growing vegetation (CWHR, 2021). This species requires subterranean nesting and roosting features such as California ground squirrel (*Otospermophilus beecheyi*) burrows or analogous features (CWHR, 2021). Burrowing owl is known in the region from 32 CNDDDB records within 5 miles of the proposed Project, including some that are known or suspected to be extirpated. A 2014 CNDDDB occurrence record overlaps the NRS, adjacent land, and the Levi Stadium facility (CDFW, 2024); the entire area of this occurrence polygon has been developed or has been heavily disturbed in the case of the ruderal utility right-of-way. Extant populations are documented in 2004 and 2009 CNDDDB occurrence records, respectively, at the Santa Clara Golf and Tennis Club located approximately 0.5 miles north of the NRS and at the San Jose International Airport located approximately 0.5 miles east of the KRS (CDFW, 2024). There are also numerous community science observations of burrowing owl within 5 miles, including during the March through August breeding season (eBird, 2024; CWHR, 2021; iNaturalist, 2024). Limited marginal habitat for burrowing owl is located within or adjacent to the proposed Project area at adjacent to the NRS, at the landscaped areas on Lafayette Street at Montague Expressway. The marginal habitat at these locations consists of ruderal land cover containing primarily grasses and other herbaceous vegetation. Current and historic Google Earth aerial and street view imagery suggests these ruderal areas are periodically managed for weeds and fire abatement through mowing and/or discing. Google Earth aerial imagery also suggests the utility right-of-way and the landscaped interchange area has periodically been used to stage equipment and materials for other unrelated construction projects as recently as February 2024 and June 2022, respectively. Due to the presence of limited marginal nesting and foraging habitat, the documented occurrences in proximity to the Project area, and the species' adaptation to urban environments, the potential for burrowing owl to occur within or adjacent to the proposed Project area is moderate; therefore, direct impacts to burrowing owl could occur.

White-tailed kite is a raptor species which occurs in open grasslands, meadows, marshes, and agricultural areas close to isolated, dense-topped trees used for nesting and perching (CWHR, 2021). White-tailed kite is known in the region from one recent 2004 and one 1971 CNDDDB record located in or adjacent to open grassland habitats by the bay approximately 1.3 to 1.6 miles north northeast of the NRS (CDFW, 2024). There are also numerous community science observations within 5 miles, including a 2022 eBird observation located at the Oracle Santa Clara Campus adjacent to the Palm Substation and between the substation and Montague Expressway (eBird, 2024; iNaturalist, 2024). Limited suitable nesting trees are present within or near the proposed Project area, particularly along San Tomas Aquino Creek to the west of the NRS, Lick Mill Park to the east of NRS, the Oracle Santa Clara Campus between the Palm Substation and Montague Expressway. Limited marginal foraging habitat is present adjacent to the NRS, the landscaped interchange, and ruderal road shoulders along the west side of the Montague Expressway overpass. The marginal foraging habitat consists of ruderal land cover containing primarily grasses and other herbaceous vegetation. Current and historic Google Earth aerial and street view imagery suggests these ruderal areas are periodically managed for weeds and fire abatement through mowing and/or discing. Google Earth aerial imagery also suggests the utility right-of-way and the landscaped interchange at Montague Expressway have periodically been used to stage equipment and materials for other unrelated construction projects as recently as February 2024 and June 2022, respectively. Due to the high level of disturbance experienced in the limited marginal nesting and foraging habitat, the potential for white-tailed kite to occur within or adjacent to the proposed Project area is low.

With the exception of a few non-native birds, such as European starling (*Sturnus vulgaris*) and house sparrow (*Passer domesticus*), the loss of active bird nests or young is regulated by the MBTA and CFGC Section 3503. Direct or indirect impacts to nesting birds or raptors, if present, would be considered significant. Implementation of the proposed Project could disturb birds if they nest in or near the proposed Project area. Direct impacts could include loss of nests from contact with construction equipment. If present on the ground within the proposed Project area, nests or eggs could be subject to destruction from crushing by construction vehicles, equipment, or personnel. As described in Section 4 Project Description and in the arborist report prepared for the Project (Appendix D), trees may require either full removal or clearance pruning to construct the Project. The maximum allowable tree height under the transmission lines will vary from 27 to 35 feet depending upon location.

To reduce impacts to nesting bird species, the Project will implement MM BIO-1 through BIO-4, which requires worker training, periodic biological monitoring if needed, a general preconstruction survey for special-status species, and a focused survey for nesting birds and raptors (if construction activities are scheduled during the breeding season). Implementation of these measures would reduce impacts to nesting bird and raptor species to less than significant.

Mammals

The Project site does not provide habitat for federally or state listed mammal species or fur-bearing mammals. The Project site could provide potential habitat for a variety of special status bat species. Bats utilize a variety of daytime roosting sites, including caves, rock crevices, mines, trees and snags, bridges, and buildings and structures. While some bats are colonial, living in large colonies in caves or under bridges, others are solitary, roosting in trees and crevices. Sensitive periods for bats include the hibernation season, when bats are sustaining on fat reserves, and the maternity season, when female bats give birth to babies. The decline of bat populations is often due to roost site disturbance or loss. Due to their sensitivity to noise, human presence, and other disturbance factors, impacts to bat roosts would be considered a significant impact.

The following special-status bat species were considered for this analysis:

- Townsend's big-eared bat (*Corynorhinus townsendii*) – CDFW SSC, SR S2
- Western red bat (*Lasiurus frantzii*) – CDFW SSC, SR S3

Townsend's big-eared bat is a flying mammal species which primarily roosts on the walls and ceilings of caves and mines but also within buildings, bridges, rock crevices, and hollow trees (CWHR, 2024; WBWG, 2017). A specific roost may be used during one season or may be used throughout the year for maternity, hibernation, or breeding (CDFW, 2013). Summer maternity colonies are formed between March and June and can be made of a few individuals to several hundred (CDFW, 2013). This bat species is extremely sensitive to human disturbance (CWHR, 2024; WBWG, 2017). The Montague Expressway overpass bridge structure over Lafayette Steet provides limited marginal suitable roosting habitat to support this species. The proposed Project will not impact the overpass bridge structure. The Study Area provides limited suitable foraging habitat to support this species.

Western red bat is a flying mammal species that roosts throughout the year amongst the foliage of trees or shrubs, particularly in edge habitats adjacent to streams or open habitats such as grasslands and agricultural lands (CWHR, 2024; WBWG, 2017). This bat species is highly migratory and typically solitary but may roost in clusters of up to several individuals. Maternity season occurs between May and July (CWHR, 2024; WBWG, 2017). The proposed Project area and adjacent lands contain limited suitable foraging habitat and limited trees and shrubs suitable to support roosting for this species, particularly along San Tomas Creek to the west of the NRS, Lick Mill Park east of NRS, and the Oracle Santa Clara Campus between the Palm Substation and the Montague Expressway interchange.

Due to the existing level of disturbance in proximity to the limited marginal roosting and foraging habitat, special status bat species are not expected to occur or are expected to be more tolerant of disturbance due to the baseline level of human activity from vehicle traffic and human presence, as in the case of the Montague Expressway Overpass bridge. If present within vegetation requiring removal or trimming, direct impacts could include mortality from contact with construction equipment or abandonment of roosts and, if during the maternity season, of pups incapable of flight. To reduce impacts, the Project will implement MM BIO-1, BIO-2, and BIO-5, which will require worker training, periodic biological monitoring if needed, a preconstruction survey for bat roosts, and development and implementation of a Bat Mitigation and Monitoring Plan if roosts are detected. Implementation of these measures would avoid impacts to special-status bat species maternity roosts and reduce impacts to less than significant.

Direct impacts to special-status wildlife resulting from construction of the proposed Project could also occur from exposure to noise or vibration, fugitive dust, or exposure to hazardous materials. As described in Section 5.3 (Air Quality), Silicon Valley Power would implement measures to control and suppress fugitive dust in compliance with all standards required by the Bay Area Air Quality Management District. As described in Section 5.10 (Hydrology and Water Quality), hazardous materials control measures would be used throughout construction to reduce potential impacts. Construction activities would require the use of vehicles and heavy equipment capable of generating noise and ground vibration within and adjacent to the proposed Project area. As discussed in Section 5.13 (Noise), impacts from construction-related ground vibration would be short-term and confined to the immediate work area (within approximately 25 feet). Incremental noise from construction vehicles and traffic noise would not represent a substantial increase in the context of the project surroundings and the existing noise levels, as discussed in Section 5.13 (Noise). As such, direct impacts from exposure to noise or vibration, fugitive dust, or exposure to hazardous materials would be reduced to less than significant.

Operational Impacts on Special-Status Wildlife

Once the proposed Project is constructed, SVP's existing maintenance and operations group would assume inspection, patrol, and maintenance duties. Project operation and maintenance activities could generate varying levels of human presence, lighting, and noise along the Project alignment and adjacent areas. Direct impacts to special-status species, if present during operations, could include exposure to increased levels of human presence, exposure to noise and night lighting generated from maintenance

activities, hazardous material spills, and collision with overhead electrical transmission lines or electrocution from overhead electrical equipment on utility poles.

Due to the urban/developed land cover and the regular disturbance experienced from urban anthropogenic activities, mowing, and vehicle and equipment movement and staging within or adjacent to the proposed Project area, it is more likely that special-status wildlife species adapted to developed or semi-developed environments would occur as resident species within or adjacent to the proposed Project area. The proposed Project primarily occurs along an existing overhead electrical distribution alignment subject to existing inspection, patrol, and maintenance activities conducted by Silicon Valley Power. As discussed in Section 5.13 (Noise), the occasional nature of maintenance noise due to implementation of the proposed Project would not result in 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. 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. Other than substances associated with vehicles that would be used for inspections and maintenance, no hazardous materials are associated with maintenance and operation of the proposed Project. Therefore, impacts from an increased exposure to increased levels of human presence, exposure to noise and night lighting generated from maintenance activities, or hazardous material spills would be less than significant.

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.

Electrocution 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. Electrocution on power lines is a greater potential hazard to larger birds, such as raptors, because their body size and wingspan are large enough to span the distance between the conductor wires and thus complete the electrical circuit (APLIC, 2006).

To reduce potential collision and electrocution risks to birds and bats, the Project is being designed in compliance with current Avian Power Line Interaction Committee (APLIC) guidelines (APLIC, 2006) as described in Section 4 Project Description. These methods ensure a minimum separation between electrical components to prevent simultaneous contact and covering electrical components with protective materials to prevent contact. These incorporated Project designs would reduce impacts to birds from electrocution and collision to a less than significant level.

Mitigation Measure for Special-Status Wildlife Species

MM BIO-1 Implement Worker Environmental Awareness Program. Prior to and for the duration of any vegetation removal and trimming and any ground disturbing activities, SVP or its designee shall provide Worker Environmental Awareness Program (WEAP) training to all new personnel prior to beginning work on the Project. The training may be presented in the form of a video. The training program shall be developed by a qualified biologist to educate Project personnel about the Project's sensitive biological resources. The name and credentials of the qualified biologist shall be submitted to the City no less than 14 days prior to the surveys for review and approval. A draft of the training program (i.e.,

video and written materials) shall be submitted to the City no less than 14 days prior for approval prior to implementation. The WEAP shall include, at a minimum:

- An overview of the sensitive biological resources that are known or have the potential to occur in the Project area and surrounding habitat. This shall include nesting birds and special- plants and wildlife.
- An overview of the Project and Mitigation Monitoring and Reporting Program (MMRP), and the consequences of non-compliance with these requirements.
- An overview of the federal and State Endangered Species Acts, Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act, pertinent Fish and Game Code sections, and other applicable regulatory requirements and the consequences of non-compliance with these requirements.
- Functions, responsibilities, and authority of the biological monitor(s) and how they interact with Project personnel.
- Identify clear points of contact for the biological monitor(s) and construction personnel including who to contact should workers have questions regarding compliance with environmental documents and permit conditions.
- Project restrictions, such as Environmentally Sensitive Habitat Areas (ESHAs), setbacks from sensitive biological resources, and avoidance buffers.
- Requirements to remain within authorized work areas and on approved access routes, with examples of flagging and signage used to designate these areas.
- Information on compliance with Project speed limits, control of litter and micro trash, smoking restrictions, wildfire minimization measures, spill containment and clean up, and the implementation of Best Management Practices.
- Explanation that wildlife must not be harmed or harassed including procedures for abiding by Project speed limits, covering pipes, securing excavations, and installing exit ramps to prevent wildlife entrapment.

Training acknowledgement forms shall be signed by each person attesting that they understand and will abide by Project requirements. Upon request, SVP or its designee shall provide the City the WEAP training acknowledgement forms for persons who have completed the training in the prior month and a running total of all persons who have completed the training to date.

MM BIO-2

Biological Monitoring. SVP or its designee shall retain a qualified biologist as biological monitor on the Project, to be approved by the City. If sensitive biological resources are identified during preconstruction surveys or incidentally, the qualified biologist will monitor Project work locations in proximity to sensitive biological resources weekly until biological resources are not found for one consecutive month, at which point weekly monitoring will cease. The qualified biologist shall be notified immediately if any nesting birds or other biological resources are discovered once construction begins. 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 animal. 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, permit conditions, or other Project requirements, or will have an unauthorized adverse effect on biological resources.

MM BIO-3 Conduct Preconstruction Surveys for Special-Status Wildlife and Implement Avoidance Measures. A qualified biologist shall conduct a preconstruction survey for each of the species identified below. These surveys can be combined if they meet the requirements outlined in this measure. The name and credentials of the qualified biologist shall be submitted to the City no less than 14 days prior to the surveys for review and approval. Within 14 days of completion of the surveys, the City shall be provided with a report describing the findings, including the date, time, and duration of the surveys; identity of the surveyor(s); a list of all common and special-status species observed; locations of any special-status species identified, including any established avoidance buffers; and any actions taken at the direction of the City in coordination with CDFW, and/or USFWS.

Bumble Bee: A preconstruction survey for Crotch's bumble bee and western bumble bee shall be conducted during the colony active period for each species (April through August) prior to project vegetation management and ground disturbing activities. The survey shall be conducted by a qualified entomologist or biologist familiar with the life history and ecology of special-status bumble bee species. The preconstruction survey for special-status bumble bees shall focus on the ruderal habitat within the utility right-of-way adjacent to the Northern Receiving Station and landscaped and ruderal land at the Montague Expressway interchange. The survey shall identify any potential foraging, nesting, and/or overwintering resources present within the Project work areas and a 50-foot buffer where legal access is available. If a potential active special-status bumble bee nest site is identified, a 50-foot avoidance buffer shall be clearly delineated with staking, flagging, and/or signage and Project activities will be prohibited from the area until it is determined that the nest is no longer potentially active. The qualified biologist shall notify the City for coordination with CDFW within 24 hours as further coordination may be required to avoid or mitigate impacts.

Burrowing Owl. No later than seven days prior to start of project vegetation management and ground disturbing activities, a qualified biologist shall conduct a preconstruction survey for burrowing owl. The survey shall include the focus areas (described below) plus a 250-foot buffer where legal access is available. The survey for burrowing owl shall focus on the ruderal habitat described for bumble bees above. If burrows or other structures are identified that contain signs of use by burrowing owl, or if burrowing owl(s) is observed, an avoidance buffer area shall be clearly delineated with staking, flagging, and/or signage. If during the nesting season (February 1 to August 31), a 250-foot avoidance buffer shall be established, and Project activities will be prohibited from the area until a qualified biologist determines it is occupied either by a non-mated pair or the young have fledged. If outside the nesting season, a 160-foot avoidance buffer shall be established. The prescribed buffers may be adjusted by the qualified avian biologist in coordination with the City and CDFW based on existing conditions around the burrow, planned construction activities, tolerance of the species at a given location, and other pertinent factors.

If avoidance of burrowing owls is not feasible and work will be conducted outside the nesting season, a Burrowing Owl Passive Relocation Plan shall be developed to provide detailed methods and guidance for passive relocation of burrowing owls. The Burrowing Owl Passive Relocation Plan shall be submitted to the City for approval in coordination with CDFW prior to conducting passive relocation. An occupied burrow may not be disturbed during the nesting season, unless a qualified biologist determines, by non-invasive methods, that it is not occupied by a mated pair. Passive relocation would include installation of one-way doors on burrow entrances that would let owls out of the burrow but would not let them back in. Once owls have been passively relocated, burrows will be

carefully excavated by hand and collapsed by, or under the direct supervision, of a qualified biologist.

Within 14 days of completion of the surveys, the City shall be provided with a report describing the findings, including the date, time, and duration of the surveys; identity of the surveyor(s); any established avoidance buffers in the event burrowing owls are documented to be present; and any actions taken at the direction of the City.

Western Pond Turtle: No later than seven days prior to start of project vegetation management and ground disturbing activities, a qualified biologist shall conduct a preconstruction survey for western pond turtle. The survey for western pond turtle shall focus on the ruderal habitat within the utility right-of-way southeast adjacent to the Northern Receiving Station.

Western pond turtle or other special-status wildlife found within the Project site during the surveys shall be allowed to leave on its own volition prior to the onset of construction. If species of special concern are found within the Project site during surveys and will not leave on its own volition, the species will be relocated to the nearest suitable habitat outside of the Project site. Species of special concern will only be handled by qualified personnel as authorized by CDFW and/or USFWS under an issued state scientific collecting permit (SCP), memorandum of understanding (MOU), or federal recovery permit. Impacts to federally or state-listed species or state-listing candidate species are not authorized. If any State or federally listed, candidate, or proposed species are detected work will be stopped and the applicant shall notify the City for coordination with CDFW and or USFWS, within 24-hours for further direction.

MM BIO-4

Preconstruction Nesting Bird Surveys and Nest Protection. During the nesting season (February 1 to August 31), preconstruction nesting bird surveys shall be conducted on the site and vicinity by a qualified biologist no more than 7 days before any work activities, including any vegetation removal or trimming, are performed at a given Project location. The surveys shall be conducted following the sequential schedule of the linear Project in a manner that minimizes potential for the surveys to expire before the construction crews proceed to a new Project work location. 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, the biological monitor will determine if there is need for a buffer or shield to minimize disturbance of the nest. Upon this determination and execution of any required minimization action, work may proceed. The extent of the determination will be based upon: acclimation of the species or individual to disturbance, nest type (cavity, tree, ground, etc.), and level and duration of construction activity. If there is a break in construction at a work location for a period of 14 or more days during nesting season, a new nesting bird survey shall be undertaken before construction is allowed to commence at that location, to determine if any nests have been established. Bird surveys are not required outside of the nesting season (February 1 to August 31).

In the unlikely event a special-status or listed species is found nesting nearby, CDFW and USFWS will be notified, and the City will be provided with nest survey results, if requested. When active nests are identified, monitoring for significant disturbance to the birds will be implemented. Construction will not be allowed to continue unless the qualified biologist determines that no disturbance is occurring.

MM BIO-5 Preconstruction Bat Survey and Implement Avoidance Measures. A qualified biologist shall conduct surveys for special-status bats during the appropriate time of day to maximize detectability to determine if bat species are roosting in trees or other vegetation requiring removal or clearance pruning for the Project. The name and credentials of the qualified biologist shall be submitted to the City no less than 14 days prior to the surveys for review and approval. The survey shall occur no less than 7 days and no more than 14 days prior to beginning tree or other vegetation removal or trimming activities. Survey methodology may include visual surveys for bats (e.g., observation of bats emerging from roosts to forage), inspection for suitable roost habitat, bat sign (e.g. guano), or use of ultrasonic detectors (e.g., Anabat, etc). Visual surveys shall include all trees or other vegetation requiring removal or clearance pruning for the Project.

If evidence of bat use is observed, the approximate number and species of bats using the roost shall be determined. Bat detectors may be used to supplement survey efforts.

If roosts or a maternity colony are determined to be present, then a Bat Mitigation and Monitoring Plan (Plan) shall be prepared and implemented to mitigate for the loss of roosting habitat. The Plan shall include information pertaining to the species of bat and location of the roost, exclusion methods and roost removal procedures, compensatory mitigation for permanent impacts (including specific mitigation ratios and location of proposed mitigation) and monitoring to assess bat use of mitigation areas. This Plan shall be submitted to the City and CDFW for review and approval prior to project activities that could disturb roosting bats.

(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. No impacts would occur.

(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 proposed Project area is highly urbanized and no waters or wetlands potentially under the jurisdiction of USACE, RWQCB, or CDFW occur on or adjacent to the proposed Project area. No impacts would occur.

(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?

NO IMPACT. There are no established wildlife migratory corridors or nursery sites that would be directly impacted during construction or operation of the proposed Project. The proposed Project area is not located within any Essential Habitat Connectivity Areas or Natural Landscape Blocks as identified in the California Essential Habitat Connectivity Project, or within any Important Bird Areas identified by the National Audubon Society. (Caltrans and CDFW, 2010; NAS, 2023).

(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. The City's General Plan includes conservation goals and policies pertaining to biological resources. Incorporation of MM BIO-1 through MM BIO-5 reduces potential impacts to common and protected biological resources to less than significant and is in alignment with General Plan Conservation Goal 5.10.1 G1: "The protection of fish, wildlife and their habitats, including rare and endangered species" and 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."

There are no streams or riparian habitats located within or adjacent to the proposed Project area, therefore, the proposed Project will not impact these habitats and the proposed Project does not conflict with General Plan Conservation Goal 5.10.1 G2 or Conservation Policies 5.10.1 P2 or 5.10.1 P5.

As described in Section 4 Project Description, some vegetation and tree removal or tree trimming may be required for pole installation and vehicle access and to minimize the risk of fire by providing clearance between conductors and trees. The City Code has an ordinance (Santa Clara City Code §12.35) requiring a City permit for removing trees it defines as protected trees (§12.35.080). Additionally, the General Plan contains Conservation Policies pertaining to trees including 5.10.1 P3 (preservation of City-designated heritage trees) and 5.10.1 P4 (protection of large private and public right-of-way trees).

An arborist survey was conducted by an International Society of Arboriculture (ISA) certified arborist and an arborist report was prepared (see Appendix D). The arborist survey identified a total of 162 trees along the proposed Project area alignment, 85 of which qualify as "protected trees" under the City's General Plan and municipal code. No trees that the City designates as "Heritage trees" are present. Tree branches that are closer than 5 feet vertically or 10 feet horizontally to any conductor or wire would be trimmed to meet the minimum line clearance required by project engineers. The lowest conductor height would be approximately 35 to 40 feet above the ground. Under Option 1 of the proposed Project (entirely overhead), two protected trees are recommended for removal while 26 protected trees and seven additional non-protected trees may require clearance pruning. The two protected trees recommended for removal on Option 1 are located along Lafayette Street: tree #132, an olive tree located in the median approximately 470 feet northwest of Agnew Road; tree #177, a deodar cedar located on the east side of Lafayette Street across from Wyatt Drive. For Option 2 (underground and overhead combination), one protected tree is recommended for removal while 22 protected trees and 10 additional non-protected trees may require clearance pruning. The one protected tree recommended for removal on Option 2 is tree #177 as described above for Option 1. Protected trees recommended for clearance pruning for either Option 1 or Option 2 are scattered throughout the proposed Project area. The removal and clearance pruning of protected trees for the proposed Project would conflict with the City's General Plan conservation goals and policies and the City Code. As recommended in the arborist report in Appendix D, incorporation of MM BIO-6 will ensure the proposed Project complies with the local policies and ordinances by following the tree protection requirements and recommendations of the City arborist.

Mitigation Measures to Comply with Local Tree Policies and Ordinances

MM BIO 6: Tree Protection Measures for Retained Trees. To minimize the potential damage and ensure the long-term health, stability, and survival of retained trees, measures outlined in the Tree Protection Plan below shall be implemented.

Tree Protection Zone

- A Tree Protection Zone (TPZ) shall be defined by the City Arborist or City designated ISA Certified Arborist for all trees within 20 feet of any excavation that could be affected by Project activities and are intended for preservation. A TPZ will not be established for

trees within the project area that are not within this excavation zone. TPZ will be taken down once excavation work is completed within 20 feet. A TPZ will typically include all area within the dripline of trees to be retained.

- The TPZ will be protected by a fenced enclosure to prevent unauthorized access during project activities. Fencing shall be constructed of sturdy but open material (i.e., orange webbed construction fencing, chain-link) with a minimum height of 4 feet and secured in place. Warning signs (e.g. WARNING – Tree Protection Zone – This fence shall not be moved without approval by the City Arborist or a City designated arborist) shall be prominently displayed and visible from all sides of the TPZ fencing.
- TPZ fencing shall be installed prior to any demolition, grading, staging, stockpiling, or any other construction activities, and shall remain in place until all construction activities are complete.
- No construction, staging, or storage of materials, equipment or vehicles shall occur within the TPZ without advanced approval and oversight by the City Arborist or a City designated ISA Certified Arborist.
- No excess soil, excess concrete or concrete wash, chemicals, refuse or other waste shall be placed within the TPZ.
- The primary contractor shall be responsible for maintaining TPZ fencing and enforcing all TPZ guidelines outlined above throughout the course of the Project.

Site Grading, Excavation, and Trenching

- Soil disturbance or grade changes within a TPZ are not permitted unless approved by the City Arborist or a City designated arborist. Any approved grading, excavation or trench work within a TPZ will be field staked and inspected by the City Arborist or a City designated ISA Certified Arborist prior to implementation.
- All grading, excavation and trenching work within a TPZ shall be performed under the observation of a City Arborist or City designated ISA Certified Arborist.
- All grading shall be designed to provide positive drainage away from the base of trees to be preserved and shall not create ponding within a TPZ.
- Grade changes in the vicinity of trees to be preserved should remain as close to natural grade as possible.

Canopy Pruning

- To the extent possible, any necessary canopy pruning shall be completed prior to the commencement of construction activities.
- Pruning shall be performed by a qualified tree service worker under the direction of an ISA Certified Arborist following International Society of Arboriculture tree pruning best management practices. Pruning shall not be performed by construction personnel.

Root Pruning

- Any roots one inch and larger requiring removal shall be cut cleanly in sound tissue. No pruning seals or paint shall be used on wounds.
- Roots two inches and greater shall remain in place and undamaged to the extent practicable. If removal is required, cuts shall be made with the approval and under the direction of an ISA Certified Arborist.

Communication for Tree Protection Compliance

- A preconstruction meeting shall be arranged for the City Arborist or City designated ISA Certified Arborist to meet with the Project Planner, Project Contractors, Onsite Project Supervisors, Tree Pruning and Removal Contractor, and/or other appropriate Project Leads to review and secure a commitment to comply with all tree protection measures.

(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 not located within the boundaries of any Habitat Conservation Plan or Natural Communities Conservation Plan. The Project area and Survey Area are located outside the Permit Area for the Santa Clara Valley Habitat Plan. Therefore, there would be no impacts.

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?	☐	☒	☐	☐
(b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
(c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

Significance criteria established by CEQA Guidelines, Appendix G.

5.5.1. Setting

This section describes the existing setting and the existing cultural resources in the Project area and discusses potential impacts associated with the proposed Project on cultural resources. 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.

5.5.1.1. Environmental Setting

The proposed Project is in the City of Santa Clara (City) in Santa Clara County, CA. The Project area is a fully developed urban area and includes several existing transmission lines, including lines owned by SVP and PG&E. The proposed Project would be located in Section 27, Township 6S, Range 1W, Mount Diablo Meridian. The Project area includes residential, commercial, and industrial land uses. Existing SVP transmission and distribution power lines are located near and within the Project right-of-way (ROW). North of Bayshore Freeway/Highway 101, land uses are primarily residential, with single and multi-family homes, and with commercial and industrial uses south of Montague Expressway and west of Lafayette Street. South of Bayshore Freeway/Highway 101, land uses are primarily light industrial uses and low-rise office buildings.

5.5.1.2. Historic Context

Prehistory

Paleoindian Period (11,500–4,500 years before present [BP]). Native American occupation and use of the Santa Clara Valley began 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 generally considered to be represented by wide-ranging mobile hunters and gatherers. Throughout California, the Paleoindian sites are most often represented by isolated fluted projectile points, although sites dating to this time period in the Bay Area are sparse. The Coyote Narrows (CA-SCR-177) and the Metcalf Creek Site (CA-SCL-178) sites in the Santa Clara Valley, are considered two of the oldest cultural deposits in the Bay Area. They were discovered in buried soil and dated between 11,000 and 9,500 years old (Fitzgerald and Porcasi, 2003; Hildebrandt, 1983).

Early Horizon (4,500–3,500 BP). The Early Horizon period 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 components in the Santa Clara Valley. The Metcalf Creek Site (CA-SCL-178) 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 a more sedentary life, regional symbolic integration, and increased regional trade in the Bay Area, beginning at about 3,500 BP, 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, charcoal, fire-altered rock, fish, bird, and mammal remains. The presence of significant numbers of mortars and pestles suggests 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, 1991).

Late Horizon Period (1,500 BP–A.D. 1769). Late Horizon sites are the most numerous and are composed of extensive midden deposits, indicating a more sedentary lifestyle. Important mound/ midden sites along the Peninsula margins include the University Village site (CA-SMA-77), the San Bruno Mountain mound (CA-SMA-40), and the Ynigo Mound (CA-SCL-12/H). Several technological and social developments characterize the Late Horizon period such as the introduction of the bow and arrow, which replaced the atlatl and dart. Dietary emphasis on acorns and seeds is prevalent in the materials recovered from excavated sites. This change from hunter-gatherers 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 (Clark, 1989; Levy, 1978).

Ethnography

A review of the ethnographic context for the Project area is presented in Section 5.18, 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; Winther, 1935; Cutter, 1978).

Mexican Period (A.D. 1822–1848). The 1822 Mexican revolt against Spain followed by the 1834 secularization of the missions changed land ownership patterns in the Santa Clara Valley. The Spanish philosophy of governance was directed at the founding of presidios, missions, and secular towns, with the land held by the Crown. In contrast, the later Mexican policy stressed individual ownership of the land. During the Mexican Period, vast tracts of land, including former mission lands that had reverted to public domain, were granted to individuals (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; further population expansion resulted during 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 rancho, pueblo, and mission lands in the Santa Clara Valley were subdivided as the result of population growth, Anglo-American takeover, and the confirmation of property titles. Large cattle ranches were converted to farming of crops; this agricultural land-use pattern continued throughout the American Period. During this period, agricultural experimentation took place. After 1875, the success of many agricultural experiments and expanded access to markets via rail encouraged the development of fruit production in the Santa Clara Valley. From 1875 onward, the expanding fruit market led to innovations in fruit preservation and shipping, including: drying fruit, canning fruit, and shipping fresh fruit in refrigerated cars. This created a wider economic boom that attracted new residents to the Santa Clara Valley (Broek, 1932; Winther, 1935). The City of San Jose served as the County seat, a primary service, financial and social center. Since the 1990s, the agrarian land-use pattern has been 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 resulted in the designation of the general region as the “Silicon Valley.”

5.5.1.3. Records Search

Aspen submitted a California Historical Resources (CHRIS) Data Request for the Project to the Northwest Information Center at Sonoma State University requesting data within 125-foot radius of the Project area. On April 9, 2024, the results were received identifying one previously recorded resource/site within 125-foot radius of the Project area, a historic-age site consisting of buildings and structures. This resource does not fall within the Project area and will not be impacted. Additionally, a review of the CA Built Environment Resource Directory and National Register of Historic Places identified the Agnes State Hospital campus as being directly adjacent to the Project area and will not be impacted by the Project. Lastly, the record search identified a total of 26 cultural resources studies that have been conducted within 125-foot radius of the Project area. Of these 26 studies, 20 of them include all or a portion of the Project area (Table 5.5-1).

The records search included a review of the following registers and lists.

- National Register of Historic Places (NRHP)
- California Register of Historic Resources (CRHR)
- California State Historical Landmarks
- California Points of Historical Interest
- California Inventory of Historic Resources
- Santa Clara County Heritage Resource Inventory
- California Built Environment Resource Directory (BERD)
- City of Santa Clara Historic Survey Complete Report – 1981

Table 5.5-1. Cultural Resources Reports Within Project Area

Report No.	Author	Year	Study
S-004486	Marianne Fazio	1978	Field reconnaissance of parcels along Mission College Boulevard in Santa Clara (letter report)
S-006066	N/A	1983	Data Recovery Plan for the Guadalupe Corridor Transportation Project, Santa Clara County, California
S-008387	David Chavez	1980	Archaeological Resources Assessment for the Guadalupe Corridor Alternatives Analysis Draft Environmental Impact Statement: Santa Clara County, California
S-014230	Robert Cartier, Allika Ruby, Jason Bass, and Mike Kelley	1992	Evaluation of Archaeological Resources for the San Jose/Santa Clara Nonpotable Water Reclamation Project

Report No.	Author	Year	Study
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-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-019424	John Holson	1997	Cultural Resources Survey for the Los Esteros Project, Santa Clara County (letter report)
S-020691	Miley P. Holman	1997	Archaeological Field Inspection of the City of Santa Clara Northern Receiving Station, Santa Clara, Santa Clara County, California (letter report)
S-021137	Michael R. Corbett and Stuart A. Guedon	1996	Archaeological Resources Review, Agnews West Campus, City of Santa Clara, Santa Clara County, California
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-023356	Ward Hill	1999	Historic Property Survey Report, Montague Expressway Project, Cities of Santa Clara, San Jose and Milpitas, Santa Clara County, California
S-023400	N/A	2000	Addendum No. 1: Cultural Resources Assessment, PG&E Proposed Northeast San Jose Transmission Reinforcement Project
S-024980	Colin I. Busby	2000	Sun Microsystems Santa Clara Campus Project, Agnews West Campus, Archaeological Monitoring Closure Report, Phase 1 (July 1998 to December 1999) (letter report)
S-028016	Colin I. Busby	2002	Agnews (West) Family Housing, Rivermark Master Plan Parcel 26, Currently Vacant Parcel, City of Santa Clara, Santa Clara County, Archaeological Monitoring Closure Report (letter report)
S-033061	Nancy Sikes, Cindy Arrington, Bryon Bass, Chris Corey, Kevin Hunt, Steve O'Neil, Catherine Pruett, 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-036715	N/A	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-039040	N/A	2008	Archaeological Assessment Report, 49ers Stadium Project - Santa Clara, Santa Clara County
S-045670	Kathleen Kubal	2014	Historic Property Survey Report, US 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

Report No.	Author	Year	Study
S-004486	Marianne Fazio	1978	Field reconnaissance of parcels along Mission College Boulevard in Santa Clara (letter report)
S-006066	N/A	1983	Data Recovery Plan for the Guadalupe Corridor Transportation Project, Santa Clara County, California
S-008387	David Chavez	1980	Archaeological Resources Assessment for the Guadalupe Corridor Alternatives Analysis Draft Environmental Impact Statement: Santa Clara County, California
S-014230	Robert Cartier, Allika Ruby, Jason Bass, and Mike Kelley	1992	Evaluation of Archaeological Resources for the San Jose/Santa Clara Nonpotable Water Reclamation Project
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-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.

5.5.1.4. Native American Heritage Commission and Native American Consultation

A search of the Sacred Lands File database from the Native American Heritage Commission (NAHC) in Sacramento, California, was conducted. The record search of the NAHC Sacred Lands File was completed with negative results (i.e., no records found). Assembly Bill 52 Native American consultation is discussed in Section 5.18 (Tribal Cultural Resources).

5.5.1.5. Regulatory Background

State

State of California CEQA Guidelines. State of California CEQA Guidelines require that historical resources and unique archaeological resources be considered during the CEQA review 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 (§15064.5(b)(3)).

CEQA Guidelines Section 15064.5(a)(3). In accordance with 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 (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 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 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 (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.

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?

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 government agencies on specific development applications. The following overarching Goals and Policies are identified with regard to architectural and built environment resources:

City of Santa Clara Historical and Landmarks Commission. To support its historic preservation goals, the City established a Historical and Landmarks Commission and obtained recognition by the State Office of Historic Preservation as a Certified Local Government (CLG). 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.*

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. The record search did not identify any resources that meet the definition of a historical resource within the Project area, thus no known historical resources will be impacted. Although no known historical resources have been identified within the Project area, there remains the possibility that presently unidentified historical resources exist below the ground surface, as both Project options involve some level of ground disturbance. Unknown buried resources could be 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, thereby reducing this impact to less than significant.

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 materials during Project work. This program may be combined with any similar required program, such as for biological resources. The WEAP will 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, construction work within 50 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, 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 California Register, 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 as both Project options involve some level of ground disturbance. Unknown buried archaeological resources 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 archaeological resources, thereby reducing this potential impact to a less than significant level.

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, with both Project options involving some level of ground disturbance, 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 MM CR-2, which requires evaluation, protection, and appropriate disposition of human remains, would reduce this potential impact to a less than significant level.

MM CR-2 Treatment of Human Remains. Any 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 of the site is to be called and informed of the discovery. 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 landowner for treatment or disposition of the human remains. If the descendant does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from further disturbance. If the landowner 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		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
(a)	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
(b)	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Significance criteria established by CEQA Guidelines, Appendix G.

5.6.1. Setting

Silicon Valley Power, the City of Santa Clara’s municipal electric utility, 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 businesses of the City of Santa Clara) a highly reliable source of electric power at low, stable rates (City of Santa Clara, 2024).

SVP is proposing to construct approximately 2.24 miles of a new overhead and/or partially underground 115 kV transmission line. The NRS to KRS 115 kV Transmission Line Project would be built to accommodate energization at 230 kV, however it would initially be operated at 115 kV. The SVP electric load has been growing in recent years, as evidenced by electricity consumption data gathered by the California Energy Commission shown in Table 5.6-1 (CEC, 2023a).

Table 5.6-1. Electricity Consumption for Load Served by SVP (million kWh per year)

Sector, Served by SVP	2018	2019	2020	2021	2021
Ag & Water Pump	0.03	0.08	0.10	0.09	0.09
Commercial Building	2393.16	2437.06	2547.24	2835.04	3164.39
Commercial Other	41.52	43.80	44.25	42.40	39.10
Industry	862.57	821.66	816.73	835.54	852.06
Mining & Construction	24.74	35.63	46.50	73.54	96.72
Residential	226.01	234.49	264.73	241.90	261.80
Streetlight	3.50	3.00	3.00	4.39	4.39
Total Electricity Consumption	3551.53	3575.73	3722.54	4032.90	4418.54

Note: Usage expressed in millions of kWh (one million kWh equals one gigawatt-hour or GWh).

Source: CEC, 2024; 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 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 power 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. The IRP must also consider how renewable generation, grid operational efficiencies, energy storage, and distributed resources (including energy efficiency) serve to meet the peak hour energy and reliability needs. On December 5, 2023, the City Council approved SVP’s most-recent IRP (SVP, 2023), and SVP transmitted the 2023 IRP to the CEC for review in May 2024.

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 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. Construction activities would consume nonrenewable energy resources, primarily petroleum-based transportation fuels (diesel and gasoline), to power construction equipment and vehicles. The short-term use of fuels by equipment and motor vehicle trips during construction would be necessary to install the transmission line. The total energy requirements during construction are not quantified within the Project Description. However, the use of nonrenewable resources can be estimated in terms of the volumes of diesel and gasoline, by reviewing the products of combustion of these fuels (e.g., the quantities of greenhouse gases would be directly proportional to the volumes of fuels used). Based on the anticipated quantities of carbon dioxide equivalent (CO₂e) emissions estimated as 641 metric tons of CO₂e (in Section 5.8, Greenhouse Gas Emissions), approximately 63,000 gallons of diesel fuel⁵ would likely be used for Project construction over approximately 14 months.

To put these volumes into perspective, data from the CEC indicate that California’s refineries normally produce around 2.0 million barrels per week of diesel and 6.2 million barrels per week of gasoline (CEC, 2023b). This amounts to statewide production of roughly 12 million gallons of diesel and 37.2 million gallons of gasoline each day. In comparison, the total diesel fuel volume used during the entirety of Project construction (63,000 gallons) would represent less than a percent of California’s typical daily production volume (12 million gallons per day).

⁵ Note: The volume of diesel fuel used can be approximated from an emission factor of 10.2 kg CO₂ per gallon, based on the fuel heating value (0.138 million British thermal units per gallon) multiplied by the default CO₂ emission factor (73.96 kg CO₂ per million British thermal unit), in Table 2-3 of Title 17, California Code of Regulations, Section 95115.

Operations, including inspection, patrol, and maintenance of the Project components would also require use of fossil fuel resources for routine upkeep. The energy used by the Project during construction and operation would not be wasteful, inefficient, or unnecessary considering the new facilities that would increase system reliability, and no potentially significant environmental impact would occur due to the direct or indirect energy consumption of the 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 increase SVP's system capacity and reliability. The transmission line will allow energy to be balanced and redistributed within SVP's transmission receiving stations. This line will allow SVP to serve the new load growth that is projected based on SVP's forecasted load growth within the City over the next several years. The Project would neither conflict with nor obstruct state or local plans for renewable energy or energy efficiency, and, therefore, would have no impact on those plans. 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.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐
iv) Landslides?	☐	☐	☐	☒
(b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
(c) Be located on 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?	☐	☒	☐	☐
(d) Be located on expansive soil, as defined in Table 18.1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*	☐	☒	☐	☐
(e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
(f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

*Geology and Soils question (d) reflects the current 2016 California Building Code (CBC), which is based on the International Building Code (2015), effective January 1, 2017. The CBC is updated every three years. 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 could 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 for the Project route and surrounding area from published and unpublished literature, GIS data, and online sources. Data sources included geologic literature from the U.S. Geological Survey and California Geological Survey, and other readily available online reference materials. The study area for geology and soils is defined as the Project route and the areas immediately adjacent to the proposed Project for most geologic and soils topics with the exception that the study area related to seismically induced ground shaking includes significant regional active and potentially active faults within 50 miles of the proposed Project.

5.7.1.1. Regional Geologic Setting

The Project site is in the Santa Clara Valley, a relatively flat, elongate alluvial basin, in the Coast Ranges geomorphic province of California. The Santa Clara Valley is part of large structural depression that extends from south of Hollister to north of Santa Rosa and includes the San Pablo and San Francisco Bays (Norris & Webb, 1976). The Santa Clara Valley is bordered on the west and southwest by the Santa Cruz Mountains and on the east by the Diablo Mountain Range. The San Francisco Bay borders the Santa Clara Valley to the north, west, and east along its shorelines. The average slope of the valley floor ranges from nearly flat to about 2 percent grade, with the surrounding hillsides having steeper grades (City of Santa Clara, 2011).

The Coast Ranges geomorphic province 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 formed by streams draining from the adjacent mountains during recent geologic times. The area's groundwater aquifers occur in the alluvial sediments. The alluvial deposits in the Santa Clara Valley are derived from the Diablo Range and Santa Cruz Mountains. In the north-central area of the Santa Clara 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 Santa Clara Valley), and eroded rock clay loam (foothills) (City of Santa Clara, 2011).

5.7.1.2. Local Geology

Most of the City of Santa Clara (City) is located on a gently sloping area of the valley floor in the north-central portion of the Santa Clara Valley. The City is primarily situated on alluvial fan deposits consisting 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 for flood control have been constructed over many but not all of the natural levee deposits (City of Santa Clara, 2011). The Project area is mapped as being underlain by alluvial surficial sediments consisting of Holocene alluvial clay soil which includes bay mud deposits (Dibblee and Minch, 2005) and Holocene fine grained alluvial fan deposits generally containing large percentages of clay and fat clay (CGS, 2001). Based on Pleistocene alluvium contour mapping Pleistocene alluvium is located between approximately 30 to 35 feet below ground surface (Helley, 1990).

Artificial Fill. Although not mapped along the Project alignment or immediate vicinity (Dibblee and Minch, 2005), artificial fill, often referred to as undocumented or man-made fill, has been placed throughout the City in developed areas and likely underlies portions of the Project alignment. Generally, artificial fill consists of varying amounts of sand, clay, and gravel, and may have local areas of man-made debris such as lumber, concrete and brick fragments, and industrial slag materials in areas of undocumented or very old fill. 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 of Santa Clara 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).

5.7.1.3. Soils

Soils within the Project area reflect the underlying rock type, the extent of weathering of the rock, the degree of slope, and the degree of human modification. The Project route is underlain by four soil associations, identified from south to north as the Urban Land, Urban Land-Hangerone complex, Urban Land–Clear Lake complex, and the Urban Land–Campbell complex (NRCS, 2024). These soils are all identified as occurring on basin floors with slopes of 0 to 2 percent. Urban Land is a miscellaneous area,

identified by the NRCS as having little to no soil material and supports little to no vegetation; Urban Land soil parent material consists of disturbed and human transported material. The Hangerone component of the Urban Land-Hangerone complex is poorly drained and consists primarily of clay, with some clay and gravelly loam, the Clear Lake component of the Urban Land-Clear Lake complex is poorly drained and consists of silty clay, and the Campbell component of the Urban Land – Campbell complex is moderately well drained and consists of silt loam, silty clay loam, and silty clay (NRCS, 2024). The parent material for the Hangerone, Clear Lake, and Campbell components of the above complexes is alluvium derived from metamorphic and sedimentary rock and/or alluvium derived from metavolcanics (NRCS, 2024).

Expansive soils are characterized by their ability to undergo significant volume change (shrink and swell) due to changes in soil moisture content. Change 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 affect the structural integrity of buildings and other structures. Soils with moderate to high shrink-swell potential would be classified as expansive soils. Expansion potential of the Urban Land soils underlying the proposed Project route is undetermined, however the Hangerone, Clear Lake, and Campbell components of the soil complexes underlying the Project all have very high linear extensibility (shrink-swell potential) (NRCS, 2024).

Weak (loose or poorly consolidated) soils can compress, collapse, or spread laterally under the weight of buildings and fill, causing settlement. 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 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 flowing water. Soils containing high percentages of fine sands and silt and that are low in density, are generally the most erodible. 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. With increasing clay and organic matter content of soils, the potential for erosion decreases. Clays act as a binder to soil particles, reducing the potential for erosion. Soil erosion hazards are not identified for the Urban Land soils, however the Hangerone and Clear Lake components of two of the soil complexes have moderate potential for both wind and water erosion and the Campbell component of the third soil complex underlying the Project has moderate to low potential for wind erosion and moderate to high potential for erosion by water (NRCS, 2024).

5.7.1.4. Subsidence

Land subsidence can occur in valleys containing aquifer systems that are, in part, made up of fine-grained sediments and that have undergone extensive groundwater development. Land subsidence is generally characterized by a broad zone of deformation where differential settlements are small. The main cause of subsidence in California is groundwater pumping. As groundwater is withdrawn, the pore-fluid pressure in the sediments decreases, allowing the weight of the overlying sediment to permanently compact or compress the fine-grained units. This effect is most pronounced in younger, unconsolidated sediments. The effects of subsidence include damage to buildings and infrastructure, increased flood risk in low-lying areas, and lasting damage to groundwater aquifers and aquatic ecosystems.

Between about 1915 and 1969, the northern portion of Santa Clara County experienced as much as 13 feet of subsidence due to excessive pumping of groundwater. Over 100 square miles were affected. from San Jose to southern San Francisco Bay (SCCVWD, 2024). The Santa Clara Valley Water District's aquifer

recharge efforts started in the mid-1930s. Creating ponds and reservoirs, importing water, and implementing a pumping tax in 1964 proved successful in allowing groundwater levels to recover (USGS, 2024a). By about 1970, subsidence was essentially halted because of investments in reservoirs, diversification of water supplies, and groundwater recharge, along with management programs that allowed groundwater conditions to recover (SCCWD, 2024).

5.7.1.5. 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 will be 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.

The proposed Project is on the gently sloping and nearly flat valley floor, is along flat graded parcels and would not be subject to landslides. According to landslide hazard mapping compiled by the County of Santa Clara (2012), the City of Santa Clara and the proposed Project area are not within any landslide hazard zones and the California Geological Survey (CGS) does not map and any landslide hazard zones within the city nor at or near the proposed Project (CGS, 2024a).

5.7.1.6. Seismicity

Under the Alquist-Priolo Act, seismic faults are classified as a Holocene active, a Pre-Holocene, Age-undetermined, or inactive, based on the following criteria (CGS, 2018):

- **Holocene-active faults:** Faults that have moved during the past 11,700 years. This age boundary is an absolute age (number of years before present) and is not a radiocarbon (^{14}C) age determination, which requires calibration in order to derive an absolute age.
- **Pre-Holocene faults:** Faults that have not moved in the past 11,700 years, thus do not meet the criteria of “Holocene-active fault” as defined in the A-P Act and SMGB regulations. This class of fault may be still capable of surface rupture but is not regulated under the A-P Act. Depending on available site-specific and regional data such as proximity to other active faults, average recurrence, variability in recurrence, the timing of the most recent surface rupturing earthquake, and case studies from other surface rupturing earthquakes, the Project geologist may, but is not required to, recommend setbacks. Engineered solutions can also be considered by a licensed engineer operating within his or her field of practice.
- **Age-undetermined faults:** Faults where the recency of fault movement has not been determined. Faults can be “age-undetermined” if the fault in question has simply not been studied in order to determine its recency of movement. Faults can also be age-undetermined due to limitations in the ability to constrain the timing of the recency of faulting. Examples of such faults are instances where datable materials are not present in the geologic record, or where evidence of recency of movement does not exist due to stripping (either by natural or anthropogenic processes) of Holocene-age deposits. Within the framework of the A-P Act, age-undetermined faults within regulatory Earthquake Fault Zones are considered Holocene-active until proved otherwise.
- **Inactive:** A fault may only be presumed to be inactive based on satisfactory geologic evidence; however, the evidence necessary to prove inactivity sometimes is difficult to obtain and locally may not exist.

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

The Project area will be subject to regional ground shaking associated with earthquakes on faults of the San Andreas fault system. Active faults of the San Andreas system are predominantly strike-slip faults accommodating translational movement between the Pacific and North American tectonic plates.

Active and potentially active faults within 50 miles of the approximate center of the proposed Project 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	Distance¹ (miles)	Estimated Maximum Magnitude^{2,3}	Fault Type¹
Hayward–Rodgers Creek	5.3 ²	6.8–7.3	Right Lateral Strike Slip, 90° dip
Monte Vista–Shannon	6.9 ²	6.5	Thrust Fault, dips 45° W
Calaveras	8.8 ²	6.4–7.0	Right Lateral Strike Slip, 90° dip
San Andreas	11.1 ²	7.1–7.9	Right Lateral Strike Slip, 90° dip
Zayante–Vergeles	20.7	7.0	Right Lateral Strike Slip, 90° dip
Greenville Connected	23.9	7.0	Right Lateral Strike Slip, 90° dip
San Gregorio Connected	24.9	7.5	Right Lateral Strike Slip, 90° dip
Mount Diablo Thrust	24.6	6.7	Blind Thrust, dips 38° NE
Great Valley 7	33.5	6.9	Blind Thrust, dips 15° W
Monterey Bay–Tularcitos	33.6	7.3	Right Lateral Strike Slip, 90° dip
Green Valley Connected	35.3	6.8	Right Lateral Strike Slip, 90° dip
Ortogonalita	38.0	7.1	Right Lateral Strike Slip, 90° dip
Great Valley 5, Pittsburg Kirby Hills	43.7	6.7	Blind Thrust (reverse), dips 90°
Great Valley 8	43.9	6.8	Blind Thrust, dips 15° W
Quien Sabe	45.6	6.6	Right Lateral Strike Slip, 90° dip

1 Fault distances and type obtained from the 2008 National Seismic Hazard Maps – Source Parameters website (USGS, 2024b). Fault distances measured to generalized to the National Seismic Hazard Map (NSHM) fault trace.

2 Fault distance modified using USGS and CGS Quaternary Faults data (USGS and CGS, 2024).

3 Maximum Earthquake Magnitude – the maximum earthquake that appears capable of occurring under the presently known tectonic framework; magnitude listed is “Ellsworth-B” magnitude from USGS 2008 National Seismic Hazard Maps - Source Parameters unless otherwise noted.

4 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 Hayward fault (part of the Hayward-Rodgers Creek fault zone), no known active or potentially active faults are mapped crossing or immediately adjacent to

the Project site (CGS, 2024a). Additionally, the City of Santa Clara is not crossed by any faults zoned under the Alquist-Priolo Earthquake Fault Zoning Act (CGS, 2024a; City of Santa Clara, 2011). There is no risk of surface fault rupture at the Project site.

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. Numerous moderate and large earthquakes have occurred within 50 miles of the Project site, including 44 earthquakes of M 5.5 or greater, which includes 16 earthquakes of M 6.0 to M 6.9, and one earthquake of greater than M 7.0 (USGS, 2024c). Catastrophically damaging earthquakes in the Project area include:

- M6.9 1989 Loma Prieta Earthquake – resulted in 63 dead, 3,737 injured, and \$6 billion in property damage in the region;
- M7.9 1906 San Francisco Earthquake – resulted in 3,000 dead and \$524 million in property damage (includes damage from fire); and the
- M6.8 1868 Hayward Fault Earthquake – 30 dead and \$350,000 in property damage (USGS, 2024c; CGS, 2024b).

The City is located in a region characterized by a moderate to high ground shaking hazard. (City of Santa Clara, 2011). Periodic earthquakes accompanied by surface displacement can be expected to continue in the region.

The intensity of the seismic shaking, or strong ground motion, along the proposed Project route during an earthquake depends 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. 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. Earthquake shaking hazards are commonly calculated by projecting earthquake rates based on earthquake history and fault slip rates, the same data used for calculating earthquake probabilities. The Probabilistic Seismic Hazard Map (PSHM) for California was used to estimate ground shaking hazards along the proposed Project (CGS, 2016). The PSHM for California shows the relative intensity of ground shaking from intermediate-period (1.0 second) earthquake shaking related to anticipated future earthquakes. Intermediate-period (1.0 second) shaking affects tall, relatively flexible buildings, but also correlates well with overall earthquake damage. The shaking potential is calculated as the level of ground motion that has a 2% chance of being exceeded in 50 years, which is the same as the level of ground-shaking with a 2475-year average repeat time. The estimated intermediate-period (1.0 second) ground accelerations for the entire route is 1.15 g, which represents a potential for strong ground shaking (CGS, 2016).

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 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 occur. To determine liquefaction susceptibility of a region, three major factors are considered: the density and textural characteristics of the alluvial sediments; the intensity and duration of ground shaking; and the depth to groundwater.

The City of Santa Clara is almost entirely within a zone of liquefaction hazard, including the proposed Project area (County of Santa Clara, 2012). Ground failure caused by liquefaction is thus a substantial concern for much of the City's development. The Project site is within a mapped CGS liquefaction hazard zone (CGS, 2024a). Additionally, the Project area is underlain by potentially liquefiable young alluvial sediments with shallow (less than 10 feet below ground surface) to artesian water levels (water levels that flow to the surface) (CGS, 2001; DWR, 2024).

5.7.1.7. Paleontology

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. These are valued for the information they yield about the history of the earth and its past ecological settings. According to the City of Santa Clara General Plan EIR, the City is situated on alluvial fan deposits of the Holocene age, consisting of gravel, sand and finer sediments. Along the City's major streams are natural levee deposits consisting of silt and clay, also of the Holocene age. Geologic units of Holocene age are generally not considered sensitive for paleontological resources, because biological remains younger than 10,000 years are not usually considered fossils. Holocene materials in the Santa Clara Valley may have some level of sensitivity for paleontological resources (City of Santa Clara, 2011).

In the Santa Clara Valley, where these Holocene age sediments overlie older, Pleistocene age sediments that have a high potential to contain paleontological resources. The Pleistocene age sediments, often found at depths of 10 feet (3 meters) or more below the ground surface in the region, have yielded the fossil remains of plants and extinct terrestrial Pleistocene vertebrates (City of Santa Clara, 2011). Pleistocene alluvial sediments may be found at depths of 30 to 35 feet below Holocene alluvium in the Project area (Helley, 1990).

The Project route is underlain by artificial fill over young channel deposited alluvial sediments which have no and low paleontological sensitivity, respectively; the young alluvial sediments are unlikely to have significant fossils due to their age and their high energy method of deposition. The greatest anticipated depth of any excavation along the proposed Project would be approximately 20 to 35 feet (dependent upon pole height) for the 115 kV transmission line tubular steel poles and pole foundations with a typical auger diameter of 8 feet. All other excavations would be at shallower depths.

5.7.1.8. 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, 2023). The California Building Code, Title 24, Part 2 provides building codes and standards for design and construction of structures in California. The 2023 CBC is based on the 2021 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.

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 identifies vertebrate fossils, their taphonomy (fossilization process) and associated environmental data, and fossiliferous deposits as scientifically significant nonrenewable paleontological resources (Society of Vertebrate Paleontology, 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” (Society of Vertebrate Paleontology, 2010). These categories include high, undetermined, low, and no potential.

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 (City of Santa Clara, 2014). Policies in the General Plan related to geologic hazards and paleontologic resources that apply to the proposed Project are listed below.

- **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 5.6.3-P2.** Encourage salvage and preservation of scientifically valuable paleontological or archaeological materials.
- **Policy 5.6.3-P4.** Require that a qualified paleontologist/archaeologist monitor all grading and/or excavation if there is a potential to affect archeological or paleontological resources, including sites within 500 feet of natural water courses and in the Old Quad neighborhood.
- **Policy 5.6.3-P5.** In the event that archaeological/paleontological resources are discovered, require that work be suspended until the significance of the find and recommended actions are determined by a qualified archaeologist/paleontologist.

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 Alquist-Priolo mapped or other known faults cross the proposed Project or are immediately adjacent to it. Therefore, there is no potential for the Project to be damaged by fault rupture and no project activities would result in triggering or directly or indirectly causing primary fault rupture.

- ii. **Strong seismic ground shaking?**

LESS THAN SIGNIFICANT. The proposed Project would be in an area mapped as likely to experience strong ground shaking in the event of a large earthquake. The area has historically experienced moderate to severe ground shaking due to the numerous earthquakes that have occurred in the San Francisco Bay Area. These earthquakes have resulted in deaths and injuries and severe damage to property and structures.

Except during construction there would be no full-time onsite workers. There would be no occupied structures as part of the Project. During operations, workers will be onsite periodically for as needed inspections and maintenance. The proposed Project may be subject to strong ground shaking during the Project’s lifetime. While the potential for seismically induced ground shaking in the proposed Project area during Project operation is unavoidable, the transmission line structures would be designed to meet or exceed all applicable local and State seismic design criteria. Design of these structures to all appropriate seismic design criteria reduces the potential for loss, injury, or death of workers or the public to less than significant.

iii. Seismic-related ground failure, including liquefaction?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. The proposed Project is within a CGS liquefaction hazard zone and is underlain by potentially liquefiable alluvial sediments and very shallow groundwater. Therefore, the potential for liquefaction-related damage to the transmission line structures is high. The transmission line structures would be designed to appropriate local and State guidelines. However, to ensure that direct and indirect impacts associated with seismically induced ground failures or liquefaction would be less than significant, mitigation measure MM 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. Because seismically induced liquefaction-related ground failure has the potential to damage or destroy Project components, SVP shall cause design-level geotechnical investigation for the Project to be performed that shall include investigations designed to assess the potential for geologic and seismic hazards, and specifically include evaluation of the potential for liquefaction and expansive soils to affect the 115 kV line structures. Where liquefaction or expansive soils hazards are found to exist/verified, appropriate engineering design and construction measures shall be incorporated into the Project design as deemed appropriate by the Project engineer. Finalized Project design incorporating geotechnical recommendations shall be submitted to the City 60 days prior to Project construction.

iv. Landslides?

NO IMPACT. The proposed Project would be located on a flat to relatively flat graded area on the gently sloping Santa Clara Valley floor and no known landslides have occurred in the Project vicinity. The Project route is not located within or near any CGS designated landslide hazard area (CGS, 2024a). Therefore, landslides and other slope failures are highly unlikely to occur and 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 WITH MITIGATION INCORPORATED. The Project route is in a flat to nearly flat urban area and grading would not be required for the proposed project. Excavation for tubular steel poles and foundations would occur as part of Project construction. Excavation/trenching for duct banks and vaults would occur under Option 2, to construct the underground segment. Surface disturbing activities such as excavation and trenching will be required for construction of the proposed Project but would be done in compliance with regulations pertaining to sediment and runoff control. Best management practices (BMPs) for sediment control would be implemented to manage temporary soil stockpiles. In addition, as noted in Section 5.10 Hydrology and Water Quality, a stormwater pollution prevention plan (SWPPP) or erosion control plan would be required under mitigation measure MM HYD-1 to address surface water quality. Implementation of this measure would ensure that the potential erosion or loss of topsoil is limited and reduced to a less than significant impact.

Mitigation Measure for Soil Erosion or Loss of Topsoil

MM HYD-1 SWPPP or Erosion Control Plan Development and Implementation. (See full text in Section 5.10, Hydrology and Water Quality.)

- (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 a zone of liquefaction hazard; therefore, structures could potentially suffer liquefaction-related damage. However, compliance with applicable local and State design regulations and implementation of mitigation measure MM G-1 (Conduct Geotechnical Investigations) 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) regarding 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. Although the Project site is in an area with known historic subsidence, subsidence in the Santa Clara Valley has been controlled/stopped due to activities and procedures put in place by the Santa Clara Valley Water District. The Project will not construct any new groundwater extraction wells and would not contribute to declining water levels and subsidence. Thus, there would be no impact from subsidence.

Mitigation Measure for Seismically Induced Liquefaction

MM G-1 Conduct Geotechnical Investigations. (See full text above.)

- (d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?**

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. Mapping by the NRCS indicates that the proposed Project is underlain by soil mapped as Urban Land, Urban Land-Hagerone complex, Urban Land–Clear Lake complex, and the Urban Land–Campbell complexes. Urban Land soils unit have undetermined expansive potential, however the Hagerone, Clear Lake, and Campbell components of the soil complexes underlying the proposed Project have very high expansive potential (NRCS, 2024). Expansive soils could impact the integrity and stability of above and underground structures, including tubular steel poles and pole foundations, and duct banks and vaults (Option 2), potentially resulting in damage to structures and potentially injuring workers or the public. Compliance with local and State design requirements would reduce potential impacts from expansive soils. However, to ensure that direct and indirect impacts associated with expansive soils would be less than significant, mitigation measure MM G-1 (Conduct Geotechnical Investigations) shall be implemented prior to final Project design to ensure that people or structures are not exposed to hazards from the Project associated with expansive soils.

Mitigation Measure for Expansive Soils

MM G-1 Conduct Geotechnical Investigations. (See full text above.)

- (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 for excavation and grading. Geologic units underlying the site consist of undetermined depths of artificial fill, Holocene alluvium, and Pleistocene alluvium. Depth to Pleistocene alluvium at the

site is estimated at 30 to 35 feet below ground surface (Helley, 1990). The Project excavation for the tubular steel pole foundations may exceed these depths in some limited locations, therefore, there is a small chance that Project ground disturbance for the pole excavations could potentially encounter older Quaternary alluvium (Pleistocene alluvial sediments) near the bottom of the auger holes that may contain unique paleontological resources. The possibility that previously unknown paleontological resources could be discovered and damaged or destroyed during Project ground disturbance would potentially constitute a significant impact absent mitigation. Implementation of mitigation measure 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 Paleontological Resources

MM G-2 Worker Training and Management of Paleontological Resources. 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. The qualified professional paleontologist shall prepare a Worker Environmental Awareness Program (WEAP) for potentially encountered paleontological resources, and training shall be provided for all staff who will be onsite during excavations. The WEAP shall show what local Pleistocene fossils look like in general, where they may appear in the Project, and how to proceed should material suspected to be a fossil is encountered.

The WEAP shall include procedures to follow if paleontological resources are encountered, including:

- A monitoring plan for soils generated from tubular pole foundation excavations that may encounter Pleistocene sediments. Workers may temporarily halt operations to allow for identification and collection of paleontological resources from soil spoil piles. If a potential significant paleontological resource is noted, a qualified paleontologist or paleontological monitor shall be called to the site identify and collect the fossil.
- A plan for treatment of 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.
- Paleontological resource collection treatment, and identification shall meet standards set forth in the Society of Vertebrate Paleontology (2010).

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?	☐	☐	☒	☐
(b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Significance criteria established by CEQA Guidelines, Appendix G.

5.8.1. Setting

Effects of GHG Emissions. Global climate is altered by the effects of greenhouse gases (GHG) in the atmosphere, creating what is commonly known as the “greenhouse effect.” These gasses trap some of the heat radiated from the Earth’s surface, thereby warming 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 and intensity. The standard definition of anthropogenic GHG emissions of concern includes six primary pollutants: CO₂, CH₄, N₂O, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). The most important and widely occurring anthropogenic GHG is CO₂, primarily from the burning 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 1950 onward, relatively comprehensive data sets of observations are available. Research by California’s Office of Environmental Health Hazard Assessment (OEHHA) reports certain climate change indicators by categorizing the effects as: changes in California’s climate; impacts to physical systems including oceans, lakes, rivers, and snowpack; and impacts to biological systems including humans, vegetation, and wildlife. The primary observed changes in California’s climate include increased annual average air temperatures, more-frequent extremely hot days and nights, and increased severity of drought. Impacts to physical systems affected by warming temperatures and changing precipitation patterns show decreasing snowmelt runoff, shrinking glaciers, and rising sea levels. Impacts to terrestrial, marine, and freshwater biological systems, with resulting changes in habitat, agriculture, and food supply are occurring in conjunction with the potential to impact human well-being (OEHHA, 2018).

GHG Emissions Trends. California first formalized a strategy to achieve GHG reductions in 2008, when California produced approximately 484 million metric tons of CO₂ equivalent (MMTCO₂e) according to the official Air Resources Board inventory. Statewide emissions have been declining in recent years. California’s sources of GHG emitted approximately 381 MMTCO₂e in 2021 (CARB, 2023). Globally, annual average GHG emissions were 56,000 MMTCO₂e per year for the decade 2010-2019 (IPCC, 2022). 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). AB 32 requires ARB to update the Scoping Plan at least every 5 years. Accordingly, the ARB released a 2022 Scoping Plan Update in November 2022 (CARB, 2022), which outlines a roadmap to achieve carbon neutrality by 2045.

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, including 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.

California Governor's Executive Order B-55-18 and Senate Bill 100 (SB 100). Executive Order B-55-18 establishes a statewide goal for California to achieve carbon neutrality by 2045. In September 2018, Senate Bill 100 (SB 100), revising and extending California's Renewables Portfolio Standard program, was signed into law. SB 100 accelerated the RPS targets and established the goals of 50 percent renewable energy resources by 2026 and 60 percent renewable energy resources by 2030. These RPS targets are codified according to compliance periods in Pub. Util. Code Section 399.30, as follows: 33 percent by December 31, 2020, 44 percent by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030. SB 100 also sets a target for California to achieve a GHG-free electricity supply for 100 percent of retail sales of electricity to California end-use customers by December 31, 2045. The 2022 Scoping Plan Update assesses progress towards achieving the updated 2030 targets, while laying out a path to achieve the SB 100 target of carbon neutrality no later than 2045 (CARB, 2022).

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, 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 mandatory reporting rule 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 Equipment (17 CCR 95350 to 95359). To reduce GHG emissions from electricity transmission and distribution equipment, ARB adopted a regulation for reducing or phasing-out SF₆ emissions from electric power system gas insulated switchgear. Reporting and inventorying requirements under this regulation apply to equipment, such as circuit breakers and transformers, at existing substations owned and operated by SVP. The proposed Project would not involve any change in SVP's existing gas insulated equipment covered by this rule.

City of Santa Clara, Climate Action Plan (CAP). The Santa Clara Climate Action Plan (CAP), updated and adopted on June 7, 2022, aligns the City's strategies with evolving state and local requirements for climate planning to achieve SB 32 targets for 2030 and carbon neutrality by 2045 (City of Santa Clara, 2022). By building on the prior Climate Action Plan adopted in 2013, the 2022 update accounts for the effects of ongoing state and local actions for reducing GHG identifies additional actions to further reduce GHG and evaluates actions enhance climate resiliency throughout the City. The City's 2022 CAP envisions a 40 percent reduction in emissions by 2030 (SB 32), with an interim target of an 80 percent reduction in emissions by 2035, as it moves toward a 2045 goal of net carbon neutrality (EO B-55-18) (City of Santa Clara, 2022).

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 construction activities may include mobilizing construction equipment, crews, and materials, excavating holes for poles, trenching for underground vault and cable installation, installing concrete foundations and equipment, installing poles, and stringing conductors. These activities during construction would cause GHG emissions from combustion of fuels used by the construction vehicles and equipment. Diesel and gasoline-powered construction equipment would include trucks for materials and crews, and the following types of equipment: backhoes, loaders, excavators, drill rigs, pumps, welders, pavers, rollers and generators. Equipment and motor vehicles would directly emit CO₂, CH₄, and N₂O due to fuel use and combustion.

The resulting one-time quantity of GHG emitted during the 14-month period of construction would be around 641 MTCO₂e (Appendix C) for the overhead option, based on use of the California Emissions Estimator Model (CalEEMod; v. 2022.1.1.22). These one-time project-level emissions would cease at the conclusion of construction when activities transition to routine O&M. The one-time project-level construction emissions would cease at the conclusion of construction and would be well below the threshold level of 10,000 MTCO₂e per year for annually recurring emissions from stationary sources (BAAQMD, 2023). Upon completion of construction, operation of the Project would not result in a notable incremental increase in GHG emissions from the baseline O&M activities conducted by SVP. The impact associated with GHG emissions would be less than significant. Therefore, the impact associated with 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 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 2022 Scoping Plan Update (ARB, 2022) 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 limited quantities of direct GHG emissions from the construction and O&M activities. The mix of sources power delivered to the end-use customers would not change as a result of the proposed Project. The proposed Project would improve the infrastructure used in delivery of SVP's energy supply and would not affect SVP's ability to supply renewable energy.

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 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 caused by use of fuels that are "covered" by the fuel suppliers subject to Cap-and-Trade requirements, these emissions would not conflict California's progress towards achieving GHG reductions.

As it does now, SVP would comply with ARB SF₆ regulations to inventory, report, and minimize SF₆ leaks through the use of new technology. The proposed Project would not add or modify any gas-insulated equipment in SVP's existing inventory and would not change the use of SF₆ in equipment. 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?	☐	☒	☐	☐
(b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
(c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
(d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☒	☐	☐
(e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 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?	☐	☐	☒	☐
(f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☒	☐	☐
(g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Significance criteria established by CEQA Guidelines, Appendix G.

5.9.1. Setting

This section addresses issues related to environmental hazards and hazardous materials. 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.

5.9.1.1. Existing and Past Land Uses

Existing and past land use activities are commonly used as indicators of sites or areas with the potential for hazardous material storage and use or potential environmental contamination to have occurred. For example, many current and historic industrial sites have contaminated soil or groundwater with hazardous substances. Other hazardous materials sources include leaking underground tanks in commercial and rural areas, contaminated surface runoff from polluted sites, and plumes of contaminated groundwater. The proposed Project area is in an urban area with a mix of residential, commercial, and industrial uses, with residential uses having increased significantly in density since the 1990s.

5.9.1.2. 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, state, and local regulations. Use of hazardous materials during construction of the proposed Project would primarily consist of fluids and fuels for construction equipment and vehicles; limited quantities of cleaning solvents, paints, and adhesives may also be used. Fueling of construction equipment and vehicles would take place in designated areas. Hazardous The use, storage, transport, and disposal of hazardous materials used in construction and operation and

maintenance of the proposed Project would be carried out in accordance with federal, state, and county regulations. No extremely hazardous substances (i.e., those governed pursuant to Title 40, Part 335 of the Code of Federal Regulations) are anticipated to be produced, used, stored, transported, or disposed of as a result of the proposed Project's construction.

5.9.1.3. Environmental Contamination

The proposed Project route is in a fully developed urban environment and passes through areas developed as residential, business park, commercial, and light industrial properties. A review of the State Water Resources Control Board (SWRCB) GeoTracker (SWRCB, 2024) and California Department of Toxic Substance Control (DTSC) EnviroStor (DTSC, 2024a) databases revealed there are 37 GeoTracker and five EnviroStor listings for sites with current or past environmental contamination within 0.25-miles of the proposed Project route. Several listings represent more than one property address/physical site. Of the GeoTracker listings, 10 are Cleanup Program listings and 27 are leaking underground storage tank (LUST) listings (SWRCB, 2024). All 27 of the LUST sites are listed as completed case closed. The EnviroStor sites include two State Response/NPL listings and three Voluntary Agreement cleanup listings. A summary of the GeoTracker Cleanup Program listings and the EnviroStor listings is presented in Table 5.9-1.

Table 5.9-1. Known Environmentally Contaminated Sites within 0.25-mile of the proposed Project

Site Name	Address	Distance and Direction from Alignment	Database and Status	Summary
SWRCB GeoTracker Sites				
Shaheen Property	4767 Lafayette Street, Santa Clara	130 feet E	Cleanup Program, Completed – Case Closed	Petroleum contaminated soil removed from former gas station and petroleum groundwater contamination naturally attenuated – No Further Action Case Closed issued in 2014
Anderson Construction	390 Norman Ave, Santa Clara	675 feet W	Cleanup Program, Open – Verification Monitoring	Site overlies shallow volatile organic compound (VOC) contaminated groundwater plume from neighboring property – Soil Vapor Intrusion Mitigation System installed and ongoing monitoring for new office building
Andite, Inc.	1440 Norman Ave, Santa Clara	785 feet W	Cleanup Program, Open – Site Assessment	From 1964 to 1985, Andite owned and operated a hard anodizing plant at the Site. Two groundwater plumes are present at the Site: VOCs and chlorinated aliphatic hydrocarbons (CAHs). Former source areas are located at the solvent dip tanks (northeast of the Site) and the former chemical storage areas (south of the Site). Bioaugmentation Pilot Testing conducted at site in 2004 b- 2005. Assessment, delineation of plume, and groundwater monitoring are ongoing.
Pacific Production Consulting	600 Laurelwood Road	1250 feet E	Cleanup Program, Completed - Case Closed	Soil and non-potable shallow groundwater contaminated by chlorinated solvents. Remedial activities included excavation and disposal of impacted soil and groundwater bio injection. Remnant

Site Name	Address	Distance and Direction from Alignment	Database and Status	Summary
				contamination below commercial/ industrial use levels remain. Groundwater plume appears to be naturally attenuating as of 2014. Site was closed in 2016 with a DEED Restriction on types of property use and no groundwater extraction
3060 Raymond Street Renovation	3060 Raymond Street, Santa Clara	670 feet NW of southern terminus	Cleanup Program, Open – Site Assessment	Historical industrial uses at and near site. Subsurface investigations revealed contaminants of concern in soil, soil vapor, and groundwater including VOCs, petroleum products and byproducts, pesticides, heavy metals. Site Management Plan prepared in 2023 and assessment monitoring ongoing.
Comstock Industrial Properties	795-805 Comstock St, Santa Clara	505 feet E	Cleanup Program, Completed-Case Closed	Contamination from previous industrial site uses. Low levels of petroleum hydrocarbons, polynuclear aromatic hydrocarbons (PAHs) were detected, pesticides and metals were encountered in some samples above regulatory levels in the soil. Low levels of pesticides were encountered in groundwater, and VOCs were detected in soil vapor. Residual contamination remains in on-site soil, groundwater, and/or soil vapor. Site closed with restrictions on use and with required Site Management Requirements.
715 Comstock Industrial Property	715 Comstock St, Santa Clara	950 feet E	Cleanup Program, Open – Site Assessment	Industrial site with elevated levels of naphthalene and petroleum products, heavy metals, and asbestos in soil and elevated levels of VOCs in soil vapor. No contaminants of concern were detected in groundwater. Site Management Plan conditionally approved and vapor monitoring ceased with approval
Sobronto Development Co. - Central Expressway	800 Central Expressway, Santa Clara	860 feet SE	Cleanup Program, Completed-Case Closed	Former concrete pipe manufacturing site. Low levels of waste oil and asbestos noted in soil at site and low levels of VOCs were detected in groundwater in 1987. No Further Action was granted to the site in 2005. In 2019 asked for additional information and history of the site. Site was listed as Case Closed-Completed in 2020.
Owens Corning	960 Central Expressway, Santa Clara	670 feet S	Cleanup Program, Open – Verification Monitoring	Leaks of petroleum USTs in the 1980s resulted in groundwater contamination at the site, VOC contamination was also attributed to upgradient sources. Petroleum contaminant clean-up order rescinded in 2001, but VOC monitoring continued. Low levels of VOC remain in

Site Name	Address	Distance and Direction from Alignment	Database and Status	Summary
				groundwater. Several Case Closure requests have been submitted. Elevated levels of VOCs encountered in soil vapor; investigation plan for VOCs in soil vapor approved in 2023.
DTSC EnviroStor Sites				
Gianera 2 – Habitat for Humanity	2261 – 2285 Gianera St, Santa Clara	120 feet S	Voluntary Cleanup – Certified	Low levels of pesticide below residential levels detected in soil. Elevated levels of lead were detected. Impacted soil was removed from residence yards in 2011 and was certified as no further remedial action required
Hogan Drive Property	Hogan Drive and Lafayette Street, Santa Clara	190 feet E	Voluntary Cleanup – No Further Action	Former dry cleaner site (part of the Shaheen Property residential subdivision). Soil, soil vapor, and groundwater testing detected PCE in shallow groundwater, soil, and soil vapor in 2007. Excavation of contaminated soil, bio-remediation of groundwater, and natural attenuation. Reduced levels of VOC were detected in soil vapor and groundwater in 2007. In 2008 DTSC requested a revised human Health Risk Assessment be prepared.
Agnews State Hospital	Avenue K and Lick Road, Santa Clara	1000 feet E	State Response/NPL – Certified	A major portion of the former Agnews Developmental Center (ADC) has been cleaned up under the Department of Toxic Substances Control (DTSC) oversight. Potential soil contaminants at the site were asbestos, contaminated soil, hydrocarbon solvents, and lead. Little information is available. Site listed as certified by the DTSC in 1985. USTs and lifts in the automotive compound removed in 2022 and contaminated soil and groundwater removed; case closed by SWRCB in 2002.
Former Pycon Inc Facility	3501 Leanard Court, Santa Clara	1200 feet W	Voluntary Cleanup -	Clean up of metal impacted soils from former nickel/copper plating business. Groundwater did not have elevated copper concentrations at the site. Impacted soil was removed under the oversight of the local Agency (SFCD). DTSC reviewed data on residual copper and nickel in the soil and concluded no further action required at the site.
Pittsburgh-Des Moines Steel	3500 Bassett St, Santa Clara	450 feet W	State Response/NPL - Certified	Site was a 31-acre steel fabrication plant from 1946-1976 and a spray painting facility from 1976 to 1982. Soil contamination due not spilled lead-based paint and leakage from an underground gasoline

Site Name	Address	Distance and Direction from Alignment	Database and Status	Summary
				tank. In 1983, 779 cubic yards of contaminated soil from different areas on the site was removed. All soil covering the underground gasoline storage tank was removed and all spilled gasoline was removed. Residual soil contamination may be present.

Sources: DTSC, 2024a, and SWRCB, 2024a

The proposed Project is not located on sites identified on a list of hazardous waste and substances sites pursuant to Government Code Section 65962.5, including the Cortese List (DTSC, 2024b), however it is located near several hazardous waste and substances sites included in the SWRCB GeoTracker and DTSC EnviroStor websites (SWRCB, 2024; and DTSC, 2024a)

5.9.1.4. Schools

There are two schools located within 0.25-miles of the proposed Project:

- the Kathryn Hughes Elementary School at 4949 Calle De Escuela, 0.19-miles northeast of the northern terminus (NRS); and
- the North Valley Baptist School at 941 Clyde Ave, 0.23-miles east of the proposed Project route.

There are numerous daycare and preschool facilities located within 0.25-miles of the proposed Project, see Section 5.15, Public Services, for a list of these facilities.

5.9.1.5. Airports and Airstrips

The Norman Y. Mineta San Jose International Airport (Airport) is located approximately 0.5 miles south-east of the southern end of the Project route and the Santa Clara Towers Heliport is located approximately 1 mile west of the route. A review of the Santa Clara County Comprehensive Land Use Plan (CLUP) for the Airport indicates that a large part of the Project route crosses through three Airport's Safety Zones, is beneath a mapped flight path, portions are within the 70 dB and 75 dB Aircraft Noise Contours, and the entire Project route appears to be within FAR Part 77 Surfaces (SCCALUC, 2024). Federal Aviation Regulations (FAR) Part 77, Objects Affecting Navigable Airspace, establishes imaginary surfaces for airports and runways (FAR Part 77 Surfaces) as a means to identify objects that are obstructions to air navigation. Each surface is defined as a slope ratio or at a certain altitude above the airport elevation. The Project route appears to be located within surfaces that range from 112 to 239 feet above Mean Sea Level (MSL) FAR Part 77 Surface zone of maximum structure height, with the lower FAR Part 77 Surfaces (altitudes of 162 to 112 feet MSL from north to south) along the Project route south of Montague Expressway (SCCALUC, 2024). The proposed Project tubular steel poles may range in height from 85 to 150 feet above ground surface. Ground elevations along the Project route range from 22 to 36 ft above MSL south of Montague Expressway and from approximately 15 to 22 feet above MSL north of Montague Expressway.

5.9.1.6. Wildfire Hazards

The California Department of Forestry and Fire Protection (CAL FIRE) identifies and maps areas of significant fire hazards based on fuels, terrain, and other relevant factors. The maps identify this information as a series of Fire Hazard Severity Zones, which are progressively ranked in severity as un-zoned, moderate, high, and very high. Wildland fire protection in California is the responsibility of either the State, local, or federal government. State Responsibility Areas (SRAs) includes those areas where the financial responsibility of preventing and suppressing fires falls primarily on the State. Local Responsibility Areas (LRAs)

include incorporated cities, unincorporated county areas, cultivated agriculture lands, and portions of the desert. LRA FHSZ are mapped as either Very High Fire Hazard Severity Zones (VHFHSZ), not mapped within VHFHSZ, or if they have been reclassified from an SRAs they are still mapped at moderate, high, and very high FHSZ. LRA fire protection is typically provided by city fire departments, fire protection districts, counties, and by CALFIRE under contract to local governments (OSFM, 2024). Federal Responsibility Areas (FRA) are those located on federal lands not otherwise included in SRAs and LRAs.

The proposed Project would be located within the City of Santa Clara in the County of Santa Clara. The Fire Hazard Severity Zones Map mapping website for LRAs and SRAs (OSFM, 2024b) indicates that the Project site is not in an SRA FHSZ or a LRA VHFHSZ. The proposed Project is located in a fully urbanized developed area with no wildlands at or near the Project site. The Project site is serviced by the Santa Clara Fire Department. For more information on wildfire hazards, see Section 5.20 Wildfire.

5.9.1.7. 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 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, excavated soil 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 having lead jurisdiction.

Federal

Toxic Substances Control Act, Resource Conservation and Recovery Act, and Hazardous and Solid Waste 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 (U.S. 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, 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 the Hazardous and Solid Waste Act.

Comprehensive Environmental Response, Compensation, and Liability Act. Congress enacted the federal CERCLA, including the Superfund program, 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. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.

Clean Water Act. The Clean Water Act (CWA) is the principal federal statute protecting navigable waters and adjoining shorelines from pollution. The law was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. Since its enactment, the CWA has formed the foundation for regulations detailing specific requirements for pollution prevention and response measures. The U.S. EPA implements provisions of the CWA through a variety of regulations, including the NCP, as described above, and the Oil Pollution and Prevention Regulations. Implementation of the CWA is the responsibility of each state.

National Pollutant Discharge Elimination System. The National Pollutant Discharge Elimination System (NPDES) permit program, created in 1972 by the CWA, helps address water pollution by regulating point sources that discharge pollutants to waters of the United States. The permit provides two levels of control: technology-based limits and water quality-based limits (if technology-based limits are not sufficient to provide protection of the water body). Under the CWA, U.S. EPA may authorize state, tribal, and territorial governments to administer the NPDES permit program, enabling them to perform many of the permitting, administrative, and enforcement aspects of the NPDES program. In states authorized to implement CWA programs, U.S. EPA retains oversight responsibilities. Within the State of California, the SWRCB issues both general permits and individual permits under the NPDES permit program.

Federal Aviation Administration, 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). 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 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" providing 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. The State of California has been granted authorization by the United States EPA to administer all Regulations under both RCRA and the State's Hazardous Waste Control laws. 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 CAL FIRE Strategic Plan 2024 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 identifies 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

Santa Clara Fire Department Community Risk Reduction Division. Senate Bill 1082 (Health and Safety Code Chapter 6.11) established the Unified Program (a unified hazardous waste and hazardous materials management regulatory program). The Unified Program is implemented at the local level by local government agencies certified by Cal EPA, which are known as Certified Unified Program Agencies (CUPAs). CUPA agencies implement all the Unified Program elements and serve as a local contact for area businesses. The CUPA for the Project area is the Santa Clara Fire Department Community Risk Reduction Division (CRRD). As CUPA for City of Santa Clara, the CRRD administers the following California programs:

- **Hazardous Waste Generator Program** – This program applies to businesses and facilities that generate hazardous waste in any quantity, consolidates hazardous waste generated at a remote site, or recycles more than 100 kilograms/month of excluded or exempted recyclable materials. The Santa Clara Fire Department Hazardous Materials Division maintains records and conducts inspections of hazardous waste generators within the City of Santa Clara. Businesses that generate hazardous waste are required to submit a "Hazardous Waste Generator Permit Application" when they move into the city or begin generating hazardous waste. (A properly filled out and submitted Hazardous Waste Materials Business Plan may be used in lieu of the Hazardous Waste Generator Permit Application.)
- **Onsite Hazardous Waste Treatment** – The Santa Clara Fire Department Hazardous Materials Division maintains records and conducts inspections of hazardous waste generators who treat wastes on-site in a Fixed Treatment Unit under Permit by Rule, Conditional Authorization, and Conditional Exemption. The Division currently does not inspect Transportable Treatment Units, full permit facilities, or standardized permit facilities.
- **Underground Storage Tank (UST)** – SCCRRD implements this program to prevent discharges and releases of hazardous substances from USTs. The Santa Clara Fire Department Hazardous Materials Division maintains records of and inspects underground storage tanks. All underground storage tanks are required to meet current state regulations. Permits are required for the installation or removal of underground storage tanks.

- **Aboveground Storage Tank SPCC Plan** – As the Certified Unified Program Agency (CUPA) for the City of Santa Clara, the Santa Clara Fire Department Hazardous Materials Division is authorized to implement the California Aboveground Petroleum Storage Act. The Santa Clara Fire Department Hazardous Materials Division inspects facilities that store petroleum products in aboveground tanks with a total petroleum storage quantity at or above 1,320 gallons for compliance with the Aboveground Petroleum Storage Act and referenced sections of the federal Spill Prevention, Control, and Countermeasure (SPCC) rule.
- **Hazardous Materials Business Plan (HMBP)** – Facilities that store any hazardous material at or above the State-defined thresholds, generally 55 gallons of a liquid, 200 cubic feet of a gas, and 500 pounds of a solid, are subject to a HMBP. The CRRD oversees the preparation and submittal of the HMBP. The HMBP must be kept on site in a readily accessible area. The company must also review the HMBP at least once every two years. Copies of the inventory statement, site map, and facility information included in the HMBP must be submitted to the Santa Clara Fire Department annually.
- **California Accidental Release Prevention Program** – Businesses that handle more than the State threshold quantity of a regulated substance must develop a Risk Management Plan (RMP); an RMP is a detailed engineering analysis of the potential accident factors present at a business and the mitigation measures that can be implemented to reduce this accident potential. The Santa Clara Fire Department Hazardous Materials Division implements the California Accidental Release Prevention Program (CalARP) within the City of Santa Clara. The program requires an assessment of the offsite hazard potential, and the implementation of a program to minimize the risk of release. Companies which are required to prepare a Risk Management Plan for the Environmental Protection Agency pursuant 40 Code of Federal Regulations (CFR), Part 68, are also required to submit a copy of their Risk Management Plan to the Santa Clara Fire Department Hazardous Materials Division.

Santa Clara County Department of Environmental Health (SCCEDEH), Hazardous Materials Compliance Division (HMCD). The SCCEDEH's HMCD administers the Site Mitigation Program which oversees the Local Oversight Program and the Site Cleanup Program. The Local Oversight Program (LOP) oversees the cleanup of sites contaminated by petroleum from UST releases throughout Santa Clara County. The Site Cleanup Program (SCP) oversees the cleanup of properties contaminated by hazardous materials not exclusively associated with petroleum USTs. California Health & Safety Code Sections 101480 through 101490 state that a responsible party for a contaminated site may request local agency oversight of site assessment and remediation activities. In addition, the HMCD administers the Hazardous Materials Storage Ordinance (County Ordinance No. NS-517.31) and the Toxic Gas Ordinance (County Ordinance No. NS-517.44).

County of Santa Clara Emergency Operations Plan. In January 2022, the County of Santa Clara adopted an Emergency Operations Plan (EOP) to address the planned response of the County of Santa Clara to emergency situations associated with natural disasters and technological incidents, as well as chemical, biological, radiological, nuclear and explosive emergencies. The EOP establishes the emergency organization, assign tasks, specifies policies and general procedures, and provides for coordination of planning efforts for emergency events such as earthquake, flooding, dam failure, and hazardous materials responses (OEM, 2022)

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.

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 of construction equipment and vehicles would be performed in designated areas. However, minor spills or releases of hazardous materials could occur due to upset or improper handling and/or storage practices during construction activities.

Therefore, implementation of mitigation measure MM H-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.

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

MM H-1 Hazardous Substance Control and Emergency Response. SVP shall implement its hazardous substance control and emergency response procedures as needed. These 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.

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 resulting from leaks or spills.
- 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, identify first aid locations and provide other tailboard safety information.

LESS THAN SIGNIFICANT – OPERATION AND MAINTENANCE. Other than substances associated with motor vehicles that would be used for inspections and maintenance, no hazardous materials are associated with maintenance and operation of the proposed 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 vehicle fluids associated with construction vehicles could occur during construction of the proposed Project as discussed in item (a) above. The minimal amounts of hazardous materials anticipated for use in the Project coupled with implementation of mitigation measure MM HM-1 requirements would reduce potential impacts by requiring the development and implementation of hazardous substance control and health and safety measures.

LESS THAN SIGNIFICANT – OPERATION AND MAINTENANCE. No hazardous materials are associated with maintenance and operation of the Project except motor vehicle fluids in inspection and maintenance vehicles. SVP would implement existing operation and maintenance policies to address hazardous materials use after the Project construction is complete.

(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?

LESS THAN SIGNIFICANT. Numerous daycare facilities (listed in section 5.15, Public Services), and two schools, the Kathryn Hughes Elementary School and the North Valley Baptist School, would be located within 0.25-mile of the proposed Project route. The proposed Project will not use, store, or transport any acutely hazardous materials and would only use limited quantities of typical construction related hazardous materials such as cleaning solvents, paints, adhesives, vehicle fuels, oil, hydraulic fluid, and other vehicle and equipment maintenance fluids. Refueling of construction equipment and vehicles will take place at a designated site. All hazardous materials would be stored, used, transported, and disposed of in accordance with federal, state, and local regulations. Therefore, impacts from project-related hazardous materials use during proposed Project construction would be less than significant.

No hazardous materials are associated with maintenance and operation of the Project except motor vehicle fluids in inspection and maintenance vehicles. SVP would implement existing operation and maintenance policies to address hazardous materials use after the Project construction is complete.

(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?

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED. The proposed Project alignment is not located on hazardous materials sites compiled pursuant to Government Code Section 65962.5, including the Cortese List. However, numerous hazardous material sites are located in the proposed Project vicinity, including

many case closed LUST sites, several SWRCB Cleanup Program sites, and DTSC EnviroStor State Response and Voluntary Cleanup sites. Existing and unknown contamination from these sites or other industrial sites in the area may have spread to the proposed Project route due to the shallow groundwater in the Project area. Groundwater in the project vicinity is shallow with water levels of approximately 5 to 13 feet below ground surface (SWRCB, 2024).

Ground disturbing activities for the proposed Project, including excavation/auguring for tubular steel poles and pole foundations, and trenching and excavation for underground installation of ducting and vaults for Option 2, would have the potential to encounter known or unidentified environmentally contaminated soil or groundwater. This would potentially result in exposing workers, the public, and the environment to hazardous materials. Contaminated soil or groundwater encountered during construction and considered to be hazardous by the State of California would be handled, stored, transported, and disposed of according to applicable federal, State, and local regulations, as described above under applicable Regulations.

Implementation of mitigation measure MM H-2 (Soil and Groundwater Management) would reduce impacts related to encountering known or unidentified soil or groundwater contamination and ensure that proposed Project construction would not result in adverse effects to workers, the public, or the environment through handling, storage, or disposal of contaminated soil or groundwater.

Mitigation Measure for Contaminated Soil and Groundwater

MM H-2 Soil and Groundwater Management. Prior to Project construction and ground disturbing activities, SVP shall implement an evaluation of potential soil and groundwater contamination at locations along the Project route where excavation, drilling, auguring, or other significant ground disturbance will occur to prevent mobilization of contaminants and exposure of workers and the public. The evaluation shall be completed at least 60 days prior to the start of Project construction. The evaluation of soil and groundwater shall include, but not be limited to, the following:

- If contaminants below regulatory screening levels are identified, SVP shall coordinate with SCCDEH regarding soil reuse guidelines;
- If contaminants exceeding applicable regulatory screening levels for construction workers and residential users published by the RWQCB, DTSC, or the Environmental Protection Agency (EPA) (except for arsenic which is naturally occurring in the area), are encountered during the Soil and Groundwater Characterization Study SVP shall obtain regulatory oversight from SCCDEH and shall prepare a Soil and Groundwater Management Plan (SGMP); and
- Soils found in concentrations above established thresholds (except for arsenic) shall be removed and disposed of according to California Hazardous Waste Regulations.

If a SGMP is needed, the SGMP shall be prepared to guide activities during excavation and other ground disturbing activities to ensure that identified contaminated soils or groundwater are handled, removed, and disposed of properly. The SGMP shall be prepared by a licensed qualified professional and submitted to SCCDEH at least 30 days prior to Project construction and shall include, but not be limited to, the following elements:

- Procedures and protocols for the safe handling, storage, stockpiling, and disposal of contaminated soils;
- Contaminated soil excavated from the site shall be hauled off-site and disposed of at a licensed hazardous materials disposal site;

- Protocols to manage and disposed of contaminated groundwater that may be encountered during trenching or subsurface excavation activities, and if dewatering is required; and
- Procedures and protocols to follow in the event soils or groundwater not previously identified as contaminated and suspected of being contaminated (on the basis of visual, olfactory, or other evidence) are identified during site grading or excavation activities or dewatering activities to allow for proper identification and characterization, and subsequent proper handling, removal, and disposal.

(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?

LESS THAN SIGNIFICANT. The Norman Y. Mineta San Jose International Airport (Airport) is located approximately 0.5 miles east of the southern end of the Project route and the Project site is: beneath a mapped flight path; located between the 70 dB and 75 dB Aircraft Noise Contours; located between the 162 and 262 feet above Mean Sea Level FAR Part 77 Surface zone of maximum structure height; and is within the Airport's Safety Zones (SCCALUC, 2016). The Project would not include on-site staff that would be at increased hazards due aviation hazards and generally the height and form of the proposed project structures would be similar to the existing 115 kV transmission structures located adjacent to roadways throughout the City. However, the heights of the construction equipment and of the tubular steel poles (ranging from 85 to 150 feet in height) may exceed FAR Part 77 Surface zone of maximum structure height altitudes along the southern portion of the Project route. Because of the heights of Project structures, SVP would submit a Notice of Proposed Construction or Alteration to the Federal Aviation Administration (FAA) at least 90 days prior to Project construction. As a result of this consultation, SVP will modify structures as directed by the FAA, which may result in modification of the height or location of the structures, or the addition of lighting and marker balls. Compliance with FAA Part 77 regulations would reduce impacts related to aviation hazards to less than significant.

(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-related temporary short-term lane closures or disruptions may be necessary during the proposed Project's construction period. 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 temporarily decrease traffic flow in the project area, particularly on Lafayette Street.

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 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, any temporary lane closures would be coordinated with local agencies as specified in Transportation and Traffic Mitigation Measure 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 mitigation measure 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 5.17.2 (Transportation) for complete text of the mitigation measure.]

(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 – CONSTRUCTION. The proposed Project is in an urban setting with no risk of wildland fire owing to the lack of extensive vegetation in the area. The Project route and surrounding areas are located in an LRA area and are not in mapped VHFHSZ as designated on CAL FIRE wildland fire hazard maps (OSFM, 2024).

LESS THAN SIGNIFICANT– OPERATION AND MAINTENANCE. Operation and maintenance activities would be incorporated into SVP's existing O&M schedule for the existing transmission lines. As with current operation and maintenance, SVP would comply with all current federal and State laws related to vegetation clearance and fire prevention.

5.10. Hydrology and Water Quality

HYDROLOGY AND WATER QUALITY		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
(a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☒	☐	☐
(b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
(c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i)	result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii)	substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii)	create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv)	impede or redirect flood flows?	☐	☐	☒	☐
(d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
(e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Significance criteria established by CEQA Guidelines, Appendix G.

5.10.1. Setting

5.10.1.1. Surface Waters and Drainage

Surface water drainage in the City of Santa Clara (City) is primarily to the Guadalupe River (east of the Project); San Tomas Aquino Creek, also sometimes mapped as the southern extension of Saratoga Creek; (west of the Project); Saratoga Creek (southwest of the Project), and Calabazas Creek (west of the Project) (City of Santa Clara, 2014). The proposed Project route is located approximately equidistantly between San Tomas Aquino Creek to the west and Guadalupe River to the east. The Project site drains to the San Tomas Aquino Creek within the San Jose International Airport-Frontal San Francisco Bay Estuaries Watershed.

Saratoga Creek (and San Tomas Aquino Creek) is listed as an impaired water body by the State Water Resource Control Board (SWRCB) 303 (d) list for diazinon (a pesticide) and trash; the diazinon TMDL listing is from 2007 and is being addressed by the USEPA approved San Francisco Bay Urban Creeks Diazinon TMDL and the trash is being addressed by implementing the trash control provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SWRCB, 2018).

All of the streams and rivers crossing the City 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, these regionally important streams have been substantially channelized and modified to reduce flood hazards. The City has a storm drainage system that consists of curb inlets that collect and channel surface water, such as rainwater, into a series of storm sewers beneath City's roadways. The stormwater is transported through the underground pipe to the 4 streams within the City. These streams then directly flow into the San Francisco Bay (City of Santa Clara, 2014).

5.10.1.2. Groundwater Resources

The Santa Clara Valley is primarily underlain by the Santa Clara Valley groundwater basin, which is divided into three subbasins: the San Mateo Plain, the Niles Cone, and the Santa Clara subbasins. The proposed Project is within the Santa Clara Subbasin (DWR, 2024). The Santa Clara Subbasin is approximately 240 square miles, covering the middle and southern end of the Santa Clara Basin. The water bearing formations of the Santa Clara subbasin include Plio-Pleistocene age Santa Clara Formation of and Pleistocene to Holocene younger alluvium (DWR, 2003). Water production well depths in the Santa Clara Valley average about 278 feet below the ground surface and yield an average of 425 gallons per minute (City of Santa Clara, 2014).

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. 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 one well, resulting in the City installing a manganese removal system for that well before putting it into production (City of Santa Clara, 2014). Water quality in the major producing aquifers in the subbasin is generally of a bicarbonate type, with sodium and calcium bicarbonate the principal cations. Although hard, is of good to excellent quality and suitable for most uses (DWR, 2003).

5.10.1.3. Flood Hazard Areas

On Federal Emergency Management Agency (FEMA) flood maps (FEMA, 2009), the Project site is primarily mapped as Zone X - Area with Reduced Flood Risk due to Levee, however, there are some portions of the proposed Project that intersect with areas mapped as Zone X – 0.2% Annual Chance Flood Hazard. The proposed Project would be adjacent to areas that are mapped as Zone AO with a depth of 1 foot, and AH with a base flood elevation of 23 to 32 feet. Special Flood Hazard Zone AO are areas that are river or stream flood hazard areas or areas with a 1% or greater chance of shallow flooding each year, usually in the form of a sheet flow, with an average depth ranging from 1 to 3 feet. Zone AH are areas with a 1% annual chance of shallow flooding usually in the form of a pond, with an average depth ranging from 1 to 3 feet (FEMA, 2009).

According to the City's General Plan from 2014, Figure 5.10-2, the proposed Project is wholly within the Lexington Dam inundation area and is partially within the Anderson Dam inundation area. Some portions of the proposed Project are immediately adjacent to a small Special Flood Hazard Area, as identified above as Zone AH, however the Project site is not vulnerable to sea level rise. The General Plan also states that the City has adopted the Flood Damage Prevention Code, 1987, ed., to address requirements for flood protection (City of Santa Clara 2014).

5.10.1.4. Water Supply

Potable water for the City 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.

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

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. Disturbance of soil during construction could result in soil erosion and lowered water quality through increased turbidity and sediment transport into the storm drain system. There are no watercourses or other water bodies within or adjacent to the Project. Drainage from the Project is directed to the municipal storm drain system which eventually flows into San Francisco Bay. The City participates in the regional program for the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP). Santa Clara is committed to improving water quality in the Bay and streams, reducing urban runoff pollution through the implementation of the City's Urban Runoff Management Plan (URMP). The City's URMP, along with other local Urban Runoff Management Plans, collectively constitute the regional plan that conforms to the federal requirements of the National Pollution Discharge Elimination System (City of Santa Clara, 2014).

During construction, there is also the potential for violations of water quality standards or waste discharge requirements to occur from accidental leaks, spills, or releases of hazardous or potentially hazardous materials. There also is a potential for violations if existing contamination is encountered during construction.

The proposed Project's transmission line is approximately 2.24 miles long. Work would also occur at the existing NRS, KRS, and Palm Substation. Laydown or staging areas would also be required for Project material and equipment. While Option 1 (overhead line) would create less ground disturbance than Option 2 (partial underground line) it is assumed that over 1 acre of disturbance would be required for construction of the line under either option, triggering the need for a SWPPP. Implementation of mitigation measure

MM HYD-1 is recommended to 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. In addition to mitigation measure 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 mitigation measure 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 mitigation measures HYD-1 and HM-1 and compliance with regulatory standards. With these mitigation measures, no violations would be expected from operation of the proposed Project.

Mitigation Measures 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 or disturbed 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, may be installed before the onset of winter rains or any anticipated storm events if soils are not stabilized. 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 H-1 Hazardous Substance Control and Emergency Response (see full text in Section 5.9, 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 to support dust suppression during ground disturbing work and for foundation slurry preparation 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, where groundwater makes up 70 percent of the City's water supply. The existing supply is adequate for use during 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 built entirely overhead under Option 1, with a possibility of a portion of transmission line being underground under Option 2. The overhead transmission line 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. The proposed Project is in an urban area, which has extensive impervious surfaces, 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 off-site?

LESS THAN SIGNIFICANT. As described under Item (c)(i) above, the Project area has extensive impervious surfaces except landscaping. The proposed Project would occur in and adjacent to paved areas and, if underground construction is required, the disturbed area would be restored. This would have a less than significant impact on drainage patterns or runoff generation. The site would drain to the existing stormwater drainage system, similar to existing condition. 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 would 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 would be less than significant.

iv. impede or redirect flood flows?

LESS THAN SIGNIFICANT. The majority of the proposed Project route is within FEMA Zone X Area with Reduced Flood Risk due to Levee. A small portion of the route intersects Zone X – 0.2% Annual Chance Flood Hazard. Additionally, the proposed Project is adjacent to a FEMA-designated Special Flood Hazard Areas (Zone AO,

and Zone AH). However, the proposed Project would be installing transmission line poles, which have a very small footprint compared to the width of the floodplain. The proposed Project 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 site is not subject to the effects of a tsunami and is not near a waterbody that would create seiche effects. The majority of the proposed Project route is within FEMA Zone X Area with Reduced Flood Risk due to Levee. A small portion of the route intersects Zone X – 0.2% Annual Chance Flood Hazard. However, the proposed overhead lines would be well above the level of flooding with no opportunity to release pollutants as a result of flooding. NRS, which are not in the floodplain, would require minor improvements to accommodate the new circuit. The Project 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's effect on water quality will be less than significant with mitigation. Although the nearby San Tomas Aquino/Saratoga Creek is listed as an impaired water body, there are no features of the Project that would adversely impact the diazinon or trash load of the creek. 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?	☐	☐	☒	☐
(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?	☐	☐	☐	☒

Significance criteria established by CEQA Guidelines, Appendix G.

5.11.1. Setting

The proposed Project would be in an urban, heavily developed area in the City of Santa Clara (City) within Santa Clara County, CA. The northern end of the proposed Project is at the North Receiving Station (NRS) located west of Lafayette Street and south of Bill Wash Way and immediately south of the Levi's Stadium complex. The southern end of the proposed Project is at Kifer Receiving Station (KRS) located northwest of the intersection of Lafayette Street and Central Expressway.

Various zoning designations apply to land along the Project alignment, including Heavy Industrial (MH), Light Industrial (ML), Medium Density Multiple Dwelling (R3-25D), Neighborhood Commercial (CN), Planned Development (PD), Single Family (R1-6L), and Planned Development – Master Community (PD-MC). The NRS and KRS sites are zoned as Public or Quasi Public (B) (City of Santa Clara 2023a).

"MH" designations permit primary manufacturing, refining and similar activities, warehousing and distribution, and data centers. "ML" designations permit a range of light industrial uses, including general service, warehousing, storage, distribution, and manufacturing.

"R3-25D" designations permit residential developments with 25 units per gross acre, with a variety of housing types such as low-rise apartments or townhouses. This designation is primarily intended for areas with access to collector streets or in close proximity to neighborhood centers. "CN" designations are intended for local-serving retail, personal service, and office uses that meet neighborhood needs, such as supermarkets, stores, medical facilities, restaurants, hair salons, and banks. "R1-6L" designations are designated for single family homes, or very low-density residential uses with detached dwelling units. "B" designations allow a variety of public and quasi-public uses, including government offices, fire and police facilities, transit stations, commercial adult care and childcare 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, 2014)

"PD" designations and "PD-MC" designations permit property with a minimum project size of 25 acres, or a master community, and are intended to allow modification of requirements established by other ordinances and diversification in the relationship of different uses, while ensuring compliance with the General Plan (City of Santa Clara 2023b).

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 applicable to the Project.

Local

City of Santa Clara General Plan. The City's land use policies consider the effects of development on 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-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-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-P11.** Allow new public/quasi-public uses under any General Plan Land Use classification, provided that the use is compatible with planned uses on neighboring properties, consistent with other applicable General Plan policies, and has primary access from a Collector or larger roadway. Such uses not associated with government operations are prohibited in areas designated as Light Industrial or Heavy Industrial, and in areas designated High or Low Intensity Office/Research and Development outside the Exception Area.
- **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.

5.11.2. Environmental Impacts and Mitigation Measures

(a) Would the project physically divide an established community?

LESS THAN SIGNIFICANT - CONSTRUCTION. The new 115 kV transmission pole structures would primarily follow the edge of roadways, or would be within the median of the road, which includes landscaped planter areas, the perimeters of parking lots, or in sidewalks, where many of the existing power lines in the project vicinity are located. There are residential communities to the east and west of the proposed Project alignment. However, these communities are already physically divided by a main arterial road, Lafayette Street, and the railroad line, which is parallel to the road. The railroad is fenced or walled along part of the alignment to restrict access. The proposed Project would be constructed along Lafayette Street and parallel to the railroad line and would not be a physical barrier.

During construction work areas for pole installation would typically be within or edge of the road ROW and/or within SVP easements. The work areas would extend approximately 50 feet along the alignment for each individual pole location. The width of the Project encroachment into the public ROW and/or SVPs easement during pole installation and construction stringing will depend on the location of the pole in relation to the curb and private property lines, among other factors.

Construction of both Option 1 (all overhead) and Option 2 (partial underground) would require periodic, temporary lane closures along various public and private roads within the project area to create a safe workspace. Under Option 2, construction would occur over 14 months. Option 2 includes underground construction, which would require a longer construction period for the overall Project and more extensive

and longer duration temporary lane closures. The temporary lane closures would be coordinated with local agencies and SVP would obtain encroachment permits to conduct work in public ROWs in accordance with applicable City requirements.

Given the relatively short construction period and SVP's coordination with local agencies, there would be a less-than-significant impact to the local established community during construction of the proposed Project.

NO IMPACT – OPERATIONS AND MAINTENANCE. During operations and maintenance, most of the proposed Project, except for the poles, would be overhead or underground, and would not divide an established community, therefore, there would be no impact.

(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 General Plan, as listed above in Section 5.11.1, Setting. As discussed in Sections 5.1, Aesthetics, and 5.13, 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?	☐	☐	☐	☒
(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?	☐	☐	☐	☒

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 (City of Santa Clara, 2014). A review of California Department of Conservation (CDOC) and U.S. Geological Survey (USGS) data indicate that the proposed Project is in an area identified as MRZ-1, which is an area where there are no known significant mineral resources, and no active mining operations are located in the immediate vicinity of the proposed Project (CDOC, 1996 and 2024a; USGS, 2024). The USGS Mineral Resources Data System identifies one past gravel producer just to the west of the proposed Project (USGS, 2024). The site is currently identified as the CEMEX Concrete Plant located south of Montague Expressway (Google Earth, 2024).

Regulatory Background

This section includes a description of the regulatory framework for mineral resources. 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 (CDOC, 2024b). 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?	☐	☐	☒	☐
(b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
(c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 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?	☐	☐	☐	☒

Significance criteria established by CEQA Guidelines, Appendix G.

5.13.1. Setting

Existing Conditions

Community Noise. A measurement scale (A-weighted scale) that simulates human perception is used to describe environmental noise and to assess a project's impacts on areas that are sensitive to community noise. 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 residential, commercial, and industrial. The major arteries, such as Central Expressway and U.S. 101 near the Project, cause traffic noise levels that exceed 75 dBA CNEL along the edges of the roads, and noise levels that exceed 70 dBA CNEL at the Project alignment (City of Santa Clara, 2014; General Plan Figure 5.10 4). The Project is also within a 65 dB CNEL airport noise contour (City of Santa Clara, 2014; General Plan Figure 5.10 5).

Noise Sensitive Areas. Within 0.5 miles of the Project are a diverse range of general plan designations, including areas with medium density residential, low density residential, and community-serving parks/open space. The only residences in the project vicinity are both east and west of Lafayette Street, primarily in the northern portion of the alignment, and just over 100 feet from the proposed transmission line route at their nearest. Project-related staging areas and work areas would be at least 100 feet from land uses containing sensitive receptors.

5.13.2. 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.

5.13.3. 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 14 -months of construction (for Option 1) that includes 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, 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. Noise would vary, as work would occur intermittently at various sites. The surrounding land uses are primarily residential and heavy and light industrial, as well as transportation (arterial and connector roads, railroad). The locations of the proposed transmission line would not be immediately 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, low density residential, and community-serving parks/open space. The closest residences in the project vicinity are east of Lafayette Street and approximately 100 feet from the proposed transmission line route. Most residences to the west are behind a high block wall. 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. This would be similar to vehicle and truck traffic already present in the area. Haul trucks would make trips to bring poles, conductor line, and other materials to the construction sites and remove excavated soil and debris. 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 residences in the project area are set back from the alignment and most construction 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 existing land uses and ambient noise levels and would pose no conflict with City 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, occasional maintenance of the 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 SVP's 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 115 kV transmission line. This impact would be less than significant.

(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 from construction equipment and activities might be perceptible to receptors in the immediate vicinity of 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

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.

immediate area around such activities (within about 25 feet). Pole locations and work sites, including the work within the existing substations, would be more than 25 feet from residences, so 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 Project would not produce any ground-borne 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 Levi Stadium and Lafayette Street and would cross Highway 101 and the Montague Expressway. The proposed Project would be unstaffed and would not create inhabited structures or workspaces. Therefore, 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)?	☐	☐	☒	☐
(b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Significance criteria established by CEQA Guidelines, Appendix G.

5.14.1. Setting

The northern approximately 0.74 mile of the proposed Project is adjacent to areas zoned for residential uses of varying densities. The remainder of the proposed Project is adjacent to areas zoned for offices, businesses, and industrial uses (City of Santa Clara 2023).

Overall, this area of the City of Santa Clara (City) 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 population housing, and employment for the City and the County 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	132,476	53,370	6.4%	70,400	3.3%
County Santa Clara	1,886,079	701,539	5.0%	1,002,600	3.5%

*Accounts for population greater than 16 years of age and in Labor Force.

Source: CA DOF, 2023; CA EDD, 2023

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, 2014b). The following policies from the City General Plan and the Housing Element of the General Plan, respectively, generally relate to the proposed project (City of Santa Clara, 2014a; City of Santa Clara, 2014b):

- **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 a substantially developed urban area. 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 14-month construction period (for Option 1), 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 115 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 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 115 kV transmission line would occur over approximately 14-months (for Option 1) and would not require the relocation of workers to the proposed Project area in the City. 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?	☐	☐	☒	☐
(b) Police protection?	☐	☐	☒	☐
(c) Schools?	☐	☐	☐	☒
(d) Parks?	☐	☐	☐	☒
(e) Other public facilities?	☐	☐	☐	☒

Significance criteria established by CEQA Guidelines, Appendix G.

5.15.1. Setting

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

5.15.1.1. Fire Protection

The Santa Clara Fire Department (SCFD) serves the City and provides fire protection and emergency services to the project site and the surrounding area (City of Santa Clara, 2014a). 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, 2014a). The nearest fire stations to the proposed Project route are Fire Station 8 at 2400 Agnew Road, about 0.6 miles west of Lafayette Street, Fire Station 6 at 888 Agnew Road, about 0.5 miles west of Lafayette Street, and Fire Station 2 at 1900 Walsh Avenue about 0.8 mile from Kifer Receiving Station (KRS), which is the southernmost part of the proposed Project route (City of Santa Clara, 2024c). The average response time is 3 minutes for all areas of the City (City of Santa Clara, 2014a).

5.15.1.2. Police Protection

The Santa Clara Police Department (SCPD) serves the City and provides police protection to the project site and the surrounding area (City of Santa Clara, 2014a). The police station at 3992 Rivermark Parkway is approximately 0.7 miles east of Lafayette Street. SCPD headquarters is located at 601 El Camino Real, about 1.7 miles from Kifer Receiving Station, which is the southernmost part of the proposed Project route. SCPD has 232 full-time employees, including 153 sworn officers and 79 civilians. The average response time from dispatch to first officer arrival is 2 minutes and 35 seconds (City of Santa Clara, 2024d).

5.15.1.3. Schools and Daycare

Six school districts serve the City: 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 (City of Santa Clara, 2014a). Numerous daycare facilities operate in the

City, often in private homes. Educational institutions and known daycare facilities within 0.25-miles of the proposed Project include:

- Kathryn Hughes Elementary School, 4949 Calle De Escuela
- North Valley Baptist Schools; 941 Clyde Ave
- Montague District Preschool, 750 Laurie Ave
- Anna's Daycare, 4639 Snead Dr
- Care A Lot Family Daycare, 2056 Fairway Glen Dr
- Marvelous Kids Daycare, 4646 Armour Dr
- Hackett Daycare, 4493 Cheeney St
- Patty's Loving Care, 2347 Remo Ct
- iGurukul Learning Center, 2067 Agnew Rd
- Little Dolphin Family Daycare, 2376 Silveria Ct
- Matangi Family Daycare, 901 Clyde Ave
- Santa Clara Joy Family Day Care, 849 Leith Ave
- Agape Playskool, 3700 Thomas Rd
- Little Glitters Daycare, 1038 Leith Ave
- Kool School Daycare, 983 Laurie Ave
- Martinson Child Development, 1350 Hope Dr
- Hughes Preschool, 4949 Calle De Escuela
- Mater Ecclesiae Academy, 968 Leith Ave

5.15.1.4. Parks

There are 40 parks in the City (City of Santa Clara 2024a). The parks nearest to the proposed Project are Lick Mill Park, a small part of which fronts on Lafayette Street near the Northern Receiving Station, and the Agnews Historic Park, located directly adjacent to the proposed Project at 4030 Lafayette Street (City of Santa Clara, 2024b). See Section 5.16, Recreation for a list of parks in the vicinity of the proposed Project.

5.15.1.5. Hospitals

The hospitals closest to the proposed Project are:

- O'Connor Hospital, 2105 Forest Avenue, San Jose, 3.4 miles south of KRS
- Valley Health Center Sunnyvale, 660 S Fair Oaks Avenue, Sunnyvale, 4 miles west of KRS
- Kaiser Permanente Santa Clara Medical Center, 700 Lawrence Expressway, 3.8 miles southwest of KRS

The City's 2010-2035 General Plan Integrated Final EIR identified seven roads as key routes in the City for emergency vehicles. Out of the seven routes only one, Montague Expressway, would be crossed by the proposed Project (City of Santa Clara 2011).

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.

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 construction of the new 115 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. Only one emergency access route, Montague Expressway, would be crossed by the proposed Project. No construction-related activities would be located on streets identified as major emergency access routes. Therefore, the proposed Project is not 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. Only one emergency access route, Montague Expressway, would be crossed by the proposed Project. No construction-related activities would be located on streets identified as major emergency access routes. Therefore, the proposed Project is not 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 115 kV transmission line would occur over approximately 14 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 proposed 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 115 kV transmission line would take place over 14 months (for Option 1) 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?	☐	☐	☐	☒
(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?	☐	☐	☐	☒

Significance criteria established by CEQA Guidelines, Appendix G.

5.16.1. Setting

There are 40 parks in the City of Santa Clara (City of Santa Clara, 2024a). In general, each 1-square mile of residential area in the City 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 two parks nearest to the proposed Project are Lick Mill Park, a small part of which fronts on Lafayette Street near the Northern Receiving Station, and the Agnews Historic Park, located at 4030 Lafayette Street (City of Santa Clara, 2024a). The portion of Lick Mill Park at Lafayette Street is a 75-foot-wide greenway that extends east 0.3 miles along Fairway Glen Drive to the main park facilities. The Agnews Historic Park is 14.5 acres and is located on a Historic Easement on the Oracle Santa Clara campus property, which was the site of the former Agnews State Hospital. The park includes four historic buildings which are preserved as part of the historic easement (City of Santa Clara, 2024b).

There are several parks within 0.5 miles of the proposed Project, including: Agnew Park (approximately 0.22 mile west); Fuller Street Park (approximately 0.2 mile west); Santa Clara Youth Soccer Park (approximately 0.2 mile northwest); Fairway Glen Park (approximately 0.18 mile northeast); Lick Mill Park (approximately 0.3 mile east); and Montague Park (approximately 0.38 mile east). The Ulistac Natural Area is located approximately 0.5 mile east of the proposed Project and consists of 40 acres of open space with no facilities. All these parks, except the greenway strip from Lick Mill Park and Agnews Historic Park, fronting on Lafayette Street, are separated from the proposed Project development. Other recreational facilities in the City include sports fields, a skate park, swimming pools/centers, senior center and youth center (City of Santa Clara, 2024a), 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.

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 areas or commercial facilities that would increase population and, therefore, would not increase the demand for parks in the Project area. Construction of the new 115 kV transmission line would take place over approximately 14 months (for Option 1) and would require only a small workforce 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		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
(a)	Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☒	☐	☐
(b)	Conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?	☐	☐	☒	☐
(c)	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☒	☐	☐
(d)	Result in inadequate emergency access?	☐	☒	☐	☐

Significance criteria established by CEQA Guidelines, Appendix G.

5.17.1. Setting

The proposed Project would use local roadways for accessing work areas during construction. Roadways along the proposed Project route may be temporarily disrupted during installation of the new 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.

5.17.1.1. 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 an 8-lane divided (4 lanes per direction) south-north highway that travels the length of the West Coast. The San Tomas Expressway exit or the De La Cruz Boulevard/Trimble Road exit from U.S. 101 would likely be used to access the 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, 2020). Year 2016 ADT volumes represent the most recently published data.
- **State Route (SR) 237**, or Southbay Freeway, is a 6-lane- divided west-east highway that connects Interstate (I)-880 and I680 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 Project area. At this exit, year 2016 ADT volumes on SR 237 were 124,000 vehicles per day (Caltrans, 2020).
- **Interstate 280**, or Junipero Serra Freeway, is a 10-lane south-north regional highway that connects I880 and SR1 and extends through the City. The exit at the junction of I280 with SR 17 and I880 would likely be the used to access the Project area. At this exit, year 2016 ADT volumes on I280 were 205,000 vehicles per day (Caltrans, 2020).

5.17.1.2. Local Roads

CEQA now analyzes project impacts in terms of vehicle miles traveled (VMT) to better understand such parameters as air quality impacts, fuel consumption, and commute times. The VMT approach is reasonable for projects that will generate traffic to and from the project site over time, such as offices, apartments, factories, and shopping centers. However, for projects that have a temporary traffic impact related to construction, after which traffic generation is minimal or non-existent, the primary concern is with the

project's impact on congestion during construction. To understand congestion and traffic delays, 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). The analysis in this section considers LOS impacts.

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 alignment. 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
Montague Expressway (between De La Cruz Boulevard and Lafayette Street)	8	60,570	D
Montague Expressway (between Lafayette Street and Mission College Boulevard)	8	58,070	D
Central Expressway (Lafayette Street and De La Cruz Boulevard)	8	59,700	D
Central Expressway (between Scott Boulevard and Lafayette Street)	8	47,550	D
Agnew Road (between Lafayette Street and Montague Expressway)	4	14,820	D
Lafayette Street (between Tasman Drive and Montague Expressway)	4	18,370	D
Lafayette Street (between Montague Expressway and US 101)	4	11,600	C
Lafayette Street (between US 101 and Central Expressway)	4	18,190	D

LOS = level of service

Source: City of Santa Clara, 2011.

Roadways Disrupted by Project Construction

Construction of the proposed Project could result in a temporary disruption to local roadways during delivery of large equipment or materials and during installation of poles and conductors along the transmission line alignment on Lafayette Street. The main roads that may require temporary lane closures and/or escort vehicles to facilitate material and equipment deliveries include Lafayette Street, Agnew Road, Montague Expressway, and Central Expressway, a combination of which could be used to access the smaller local roads which may be used to access the transmission route and the substations.

5.17.1.3. 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 route 20 crosses the proposed Project at Agnew Street (VTA, 2021). Route 10 travels along Agnew Street in the central part of the proposed transmission line route (VTA, 2021).

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 Center, approximately 2 miles south of Kifer Receiving Station. The Capitol Corridor

commuter rail line, operated by the Capitol Corridor Joint Powers Authority (CCJPA), stops at the Great America Station approximately 0.4 miles northwest of the Northern Receiving Station and provides transit services between Sacramento and San Jose. Planned transit developments in the City include a possible extension of Bay Area Rapid Transit (BART) to the Santa Clara Transit Center, High Speed Rail along the Caltrain corridor, and the Agnew Siding Project along the Capital Corridor. (City of Santa Clara, 2011 and 2014)

5.17.1.4. Rail (Freight)

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. 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)

5.17.1.5. Bicycle

Existing bicycle facilities are part of City Bicycle and Trail Network, providing 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 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 (City of Santa Clara, 2013).

5.17.1.6. Air Transportation

The Norman Y. Mineta San Jose International Airport (Airport) is southeast of the Kifer Receiving Station in San Jose, adjacent to the City.

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 – 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 would vary depending on the location, but in general, is approximately 50 feet. SVP would obtain 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 along sidewalks. From NRS to Palm Substation at Agnew Road, the new transmission line would be either underground or on poles in the median of Lafayette Street. South of Palm Substation, the lines would be overhead on poles along the east side of Lafayette Street to Montague Expressway, where the line would cross to the west side of Bassett Street. The lines would be mainly located at the west edge of the roadway and continue to Kifer Receiving Station (See Figure 4-1) and be installed in the same general locations as the existing power lines.

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 T1 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, SVP or its designee shall prepare and submit an Encroachment Permit which will include the construction Traffic Control Plan for review and approval to the City's Department of Public Works 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 to the 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.
- Plans to coordinate with Valley Transportation Authority in advance of construction to minimize disruption to mass transit.

(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. Prior to July 1, 2020, use of the provisions of section 15064.3(b) was at the discretion of the CEQA lead agency but are now mandatory statewide. 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 14 months (for Option 1) 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 short-term 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 – 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 truck traffic 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 T1 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 T1, 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 115 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 – CONSTRUCTION. Construction of the proposed Project would cause a minor short-term increase in the local traffic and congestion 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 §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 §5020.1(k), or	☐	☒	☐	☐
ii) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code §5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Significance criteria established by CEQA Guidelines, Appendix G.

5.18.1. Setting

Tribal Cultural Resources (TCRs) are defined under Assembly Bill 52 (AB 52) as 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.

5.18.1.1. Record 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.

5.18.1.2. Ethnographic Setting

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 end of the San Francisco Peninsula south to Big Sur 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 Before Present (BP) and replaced the original Hokan speaking population of the Bay Area. This appears to coincide with the appearance of Late Horizon artifact assemblages. Using Spanish mission records and archaeological data, researchers 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 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 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 to 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. 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 (City of 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 reparations due them for the loss of traditional lands. The Ohlone/Costanoan Muwekma Tribe, consisting of surviving Native American lineages who trace their ancestry through Missions Dolores, Santa Clara and San José. 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.

5.18.1.3. Regulatory Setting

State

California Environmental Quality Act. CEQA requires that impacts to TCRs be identified and, if impacts would 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); 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 a project may cause a substantial adverse change in the significance of a tribal cultural resource (PRC §21084.2) or the resource is listed, or eligible for listing, in the CRHR or in a local register of historical resources, and it is demolished (CEQA Guidelines §15064.5(b)(2)).

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.

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).

5.18.1.4. Assembly Bill 52 Tribal Consultation

The proposed Project’s effects on potentially buried and therefore presently unidentified TCRs were 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 “Technical Advisory: AB 52 and Tribal Cultural Resources in CEQA” (OPR, 2017).

Representatives of the Tamien Nation had previously requested to be contacted regarding projects within the City of Santa Clara. Two representatives of the Tamien Nation requesting to be contacted under AB 52 for possible tribal consultation were notified of the proposed Project and invited to engage in consultation. The invitation was extended to each representative by registered mail (April 11, 2024). No responses were received to the emails or letters during the 30-day response period. This concluded AB 52 compliance under CEQA.

5.18.1.5. NAHC Sacred Lands File Search

Aspen requested a search of the NAHC’s Sacred Lands file to determine the presence or likelihood of encountering TCRs within the Project area. On March 27, 2024, the NAHC responded that the search was completed with negative results (i.e., no sacred sites are located within the Project area or surrounding vicinity).

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. There are no TCRs listed in, or are known to be eligible for listing in, the CRHR or local register of historical resources within the proposed Project area. Although there is no evidence that TCRs exist within the proposed Project site or immediate vicinity, 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 project-related ground disturbance, as both Project options involve ground disturbance. This would constitute a significant impact absent mitigation. Implementation of mitigation measure MM TCR-1 would evaluate and protect unanticipated TCR discoveries, thereby reducing this impact to a less than significant level after mitigation.

MM TCR-1 Management of Unanticipated Tribal Cultural Resources. During project 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, , 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. No known TCRs were identified during a search of the NAHC's Sacred Lands File, record search, or during ethnographic research. 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, as both Project options involve ground disturbance. Such a discovery or inadvertent damage/destruction to a previously unknown TCR would constitute a significant impact absent mitigation. Implementation of mitigation measure MM 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.

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?	☐	☐	☒	☐
(b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
(c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
(d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
(e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

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 5.19-1 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

5.19.1.1. Utilities

Water Supply

Potable water for the City of Santa Clara (City) 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 as a municipal electric utility and as a department of the City. SVP maintains approximately 383 miles of underground distribution lines, nearly 200 miles of overhead distribution lines and over 60 miles of transmission lines. Electricity for the City is provided from natural gas, wind, solar, geothermal, and hydroelectric generation resources in California and other western states (Silicon Valley Power, 2023).

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).

5.19.1.2. Service Systems

Sewage/Wastewater

Sewer systems collect wastewater in the City and transport it via pipelines to the San Jose–Santa Clara Regional Wastewater Facility (RWF) in San Jose, CA. The RWF treats approximately 110 million gallons per day (mgd) of wastewater from cities in Santa Clara County and is able to treat up to 167 mgd. (City of San Jose, 2024).

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. Treated wastewater that is not directed into the recycled water pipelines is discharged into San Francisco Bay (City of Santa Clara, 2014).

Solid Waste Disposal

Solid waste and recycling collection services in the City is primarily provided by four companies: Mission Trail Waste Systems, Allied Waste, Green Waste Recovery, and Los Gatos Garbage Company. Newby Island Sanitary Landfill is the main landfill that serves the City, although 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, approximately 5.5 miles north of the proposed Project. Guadalupe Sanitary Landfill is located in San Jose, and Corinda Los Trancos Landfill is located in Half Moon Bay, approximately 12 miles south and 27 miles northwest from the proposed Project, respectively.

Table 5.19-2 lists the capacities of landfills in or near the City of Santa Clara.

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	16,400,000	28.5	4,000
Guadalupe Sanitary Landfill (Cease operation estimated 2043)	28,238,855	7,518,220	26.6	3,650
Corinda Los Trancos Landfill (Cease operation estimated 2034)	60,500,000	22,180,000	36.7	3,598

Sources: CalRecycle, 2024a; CalRecycle, 2024b; CalRecycle, 2024c

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 to 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 a 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 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 SVP 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 to 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-P10.** Work with Santa Clara Valley Water District to minimize undesirable compaction of aquifers and subsidence of soils.

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. Under Option 1, the entire proposed Project would be built Overhead. Under Option 2, the northern 0.74 miles of the proposed Project would be placed underground. For both Options, the proposed Project would involve construction of a new 115 kV transmission line that will be built to 230 kV standards, and underbuilding existing transmission/distribution lines on the new transmission structures for the southern segment of the Project.

Water, Wastewater Treatment or Storm Water Facilities. Construction of the proposed Project would generate minimal demand for water or wastewater treatment. A water truck or hose 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 from this use.

Concrete would be required for pole foundations and any vaults and underground conduits for lines underground. Excess concrete from construction as well as removed concrete foundations of poles no longer needed would be disposed of at an approved site away from the work area. Dewatering may be necessary if groundwater is encountered. Portable toilets would be provided for construction work crews and would be removed after construction is completed. 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. There would be no sanitary sewer hookup as part of the Project. Existing wastewater and water treatment facilities are adequate to accommodate the demand generated by the proposed Project during construction. 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. No new natural gas or telecommunications facilities would be required in support of the Project. 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.

Option 1 would not require the expansion or development of new utility systems. However, it would require minor modifications to some existing electric power and distribution lines and substations. Portions of the 115 kV line would have existing 60 kV circuits underbuilt on the new transmission line. Construction for Option 1 would include minimal utility relocation work at three locations. During routine operation and maintenance of the proposed Project, SVP's new transmission line would be unstaffed and would not create any need for new or expanded utilities or service systems.

Option 2 would require underground construction and would need to cross existing utilities owned by PG&E, SVP, and the City, numerous times. These utilities range from communication, electric, natural gas, and water lines, as well as sanitary sewers and a storm drain. Due to these conflicts, the transmission line would need to be buried approximately 20 feet deep in some areas.

There are 25 existing underground utilities in the corridor where the line would be underground. These include gas, sewer, storm, water, and electric lines. Option 2 would require the relocation of approximately 300 feet of two existing transmission natural gas lines, owned by SVP and PG&E, to facilitate the installation of two underground vaults for the Project. The SVP-owned transmission natural gas line is a high-pressure gas line for the Donald Von Raesfeld Power Plant (DVR). The relocation of this line would require a full shutdown of DVR and would need to be coordinated to occur during off-peak times of the year, November through March. It is unknown when the PG&E transmission natural gas line could be relocated. SVP would coordinate with PG&E to schedule the relocation work.

During routine operation and maintenance of the proposed Project, under either option, SVP's new transmission line would be unstaffed and would not create any need for new or expanded utilities or service systems. While the relocation of some utilities would create impacts, these would be similar to routine installation of utilities and be of limited extent. Any relocation work would be required to comply with applicable ordinances, standards, and best practice requirements. Therefore, impacts would be less than significant.

(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. Water would be used for the proposed Project primarily for the concrete pier foundations for the tubular steel poles. For an approximate foundation size of 8 feet in diameter and 35 feet deep, about 1,785 cubic feet of water would be required at each foundation. For Option 1, it is estimated that there would be approximately 40 poles. Option 2 would require approximately 32 poles but would

also require concrete for underground duct banks and vaults. This water demand would be a one-time need.

Water may also be used for dust suppression, if necessary, during the 14-month construction timeframe (for Option 1 only), although this would be a limited need. 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 or hydrants 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 drilling 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 Project would be transported to staging areas for temporary storage or directly to a facility for recycling or disposal. Existing wood poles removed as part of the Project would be moved 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 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 would not be staffed 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 recycling materials where feasible. As identified in Table 5.19-2, Landfill Capacities, the landfills serving the site would have sufficient capacity to accommodate Project construction solid waste disposal needs, and Project solid waste disposal would not result in 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?	☐	☒	☐	☐
(b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
(c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
(d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

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 (City) area is not located in a FHSZ in the CAL FIRE wildland fire hazard maps, primarily 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 transmission 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 removing 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 GO 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, 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.

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 City of Santa Clara does not have an adopted emergency response plan or an emergency evacuation plan. The Project does not cross over or is not near any roads in a very high FHSZ nor would it require complete road closures. As stated in Section 5.17, Transportation, the Project may require brief temporary lane closures/disruptions, however, at least one lane of travel through each construction area would remain open throughout the construction period to accommodate roadway users (including emergency vehicles). During temporary land closures, SVP would implement traffic control protocols and a project-specific traffic plan under Mitigation Measure T-1 (Construction Traffic Control Plan) to accommodate traffic flow. There is no other aspect of the Proposed Project, aside from traffic flow, that could impair an emergency response effort. Therefore, 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 of short duration throughout the project area. While temporary lane closures are not anticipated, maintenance

vehicles or equipment may be temporarily present alongside the roadways depending on structure locations and maintenance activities. However, at least one lane of travel would remain open at all times and any closure or disruption would be of limited duration (likely less than one day).

Option 1 would have a shorter duration of maintenance compared to Option 2, because overhead lines are easier to access. Additionally, Option 1 would have a shorter downtime in the event of a power outage or emergency, due to the visibility and accessibility of the line. However, the maintenance for both options would be of short duration and would be temporary. 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]

(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 and the City area is not located in a FHSZ as shown on CAL FIRE wildland fire hazard maps (CAL FIRE, 2007). However, there are residences in the Project vicinity located on Lafayette Street near 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 a fire ignition source. Examples of ignition sources include improperly discarded smoking materials or sparks from welding or from metal striking metal or stone, igniting surrounding vegetation or other flammable materials. To reduce fire risk, SVP would implement standard fire prevention protocols. In addition, the proposed Project is located in a flat, urban environment without extensive easily ignited vegetation, and construction activities would occur over a limited duration (14 months for Option 1). 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 or tower. 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 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 its 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, reducing 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 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 transmission lines would be within a wildfire risk area.

Operation and maintenance activities would be incorporated into SVP's existing O&M schedule for its 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 create occupied structures and thus could not expose residents to increased fire risk. The proposed Project is situated in an urban area with flat topography and low fuel load. During construction, there would be ground disturbance at the pole structure locations and, if sections of the line are buried, along the trench. The proposed Project would use up to two staging areas, each approximately one acre, in areas that are already disturbed. 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 slope instability, or drainage changes would be less than significant.

5.21. Corona and Induced Current Effects

5.21.1. Environmental Setting

5.21.1.1. 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.

5.21.1.2. 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 115 kV transmission line, relocation of existing distribution power lines and/or telecommunication lines along some segments of the new 115 kV transmission line, and minor modifications at two existing substations affected by the Project. The audible corona noise level caused by the 115 kV power line was not quantified. However, circuits operating at 115 kV typically cause noise at levels comparable to the ambient baseline noise levels in the vicinity of the line. Although the Proposed Project would be constructed to accommodate a 230 kV line, it would be operated at 115 kV. If, in the future, the line was to be upgraded to 230 kV, corona may become a concern. The applicant has proposed to install corona rings on all insulators to prevent future corona impacts. Therefore, 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?	☐	☒	☐	☐
(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, the effects of other current projects, and the effects of probable future projects.)	☐	☒	☐	☐
(c) Does the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

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. The proposed Project would be in a highly urbanized area of the City of Santa Clara (City). Project components would be within existing substations in existing roads, or within or adjacent to the public right-of-way. Little vegetation would be affected. Some trees may be removed to accommodate poles and conductors, and other trees would be trimmed. Adjacent properties along the Project include maintained landscaping consisting of trees, shrubs, and grass. 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 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 vicinity for foraging, although the habitat is marginal and the potential for occurrence of these species is very low. Implementation of mitigation measures MM BIO-1 through MM BIO-5 would reduce these potential impacts to less than significant levels.

Similarly, Section 5.5 (Cultural Resources) and Section 5.18 (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 5.18 (Tribal Cultural Resources), the proposed Project could have an adverse effect on previously undiscovered cultural or tribal cultural resources. With implementation of mitigation measures MM CR1, MM CR-2, and MM TCR-1 for unanticipated discoveries of archaeological and historical resources or human remains- and mitigation measures MM G-2 for paleontological resources, impacts 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. 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. The proposed Project is planned for construction from November 2026 through March 2028. Once constructed, the Project would have little to no environmental impacts except for maintenance.

Two projects identified from the Planning Department’s current project list are within 0.25 miles of the proposed Project. The projects are in the application stage and were reviewed to identify whether the NRS-KRS project could contribute to cumulatively significant impacts when evaluated in combination with these projects. The projects are:

- 4220 Network Circle – Involving demolition of existing structures and redevelopment of a 38-acre site near Lafayette Street and Montague Expressway with 584 housing units, open space, and parking. Status as of May 2024: Pending Review.
- 960 Central Expressway – Involving demolition of existing warehousing and loading docks and construction of three buildings for warehousing and/or datacenter uses. Status as of May 2024: Pending Review.

As discussed in Sections 5.1 through 5.21 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. The cumulative temporary and localized impacts of the construction of the proposed Project are considered by issue area below. The potential construction period for the two identified projects is unknown, as they have not yet undergone review and approval. Also, actual construction initiation and duration often varies from what is initially anticipated as a result of unforeseen circumstances including market conditions and availability of financing among others. In the future, applications may be submitted for other unknown projects in the vicinity of the Project and may overlap with the Project construction period. Because the area is built out, any projects would be reconstruction or construction of replacement land uses on already occupied sites. Given the built-out nature of the Project vicinity and the capacity of existing thoroughfares, there would be no post-construction impacts from the proposed Project that would have the potential to combine with impacts from the projects listed.

The 4220 Network Circle application was filed in March 2024. To date, no hearings have been scheduled and CEQA review has not begun. If construction of the Network Circle proposed project were to coincide with that of the proposed NRS-KRS Project, both projects would use 4-lane Lafayette Street and 6-lane Montague Expressway for access to work areas. The Network Circle project site is close to Montague Expressway and construction related traffic using the Expressway to Lafayette Street would be on Lafayette Street for 500 feet from the west bound Expressway exit and 1,000 feet from the east bound exit. Thereafter, traffic would be within the project site on the former Agnew State Hospital property. Construction traffic could also access the work site using Lafayette Street from the north. Construction of the NRS-KRS transmission line Project would be on Lafayette Street in the vicinity of the Network Circle project, and would be relatively short term – requiring installation of pole foundations approximately 350 feet apart, installation of tubular steel transmission poles, and stringing of conductor.

For the 960 Central Expressway project, the Notice of Preparation of an EIR and of a scoping meeting was published in December 2021. To date, the EIR has not been prepared. The Central Expressway proposed

project is proposed at the southwest corner of the intersection of Central Expressway and Lafayette Street, south of KRS. It is expected that construction related traffic for the Central Expressway project would be primarily on Central Expressway with some traffic on Lafayette Street. The NRS-KRS Project would enter KRS north of the Expressway with most of the Project south of Highway 101 within SVP property. It is unknown if the projects would overlap during construction.

Aesthetics. Potential views of the proposed Project are limited by the existing structures, walls, and vegetation along the alignment. NRS and KRS are behind screening walls and set back from nearby roads. These facilities are already visual elements of the local urban setting and viewscape, and the continued urbanization of the area is the likely trend for the foreseeable future with little change in its overall visual character. The impacts from the construction of the Project would be minimal because the work would be temporary in nature. The proposed Project represents only a relatively minor incremental change in cumulative conditions given the urban nature of the location and the presence of existing features similar to the proposed Project. 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 or any of the cumulative project sites. The Project would not contribute to cumulative impacts to agriculture and forestry resources.

Air Quality. Air emissions would occur during construction of the proposed Project. Emissions 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 ambient air quality standards. Foundation excavation and other construction-related activities could potentially expose sensitive receptors to construction-related emissions, including emissions of fugitive dust and DPM, which could 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 MM 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 near busy roadways. The proposed Project area contains no habitat for special-status plant species and limited habitat suitable for most special-status wildlife species unless they are adapted to urban environments. However, if present within or adjacent to the proposed Project area, the proposed Project could result in direct or indirect impacts to special-status wildlife species. These impacts would be avoided or minimized with the implementation of Mitigation Measures (MMs) BIO-1 through BIO-5.

As described in Section 4 Project Description and in Appendix D, some vegetation and tree removal or tree trimming may be required for pole installation and vehicle access and to minimize the risk of fire by providing clearance between conductors and trees. Implementation of MM BIO-6 will ensure the proposed Project complies with the local policies and ordinances by following the tree protection requirements and recommendations of the City arborist.

The Project would not represent a significant contribution to cumulative impacts. Given the built-up nature of the City, other cumulative projects in the vicinity have limited biological resources. Impacts to biological resources during operation and maintenance of the NRS-KRS Project would be less than significant, 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 MM CR-1 (Worker Training and Management of Unanticipated Discoveries of Historical Resources, Unique Archaeological Resources) and MM CR-2 (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.

Energy. Construction activities would consume nonrenewable energy resources to power construction equipment and vehicles. The short-term use of fuels by equipment and motor vehicle trips during construction would be necessary to install the transmission line. The energy used by the Project during construction and operation would not be wasteful, inefficient, or unnecessary considering the new facilities that would increase system reliability and power deliverability. The proposed Project would not conflict with any state or local plan for prioritizing renewable energy or energy efficiency, and there would be no considerable contribution to a cumulative impact associated with energy.

Geology and Soils. As discussed in Section 5.7, 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. Projects in the vicinity of the NRS-KRS 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. All construction would be required to comply with building code standards that take into account effects of seismic events. For the proposed Project, implementation of mitigation measure MM G-1 (Conduct Geotechnical Investigations), which would ensure that Project design would reduce the potential for geologic and seismic hazards, such as liquefaction and expansive soils. 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 the identified cumulative projects, ensure that their cumulative impacts to geology and soils would also be less than significant.

There is a limited potential for paleontological resources to occur on the site. Mitigation measure MM G-2 (Work Training and Management of Unanticipated Discoveries of Paleontological Resources) would ensure any potential impacts are less than significant and would not contribute to a cumulatively considerable impact.

Greenhouse Gas Emissions. Because the direct environmental effect of GHG emissions is to influence global climate change, GHG emissions are by their nature inherently a cumulative concern with a cumulatively global scope. Project-specific GHG emissions would occur from the burning of fuels required by construction equipment and vehicles 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 14 months (for Option 1). These estimated levels would not exceed the threshold level of 25,000 metric tons per year for annual mandatory reporting of GHGs.

GHG emissions from operation and maintenance would be minimal, as the transmission line would require only infrequent maintenance. The minor quantity of GHG emissions created during construction and for operation and maintenance would not be a cumulatively considerable impact.

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. Minor spills or releases of hazardous materials could occur due to upset or improper handling and/or storage practices during construction activities. Impacts from routine use, transportation, disposal, and accidental spillage of hazardous materials would be reduced to a less than significant level with implementation of mitigation measure MM HM-1 (Hazardous Substance Control and Emergency Response) discussed in Section 5.9, Hazards and Hazardous Materials; no contribution to cumulative impacts would occur.

Hydrology and Water Quality. The Project would not change existing drainage patterns along the route, which is covered primarily with impervious surfaces. The proposed Project would require minimal water for dust control and concrete during construction. Dewatering during foundation excavation for poles 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 Mitigation measures 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 accidental 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 would be consistent with the policies of the City General Plan. In addition, the proposed Project, as well as the cumulative projects, 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 site or vicinity. 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 area. Noise from construction activities would be audible to nearby residents and businesses, but construction would be limited to daytime hours and would be short-term. The nearest sensitive receptors, residents, are located just over 100 feet from the proposed transmission line route at their nearest. It is assumed that the cumulative projects would also be constructed during daytime. There would be a limited potential for the projects to have overlapping construction schedules for an extended duration that could result in substantial levels of combined construction noise. These projects are not likely to combine with noise generated from the construction of the 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 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 the cumulative projects 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 and flexible electricity grid in 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. The NRS-KRS Project 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 interrupt 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 in the vicinity 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 cumulative projects also have the potential to increase use of park facilities, but the increased use would also be minimal. The projects would have less than significant effects on recreation and would not contribute to cumulative effects associated with other projects.

Transportation. Construction would occur in a highly urbanized setting and would therefore create temporary impacts to traffic volumes, road hazards, and emergency access 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. While construction would create impacts, these impacts would be localized, temporary in nature, and would not change long-term traffic loads or patterns. 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 MM T1 (Construction Traffic Control Plan) discussed in Section 5.17, Transportation and Traffic.

Impacts from the proposed Project, combined with construction of the cumulative projects would have the potential to cumulatively impact transportation and traffic in the surrounding area; however, the construction schedules of the Projects and that of the proposed Project would be variable. The potential for the planned and current projects in the vicinity to require lane closures simultaneously would be a remote possibility and would be limited in duration and location. Adherence to mitigation measure MM T-1 (Construction Traffic Control Plan) would 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 site or surrounding area. 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 MM TCR-1 (Management of Unanticipated Tribal Cultural Resources), discussed in Section 5.18 (Tribal Cultural Resources), would ensure evaluation and protection of unanticipated TCR discoveries. Adherence to this mitigation measure 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 generate minimal demand for water or wastewater treatment. Construction would require the disposal of a less than significant amount of all types of waste. No expanded utility 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 proposed Project would not require any demand for water or wastewater treatment. Therefore, a less than significant contribution to cumulative impacts to utilities and service systems would occur.

Wildfire. The construction of the Proposed Project would require temporary lane closures. The potential for the planned and current projects in the vicinity to require lane closures simultaneously would be a remote possibility and would be limited in duration and location. Implementation of MM T-1 (Construction Traffic Control Plan) would ensure that at least one lane of travel would remain open. Since the Proposed Project is not located in or near a very high fire hazard severity zone and is in an urban area with flat topography and low fuel load, the risk of wildfire is low. Furthermore, the Proposed Project would be unstaffed and would require only occasional maintenance with a small crew. The Proposed Project would be installing new electrical line equipment, which would reduce the risk of system failure due to aging equipment, which would reduce the cumulative fire risk for the area. Therefore, a less than significant contribution to cumulative impacts to wildfire would occur.

Corona and Induced Current Effects. None of the planned or current projects in the vicinity of the proposed Project would be sensitive to corona or induced current effects. 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. 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 short-term construction period 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 Section 6, Mitigation Monitoring and Reporting Program, 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 for the existing substations and existing SVP transmission lines, 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.

6. MITIGATION MONITORING PLAN

This Mitigation Monitoring and Reporting Program (MMRP) will be used by the City of Santa Clara and SVP to ensure that the mitigation measures adopted as a condition of project approval are 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 responsibility to adhere to the MMRP requirements and other contractual requirements related to the implementation of mitigation.

Table 6-1. Mitigation Monitoring Plan

Impact	Mitigation Measure	Monitoring Requirement	Timing of Action
Air Quality			
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, and graded areas) 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 areas to be paved shall be completed as soon as possible. Foundation pads shall be laid as soon as possible after grading. ■ 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 regarding idling 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			
Special Status Wildlife Species	MM BIO-1. Implement Worker Environmental Awareness Program. Prior to and for the duration of any vegetation removal and trimming and any ground disturbing activities, SVP or its designee shall provide Worker Environmental Awareness Program (WEAP) training to all new personnel prior to beginning work on the Project. The training may be presented in the form of a video. The training program shall be developed by a qualified biologist to educate Project personnel about the Project’s sensitive biological resources. The name and credentials of the qualified biologist shall be submitted to the City no less than 14 days prior to the surveys for review and approval. A draft of the training program (i.e., video and written materials) shall be submitted to the City no less than 14 days prior for approval prior to implementation. The WEAP shall include, at a minimum:	Monitor implementation of specified biological monitor activities	Prior to and during construction
Special Status Wildlife Species	MM BIO-2. Biological Monitoring. SVP or its designee shall retain a qualified biologist as biological monitor on the Project, to be approved by the City. If sensitive biological resources are identified during preconstruction surveys or incidentally, the qualified biologist will monitor Project work locations in proximity to sensitive biological resources weekly until biological resources are not found for one consecutive month, at which point weekly monitoring will cease. The qualified biologist shall be notified immediately if any nesting birds or other biological resources are discovered once construction begins. The qualified biologist will be the point of contact for any employee or contractor who might	Monitor sensitive biological resources if identified during preconstruction survey	Prior to and during construction

Impact	Mitigation Measure	Monitoring Requirement	Timing of Action
	inadvertently kill or injure a special-status species or anyone who finds a dead, injured, or entrapped animal. 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, permit conditions, or other Project requirements, or will have an unauthorized adverse effect on biological resources.		
Special Status Wildlife Species	MM BIO-3. Conduct Preconstruction Surveys for Special-Status Wildlife and Implement Avoidance Measures. A qualified biologist shall conduct a preconstruction survey for each of the species identified below. These surveys can be combined if they meet the requirements outlined in this measure. The name and credentials of the qualified biologist shall be submitted to the City no less than 14 days prior to the surveys for review and approval. Within 14 days of completion of the surveys, the City shall be provided with a report describing the findings, including the date, time, and duration of the surveys; identity of the surveyor(s); a list of all common and special-status species observed; locations of any special-status species identified, including any established avoidance buffers; and any actions taken at the direction of the City in coordination with CDFW, and/or USFWS. <u>Bumble Bee:</u> A preconstruction survey for Crotch's bumble bee and western bumble bee shall be conducted during the colony active period for each species (April through August) prior to project vegetation management and ground disturbing activities. The survey shall be conducted by a qualified entomologist or biologist familiar with the life history and ecology of special-status bumble bee species. The preconstruction survey for special-status bumble bees shall focus on the ruderal habitat within the utility right-of-way adjacent to the Northern Receiving Station and landscaped and ruderal land at the Montague Expressway interchange. The survey shall identify any potential foraging, nesting, and/or overwintering resources present within the Project work areas and a 50-foot buffer where legal access is available. If a potential active special-status bumble bee nest site is identified, a 50-foot avoidance buffer shall be clearly delineated with staking, flagging, and/or signage and Project activities will be prohibited from the area until it is determined that the nest is no longer potentially active. The qualified biologist shall notify the City for coordination with CDFW within 24 hours as further coordination may be required to avoid or mitigate impacts. <u>Burrowing Owl.</u> No later than seven days prior to start of project vegetation management and ground disturbing activities, a qualified biologist shall conduct a preconstruction survey for burrowing owl. The survey shall include the focus areas (described below) plus a 250-foot buffer where legal access is available. The survey for burrowing owl shall focus on the ruderal habitat described for bumble bees above. If burrows or other structures are identified that contain signs of use by burrowing owl, or if burrowing owl(s) is observed, an avoidance buffer area shall be clearly delineated with staking, flagging, and/or signage. If during the nesting season (February 1 to August 31), a 250-foot avoidance buffer shall be established, and Project activities will be prohibited from the area until a qualified biologist determines it is occupied either by a non-mated pair or the young have fledged. If outside the nesting season, a 160-foot avoidance buffer shall be established. The prescribed buffers may be adjusted by the qualified avian biologist in coordination with the City and CDFW based on existing conditions around the burrow, planned construction activities, tolerance of the species at a given location, and other pertinent factors. If avoidance of burrowing owls is not feasible and work will be conducted outside the nesting season, a	Monitor implementation of specified biological monitor activities and implement avoidance measures	Prior to and during construction

Impact	Mitigation Measure	Monitoring Requirement	Timing of Action
	Burrowing Owl Passive Relocation Plan shall be developed to provide detailed methods and guidance for passive relocation of burrowing owls. The Burrowing Owl Passive Relocation Plan shall be submitted to the City for approval in coordination with CDFW prior to conducting passive relocation. An occupied burrow may not be disturbed during the nesting season, unless a qualified biologist determines, by non-invasive methods, that it is not occupied by a mated pair. Passive relocation would include installation of one-way doors on burrow entrances that would let owls out of the burrow but would not let them back in. Once owls have been passively relocated, burrows will be carefully excavated by hand and collapsed by, or under the direct supervision, of a qualified biologist. Within 14 days of completion of the surveys, the City shall be provided with a report describing the findings, including the date, time, and duration of the surveys; identity of the surveyor(s); any established avoidance buffers in the event burrowing owls are documented to be present; and any actions taken at the direction of the City and/or CDFW. <u>Western Pond Turtle:</u> No later than seven days prior to start of project vegetation management and ground disturbing activities, a qualified biologist shall conduct a preconstruction survey for western pond turtle. The survey for western pond turtle shall focus on the ruderal habitat within the utility right-of-way southeast adjacent to the Northern Receiving Station. Western pond turtle or other special-status wildlife found within the Project site during the surveys shall be allowed to leave on its own volition prior to the onset of construction. If species of special concern are found within the Project site during surveys and will not leave on its own volition, the species will be relocated to the nearest suitable habitat outside of the Project site. Species of special concern will only be handled by qualified personnel as authorized by CDFW and/or USFWS under an issued state scientific collecting permit (SCP), memorandum of understanding (MOU), or federal recovery permit. Impacts to federally or state-listed species or state-listing candidate species are not authorized. If any State or federally listed, candidate, or proposed species are detected work will be stopped and the applicant shall notify the City for coordination with CDFW and or USFWS, within 24-hours for further direction.		
Special Status Wildlife Species	MM BIO-4. Preconstruction Nesting Bird Surveys and Nest Protection. During the nesting season (February 1 to August 31), preconstruction nesting bird surveys shall be conducted on the site and vicinity by a qualified biologist no more than 7 days before any work activities, including any vegetation removal or trimming, are performed at a given Project location. The surveys shall be conducted following the sequential schedule of the linear Project in a manner that minimizes potential for the surveys to expire before the construction crews proceed to a new Project work location. 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, the biological monitor will determine if there is need for a buffer or shield to minimize disturbance of the nest. Upon this determination and execution of any required minimization action, work may proceed. The extent of the determination will be based upon: acclimation of the species or individual to disturbance, nest type (cavity, tree, ground, etc.), and level and duration of construction activity. If there is a break in construction at a work location for a period	Monitor implementation of measures to protect nesting birds	During nesting season; prior to and during construction

Impact	Mitigation Measure	Monitoring Requirement	Timing of Action
	of 14 or more days during nesting season, a new nesting bird survey shall be undertaken before construction is allowed to commence at that location to determine if any nests have been established. Bird surveys are not required outside of the nesting season. In the unlikely event a special-status or listed species is found nesting nearby, CDFW and USFWS will be notified, and the City will be provided with nest survey results, if requested. When active nests are identified, monitoring for significant disturbance to the birds will be implemented. Construction will not be allowed to continue unless the qualified biologist determines that no disturbance is occurring.		
Special Status Wildlife Species	MM BIO-5. Preconstruction Bat Survey and Implement Avoidance Measures. A qualified biologist shall conduct surveys for special-status bats during the appropriate time of day to maximize detectability to determine if bat species are roosting in trees or other vegetation requiring removal or clearance pruning for the Project. The name and credentials of the qualified biologist shall be submitted to the City no less than 14 days prior to the surveys for review and approval. The survey shall occur no less than 7 days and no more than 14 days prior to beginning tree or other vegetation removal or trimming activities. Survey methodology may include visual surveys for bats (e.g., observation of bats emerging from roosts to forage), inspection for suitable roost habitat, bat sign (e.g. guano), or use of ultrasonic detectors (e.g., Anabat, etc). Visual surveys shall include all trees or other vegetation requiring removal or clearance pruning for the Project. If evidence of bat use is observed, the approximate number and species of bats using the roost shall be determined. Bat detectors may be used to supplement survey efforts. If roosts or a maternity colony are determined to be present, then a Bat Mitigation and Monitoring Plan (Plan) shall be prepared and implemented to mitigate for the loss of roosting habitat. The Plan shall include information pertaining to the species of bat and location of the roost, exclusion methods and roost removal procedures, compensatory mitigation for permanent impacts (including specific mitigation ratios and location of proposed mitigation) and monitoring to assess bat use of mitigation areas. This Plan shall be submitted to the City and CDFW for review and approval prior to project activities that could disturb roosting bats.	Monitor implementation of bat survey and avoidance measures	Prior to and during construction
Compliance with Local Tree Policies and Ordinances	MM BIO-6. Tree Protection Measures for Retained Trees. To minimize the potential damage and ensure the long-term health, stability, and survival of retained trees, measures outlined in the Tree Protection Plan below shall be implemented: <u>Tree Protection Zone</u> ■ A Tree Protection Zone (TPZ) shall be defined by the City Arborist or City designated ISA Certified Arborist for all trees within 20 feet of any excavations that could be affected by project activities and are intended for preservation. A TPZ will not be established for trees within the Project area that are not within this excavation zone. TPZ will be taken down once excavation work is completed within 20 feet. A TPZ will typically include all area within the dripline of trees to be retained. ■ The TPZ will be protected by a fenced enclosure to prevent unauthorized access during project activities. Fencing shall be constructed of sturdy but open material (i.e., orange webbed construction fencing, chain-link) with a minimum height of 4 feet and secured in place. Warning signs (e.g. WARNING – Tree Protection Zone – This fence shall not be moved without approval by the City	Monitor implementation of tree protection measures	Prior to and during construction

Impact	Mitigation Measure	Monitoring Requirement	Timing of Action
	Arborist or a City designated arborist) shall be prominently displayed and visible from all sides of the TPZ fencing. - TPZ fencing shall be installed prior to any demolition, grading, staging, stockpiling, or any other construction activities, and shall remain in place until all construction activities are complete. - No construction, staging, or storage of materials, equipment or vehicles shall occur within the TPZ without advanced approval and oversight by the City Arborist or a City designated ISA Certified Arborist. - No excess soil, excess concrete or concrete wash, chemicals, refuse or other waste shall be placed within the TPZ. - The primary contractor shall be responsible for maintaining TPZ fencing and enforcing all TPZ guidelines outlined above throughout the course of the Project. <u>Site Grading, Excavation, and Trenching</u> - Soil disturbance or grade changes within a TPZ are not permitted unless approved by the City Arborist or a City designated arborist. Any approved grading, excavation or trench work within a TPZ will be field staked and inspected by the City Arborist or a City designated ISA Certified Arborist prior to implementation. - All grading, excavation and trenching work within a TPZ shall be performed under the observation of a City Arborist or City designated ISA Certified Arborist. - All grading shall be designed to provide positive drainage away from the base of trees to be preserved and shall not create ponding within a TPZ. - Grade changes in the vicinity of trees to be preserved should remain as close to natural grade as possible. <u>Canopy Pruning</u> - To the extent possible, any necessary canopy pruning shall be completed prior to the commencement of construction activities. - Pruning shall be performed by a qualified tree service worker under the direction of a ISA Certified Arborist following International Society of Arboriculture tree pruning best management practices. Pruning shall not be performed by construction personnel. <u>Root Pruning</u> - Any roots one inch and larger requiring removal shall be cut cleanly in sound tissue. No pruning seals or paint shall be used on wounds. - Roots two inches and greater shall remain in place and undamaged to the extent practicable. If removal is required, cuts shall be made with the approval and under the direction of an ISA Certified Arborist. <u>Communication for Tree Protection Compliance</u> - A preconstruction meeting shall be arranged for the City Arborist or City designated ISA Certified Arborist to meet with the Project Planner, Project Contractors, Onsite Project Supervisors, Tree Pruning and Removal Contractor, and/or other appropriate Project Leads to review and secure a commitment to comply with all tree protection measures.		

Impact	Mitigation Measure	Monitoring Requirement	Timing of Action
Cultural Resources			
Unanticipated Discoveries of Historical Resources or Unique Archaeological 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, during the course of Project work, might encounter or alter historical resources or important/unique archaeological materials. This program may be combined with any similar required program, such as for biological resources. 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, 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.	Review and attend worker environmental awareness program; Monitor implementation of unanticipated discovery protocols	Prior to construction and during construction
Unanticipated Discoveries of Human Remains	MM CR-2. Treatment of Human Remains. Any 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 landowner for treatment or disposition of the human remains. If the descendant does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from further disturbance. If the landowner 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	Monitor implementation of human remain discovery protocols	During construction

Impact	Mitigation Measure	Monitoring Requirement	Timing of Action
	constitute a cemetery (Section 8100), and willful disturbance of human remains is a felony (Section 7052).		
Geology and Soils			
Geologic and Seismic Hazards	MM G-1. Conduct Geotechnical Investigations. Because seismically induced liquefaction-related ground failure has the potential to damage or destroy Project components, SVP shall cause design-level geotechnical investigation for the Project to be performed that shall include investigations designed to assess the potential for geologic and seismic hazards, and specifically include evaluation of the potential for liquefaction and expansive soils to affect the 115 kV line structures. Where liquefaction or expansive soils hazards are found to exist/verified, appropriate engineering design and construction measures shall be incorporated into the Project design as deemed appropriate by the Project engineer. Finalized Project design incorporating geotechnical recommendations shall be submitted to the City 60 days prior to Project construction.	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 Paleontological Resources. 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. The qualified professional paleontologist shall prepare a Worker Environmental Awareness Program (WEAP) for potentially encountered paleontological resources, and training shall be provided for all staff who will be onsite during excavations. The WEAP shall show what local Pleistocene fossils look like in general, where they may appear in the Project, and how to proceed should material suspected to be a fossil is encountered. The WEAP shall include procedures to follow if paleontological resources are encountered, including: ■ A monitoring plan for soils generated from tubular pole foundation excavations that may encounter Pleistocene sediments. Workers may temporarily halt operations to allow for identification and collection of paleontological resources from soil spoil piles. If a potential significant paleontological resource is noted, a qualified paleontologist or paleontological monitor shall be called to the site identify and collect the fossil. ■ A plan for treatment of 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. ■ Paleontological resource collection treatment, and identification shall meet standards set forth in the Society of Vertebrate Paleontology (2010).	Review Paleontological Resource Monitoring Program; Monitor implementation of Program	Prior to construction and during construction
Hazards and Hazardous Materials			
Hazardous Substances Control	MM H-1 Hazardous Substance Control and Emergency Response. SVP shall implement its hazardous substance control and emergency response. procedures as needed. These 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	Collect and analyze soil samples and, if contamination is discovered, ensure that construction activities are con-	Prior to construction and during construction

Impact	Mitigation Measure	Monitoring Requirement	Timing of Action
	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. 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 resulting from leaks or spills. ■ 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, identify first aid locations and provide other tailboard safety information.	ducted according to SVP's hazardous substance control and emergency response procedures	
Contaminated Soil and Groundwater	MM H-2 Soil and Groundwater Management. Prior to Project construction and ground disturbing activities, SVP shall implement an evaluation of potential soil and groundwater contamination at locations along the Project route where excavation, drilling, auguring, or other significant ground disturbance will occur to prevent mobilization of contaminants and exposure of workers and the public. The evaluation shall be completed at least 60 days prior to the start of Project construction. The evaluation of soil and groundwater shall include, but not be limited to, the following: ■ If contaminants below regulatory screening levels are identified, SVP shall coordinate with SCCDEH regarding soil reuse guidelines; ■ If contaminants exceeding applicable regulatory screening levels for construction workers and residential users published by the RWQCB, DTSC, or the Environmental Protection Agency (EPA) (except for arsenic which is naturally occurring in the area), are encountered during the Soil and Groundwater Characterization Study SVP shall obtain regulatory oversight from SCCDEH and shall prepare a Soil and Groundwater Management Plan (SGMP); and ■ Soils found in concentrations above established thresholds (except for arsenic) shall be removed and disposed of according to California Hazardous Waste Regulations. If a SGMP is needed, the SGMP shall be prepared to guide activities during excavation and other ground disturbing activities to ensure that identified contaminated soils or groundwater are handled, removed, and disposed of properly. The SGMP shall be prepared by a licensed qualified professional and submitted to SCCDEH at least 30 days prior to Project construction and shall include, but not be limited to, the following elements: ■ Procedures and protocols for the safe handling, storage, stockpiling, and disposal of contaminated soils;	Evaluate potential soil and groundwater contamination, if present, prepare and implement a Soil and Groundwater Management Plan	Prior to and during construction

Impact	Mitigation Measure	Monitoring Requirement	Timing of Action
	- Contaminated soil excavated from the site shall be hauled off-site and disposed of at a licensed hazardous materials disposal site; - Protocols to manage and dispose of contaminated groundwater that may be encountered during trenching or subsurface excavation activities, and if dewatering is required; and - Procedures and protocols to follow in the event soils or groundwater not previously identified as contaminated and suspected of being contaminated (on the basis of visual, olfactory, or other evidence) are identified during site grading or excavation activities or dewatering activities to allow for proper identification and characterization, and subsequent proper handling, removal, and disposal.		
Hydrology and Water Quality			
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 or disturbed 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, may be installed before the onset of winter rains or any anticipated storm events if soils are not stabilized. 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 trans-port 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.	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
Transportation			
Construction Traffic Control	MM T-1. Construction Traffic Control Plan. Prior to the start of construction, SVP or its designee shall prepare and submit an Encroachment Permit which will include the construction Traffic Control Plan for review and approval to the City's Department of Public Works 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	Ensure that a Construction Traffic Control Plan is submitted by SVP and approved by the City of Santa Clara	Prior to construction

Impact	Mitigation Measure	Monitoring Requirement	Timing of Action
	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 to the 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. ■ Plans to coordinate with Valley Transportation Authority in advance of construction to minimize disruption to mass transit.		
Tribal Cultural Resources			
Unanticipated Tribal Cultural Resources	MM TCR-1. Management of Unanticipated Tribal Cultural Resources. During project 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, 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.	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

