SANTA CLARA VALLEY WATER DISTRICT

Freedom Bridge Removal Project

Initial Study/Mitigated Negative Declaration

Valley Water

April 2022

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Acronyms and Abbreviations

A	
AB	assembly bill
APE	Area of Potential Effect
ATCMs	Airborne Toxic Control Measures
B	
BAAQMD	Bay Area Air Quality Management District
Bayshore Freeway	Route-101
Basin	San Francisco Bay Area Air Basin
BMP	best management practice
C	
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
Cal OES	California Governor's Office of Emergency Services
Cal/OSHA	California Department of Industrial Relations, Division of Occupational Safety and Health
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDOC	California Department of Conservation
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act (also known as the Superfund Act)
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
City	City of Santa Clara
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO2	carbon dioxide
County	Santa Clara County
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CUPA	Certified Unified Program Agency

CWA	Clean Water Act
D	
dB	decibel
dBA	A-weighted decibel
DPM	diesel particulate matter
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
E	
EIA	U.S. Energy Information Administration
EMFAC	Emission Factors
EO	Executive Order
ESA	Endangered Species Act
EST	estuarine habitat
E	
Farmland	Prime Farmland, Unique Farmland, or Farmland of Statewide Importance
FEMA	Federal Emergency Management Agency
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Administration
G	
GHG	greenhouse gas
H	
HAP	hazardous air pollutant
HCP	habitat conservation plan
hp	horsepower
HUC	Hydrologic Unit Code
Hz	hertz
I	
IEPR	Integrated Energy Policy Report
in/sec	inches per second
IS/MND	initial study/mitigated negative declaration
K	
KOP	key observation point
kV	kilovolt
kW	kilowatt
kW/m2	kilowatt per square meter

L

Ldn	energy average of the A-weighted sound levels occurring during a 24-hour period
LEED	Leadership in Energy & Environmental Design
Leq	equivalent steady-state sound level
Lmax	maximum sound level
Lmin	minimum sound level
LOS	level of service

M

MBTA	Migratory Bird Treaty Act
MLD	Most Likely Descendant
MMT CO2e	million metric tons of carbon dioxide equivalents
MRZ	Mineral Resource Zone
msl	mean sea level
MTCO2e	metric tons of carbon dioxide equivalents
$MTCO_2e/yr$	metric tons of carbon dioxide equivalents per year

N

NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NMFS	National Marine Fisheries Service
NO2	nitrogen dioxide
NOx	oxides of nitrogen
NPPA	Native Plant Protection Act of 1977
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places

O

O_3	ozone
OEHHA	[California] Office of Environmental Health Hazard Assessment
OSHA	Occupational Safety and Health Administration

P

PG&E	Pacific Gas and Electric
PM2.5	particulate matter of aerodynamic radius of 10 micrometers or less
PM10	particulate matter of aerodynamic radius of 10 micrometers or less
Porter–Cologne Act	Porter–Cologne Water Quality Control Act
ppm	parts per million
PPV	peak particle velocity

Proposed Project	Freedom Bridge Removal Project
PST	Pacific Standard Time

R

RCRA	Resource Conservation and Recovery Act of 1976
RCPS	Regional Climate Protection Strategy
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board

S

SB	Senate Bill
SMARA	Surface Mining and Reclamation Act of 1975
SO2	sulfur dioxide
SVP	Silicon Valley Power
SWRCB	State Water Resources Control Board

T

TAC	toxic air contaminant
TCP	traditional cultural properties
TCR	tribal cultural resource

U

U.S.	United States of America
USC	U.S. Code
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tank

V

VdB	vibration velocity in decibels

W

Williamson Act	California Land Conservation Act of 1965

°F	degrees fahrenheit
µg/m3	micrograms per cubic meter

Key Terminology

Beneficial Impact: A project impact is considered beneficial if it would result in the enhancement or improvement of an existing physical condition in the environment – no mitigation is required when an impact is determined to be beneficial.

Best Management Practices: Measures typically derived from standardized Santa Clara Valley Water District (Valley Water) operating procedures. These practices have been identified as methods, activities, procedures, or other management practices for the avoidance or minimization of potential adverse environmental effects. They have been designed for routine incorporation into project designs and represent the "state of the art" impact prevention practices.

Less-than-significant Impact: This is indicated in the Initial Study checklist where the impact does not reach the standard of significance set for that factor and the project would therefore cause no substantial change in the environment (no mitigation needed).

Less-than-significant Impact with Mitigation: This is indicated in the Initial Study checklist where the impact is determined to exceed the applicable significance criteria, but for which feasible mitigation measure(s) are available to reduce the impact to a level of less-than-significant.

Mitigation Measures: Mitigation includes: (a) avoiding the impact altogether by not taking a certain action or parts of an action; (b) minimizing impacts by limiting the degree or magnitude of the action and its implementation; (c) rectifying the impact by repairing, rehabilitating, or restoring the impacted environment; (d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and (e) compensating for the impact by replacing or providing substitute resources or environments.

No Impact: This is indicated in the Initial Study where, based on the environmental setting, the stated environmental factor does not apply to the Project.

Potentially Significant Impact: This is indicated in the Initial Study where the project impact may cause a substantial adverse change in the environment, but for which (1) no feasible mitigation is available to reduce the impact to a less-than-significant level, or (2) feasible mitigation has been identified but the residual impact remains significant after mitigation is applied.

Significance Criteria: A set of criteria used by the lead agency to determine whether an impact would be considered significant. Valley Water relied upon the significance criteria set forth in the California Environmental Quality Act (CEQA) Guidelines and criteria based on the regulatory standards of local, State and federal agencies.

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Chapter 1
INTRODUCTION

1.1 Organization of this Document

This document is organized to assist the reader in understanding the potential impacts that the Proposed Project may have on the environment and to fulfill CEQA (Public Resources Code [PRC] Section 21000 *et seq*.). Chapter 1 indicates the purpose under CEQA, sets forth the public participation process, and summarizes applicable State and federal regulatory requirements. Chapter 2 describes the location and features of the project. Chapter 3 evaluates the potential impacts through the application of the CEQA Initial Study Checklist questions to project implementation. Chapter 4 lists the contributors, and Chapter 5 supplies the references used in its preparation.

1.2 Purpose of the Mitigated Negative Declaration

The Santa Clara Valley Water District (Valley Water), acting as the Lead Agency, prepared a draft Mitigated Negative Declaration (MND) to provide the public, responsible agencies and trustee agencies with information about the potential environmental effects of the Freedom Bridge Removal Project (Proposed Project), which is proposed by the Intel Corporation (Intel or Project Proponent).

This MND was prepared consistent with CEQA, the CEQA Guidelines (Title 14, California Code of Regulations [CCR] 15000 et seq.), and Valley Water procedures for implementation of CEQA (Environmental Management System - Environmental Planning Q520D01). CEQA requires that public agencies such as Valley Water identify the significant adverse impacts and beneficial environmental effects of their actions. Beneficial impacts should be encouraged and expanded where possible and adverse impacts should be avoided or minimized, or mitigated in cases where avoidance and minimization are not possible.

In addition to acting as the CEQA Lead Agency for its projects; Valley Water's mission includes objectives to conduct its activities in an environmentally sensitive manner as a steward of Santa Clara Valley watersheds. Valley Water strives to preserve the natural qualities, scenic beauty and recreational uses of Santa Clara Valley's waterways by using methods that reflect an ongoing commitment to conserving the environment.

1.3 Decision to Prepare a Mitigated Negative Declaration

The Initial Study (Chapter 3) for the Project identifies potentially significant effects on biological resources. Mitigation measures have been proposed for the Project to reduce such effects to less-than-significant levels; and therefore, the proposed Mitigated Negative Declaration is consistent with CEQA Guidelines Section 15070 which indicate that a mitigated negative declaration is appropriate when:

The Proposed Project Initial Study identifies potentially significant effects, but:

a. Revisions to the project plan were made that would avoid, or reduce the effects to a point where clearly no significant effects would occur, and

b. There is no substantial evidence that the Project, as revised, may have a significant effect on the environment.

1.4 Public Review Process

This draft MND will be circulated to local and State agencies, interested organizations, and individuals who may wish to review and provide comments on the description, the proposed mitigation measures or other aspects of the report. The publication will commence the 30-day public review period per CEQA Guidelines Section 15105(b) beginning on April 4, 2022 and ending on May 3, 2022.

The draft MND will be available for public review from 8 a.m. to 5 p.m. weekdays at the Valley Water Headquarters Building (5700 Almaden Expressway, San Jose, CA 95118) starting April 4, 2022. A copy of the draft MND will also be available at the Central Park Library reference desk (2635 Homestead Road, Santa Clara, CA 95051). The public comment period on the draft MND closes at 5 p.m. on May 3, 2022. The draft MND can also be accessed online at the following locations:

- Valley Water website: https://www.valleywater.org/public-review-documents
- State Clearinghouse CEQAnet Web Portal: https://ceqanet.opr.ca.gov

Comments on the draft MND should be submitted via mail or electronically by 5 p.m. on May 3, 2022 to:

Abby Annicchiarico
Assistant Environmental Planner I
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3614
Phone: (408) 630-2456
e-mail: aannicchiarico@valleywater.org

The proposed MND along with any comments will be considered by Valley Water prior to a decision on the Proposed Project.

1.5 Interagency Collaboration and Regulatory Review

The CEQA review process is intended to provide both trustee and responsible agencies with an opportunity to provide input into the project. Trustee agencies are State agencies that have authority by law for the protection of natural resources held in trust for the public. CEQA Responsible agencies are those that have some responsibility or authority for carrying out or approving a project; in many instances these public agencies must make a discretionary decision

to issue a local permit; provide right-of-way, funding or resources that are critical to the project's proceeding. In this instance the California Department of Fish and Wildlife (CDFW), San Francisco Bay Regional Water Quality Control Board (RWQCB), and the City of Santa Clara are considered responsible agencies for purpose of CEQA. Valley Water will work with the CDFW, RWQCB, and the City of Santa Clara to ensure that the Proposed Project meets applicable policies and requirements.

This MND is intended to assist State and local agencies to carry out their responsibilities for permit review or approval authority over various aspects of the Proposed Project. The Proposed Project would likely require project-specific permitting and/or review as summarized in Table 1-1 below.

Table 1-1. Applicable Permit and Regulatory Requirements

Regulatory Agency	Law/Regulation	Purpose	Permit/Authorization Type
Regional Water Quality Control Board – San Francisco Bay Region	Porter-Cologne Water Quality Control Act	Regulates discharges of materials to land and protection of beneficial uses of waters of the state	Waste Discharge Requirements
California Department of Fish and Wildlife	Fish and Game Code Section 1602	Applies to activities that will substantially modify a river, steam, or lake; includes reasonable conditions necessary to protect those resources	Streambed Alteration Agreement
City of Santa Clara	City ordinance	Applies to demolition of structures in the City of Santa Clara	Demolition Permit

Intel (the Project Proponent) conducted early coordination with staff from CDFW and RWQCB in 2019 to solicit agency feedback on potential project impacts, mitigation, and permitting requirements. In 2016, the U.S. Army Corps of Engineers (USACE) confirmed that no Clean Water Act (CWA) Section 404 or Section 10 permits are required for the Proposed Project. Agency feedback was incorporated or considered during development of this MND.

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Chapter 2
PROJECT DESCRIPTION

2.1 Project Background

The Proposed Project is located on San Tomas Aquino Creek in the City of Santa Clara, between Mission College Boulevard and Highway 101 (Figure 2-1) and involves removal of an existing pedestrian bridge and associated structures. Valley Water and Intel's lease agreement was extended to October 2022 to allow Intel to remove the Freedom Bridge. Proposed Project implementation has been divided into two phases. Phase I includes the removal of the existing bridge structure and Phase II includes removal of bridge abutments and associated re-grading and re-paving of the San Tomas Aquino Creek Trail and the Valley Water levee maintenance road in the vicinity of the abutments (Figure 2-2). The Freedom Bridge is an approximately 125-foot long steel beam span bridge resting on concrete abutments built on constructed levee slopes. The paved San Tomas Aquino Creek Trail is located on the western side of the bridge, and a Valley Water levee maintenance road is located on the eastern side (Figure 2-2).

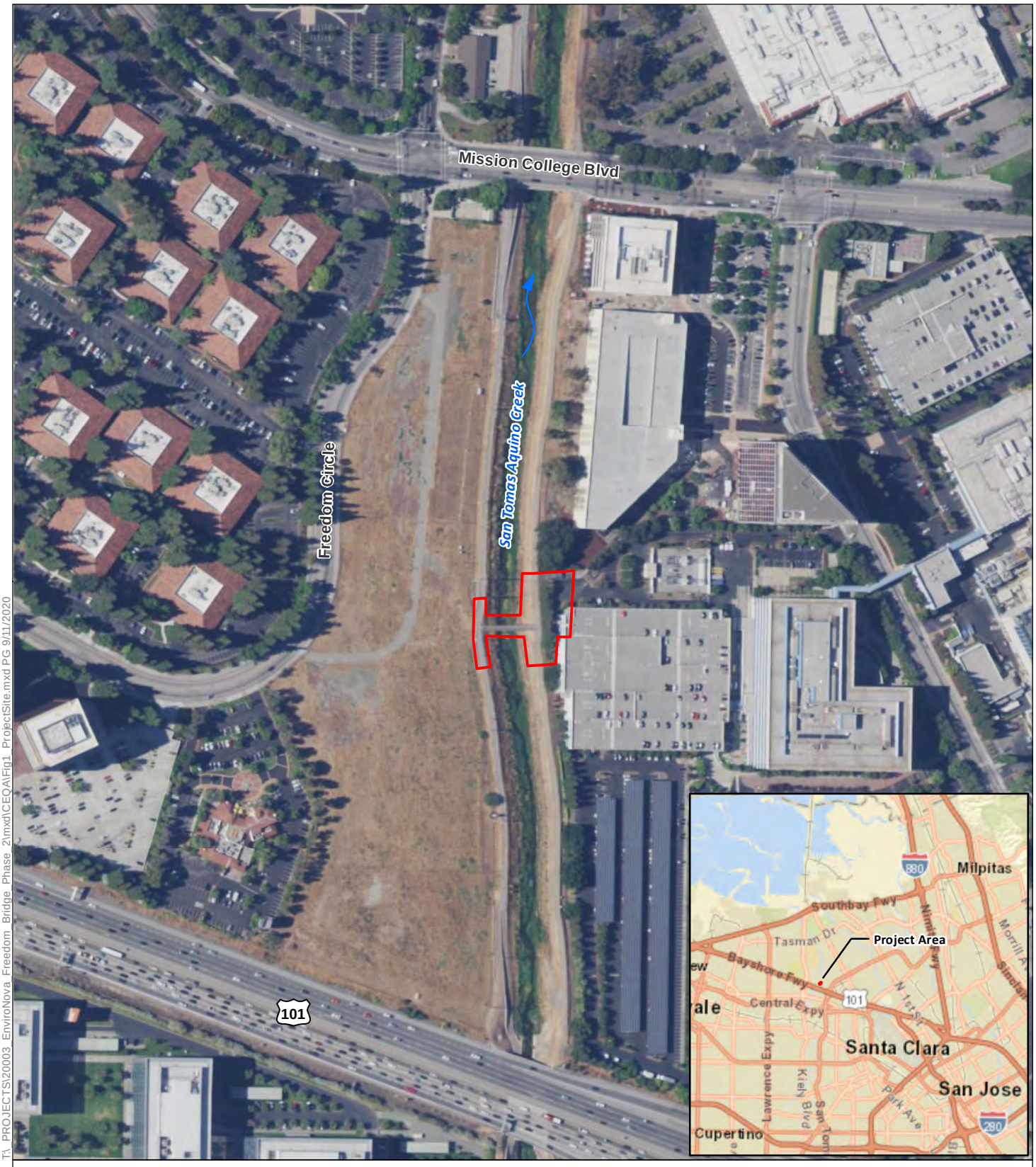
2.2 Project Purpose and Objectives

The Proposed Project purpose is to remove the Freedom Bridge from its current location, and to restore any areas temporarily impacted by the bridge removal.

2.3 Phase I

Phase I bridge demolition would require temporary shoring of the bridge, which involves installation of four shoring posts (two on each side of the bridge) underneath the bridge beams. Hand excavation of four 3x3-foot areas would occur to provide a level base along the channel banks for the shoring posts. A 6-inch thick timber bearing pad would be placed in each of these areas, and the adjustable steel shoring post installed on top of the bearing pad and clamped to the bridge beams. The shoring posts would be braced by 2x6-inch wood bracings. No activities would take place below ordinary high water of San Tomas Aquino Creek. However temporary disturbance would occur on the levee slopes.

The bridge would be removed in three sections using a crane. The crane is anticipated to be stationed just south of the bridge on top of the levee. Outriggers would be used to stabilize the crane on either side of the levee. Two of the outriggers would be located on the inboard side of the levee slope, above the ordinary high water mark of the creek. The process for setting the outriggers would be similar to that described above for the temporary shoring. Excavation of two 5x12-foot areas would occur using a mini excavator and hand labor, and then two 5x12-foot wood mats would be installed to support the crane outriggers. The earth removed would be stockpiled on site and returned to the same location after the bridge is removed. The other two outriggers would be placed on the slope leading to the Intel parking lot to the east of the access road (the outboard side of the levee).



T:\ PROJECTS\20003 EnviroNova Freedom Bridge Phase 2\mxd\CEQA\Fig1 ProjectSite.mxd PG 9/11/2020

Data Source: ESRI 2020

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Feet

Proposed Project Area

Figure 2-1
Proposed Project Area

Horizon WATER and ENVIRONMENT

Freedom Bridge
Removal Project

A section of existing chain-link fence would be temporarily removed, and some trees along the access route and crane mobilization location would be trimmed; however, no tree removal is planned. Compacted base rock would be installed to level and raise the parking lot areas to accommodate installation of the wood mats for these two outriggers.

Following installing of the temporary shoring, a catch screen/tarp would be installed at the four bridge cut points, where wood would be removed and beams would be cut, to ensure any falling material does not enter the creek. Following the crane set-up, the center section of the bridge (approximately 45 feet long) would be cut using welding torches. This section would be lifted by the crane and placed on the existing levee maintenance road, located to the east of the creek (Figure 2-2). It would then be disassembled and placed into trucks for off haul. This operation would be repeated for the western portion of the bridge and then the eastern portion, both approximately 35 feet long. Following off haul of the bridge materials, the crane would demobilize and leave the site using the same route it entered by. The temporary shoring would be removed, and the excavated areas of the levee slope would be restored to their original contours.

2.4 Phase II

Following the completion of Phase I, the bridge abutments, asphalt pavement on the San Tomas Aquino Creek Trail, gravel on the levee maintenance road, and associated levee fill would be removed. Pavement/gravel, and levee fill would be removed from approximately 130 linear feet (LF) of the levee maintenance road (east side of bridge), and approximately 110 LF of the San Tomas Aquino trail (west side of the bridge). These areas would be recontoured to match the existing grade of the levee maintenance road and trail to the north and south of the work areas. Any voids left in the levee slope following abutment removal would be backfilled with approved levee fill material. Stairs and railing located to the east of the levee maintenance road would also be removed.

Following grading, aggregate base rock would be placed on the levee maintenance road and asphaltic concrete would be placed on the San Tomas Aquino trail. Hydroseeding of temporarily disturbed areas on the levee slope would occur once other Phase II work has been completed. Erosion control seed or native seed mix may be used consistent with the Valley Water Guidelines and Standards for Land Use Near Streams, Design Guide 5, 'Temporary Erosion Control Options.'

2.5 Site Access and Staging Areas

Equipment and workers would access the site from the north from Mission College Boulevard and would travel along the existing levee maintenance road or the San Tomas Aquino trail. Phase I staging areas would be located either on the levee maintenance road or the Intel parking lot immediately east of the bridge. Phase II staging areas would be located immediately north or south of the work areas on the trail or levee maintenance road (Figure 2-2).

2.6 Erosion Control

Erosion control measures (anticipated to be silt fence, straw wattles, and straw bales) would be installed per the Proposed Project's erosion control plan.

2.7 Pedestrian and Bicycle Access

During Phase I, pedestrians and bicyclists would be excluded from the work area, but would be able to travel along the paved San Tomas Aquino Trail to the west of the bridge. During Phase II, the San Tomas Aquino Creek Trail would be closed between Agnew Road and Scott Boulevard, and pedestrians and bicyclists would be routed along the detour shown in Figure 2-3.

2.8 Equipment

Equipment anticipated to be used during the Proposed Project includes:

Phase I

- Crane (Link-Belt ATC-3275 or similar)
- Trucks for off-haul
- Torches
- Mini-excavator (track mounted 12,000 lb class or similar)
- Power and hand-tools for on-land bridge disassembling
- Skid steer bobcat loader

Phase II

- Mini-excavator (track mounted 12,000 lb class or similar) with hydraulic hammer
- Skid steer bobcat loader for the abutment removal
- Three axle trucks for off-haul
- Pavers
- Rollers

2.9 Schedule

The Proposed Project is anticipated to occur during the dry season (April through October) of 2022. Phase I work is anticipated to occur over 10 workdays, and Phase II work is anticipated to occur over 44 work days. Phase II work is anticipated to include 4 days of abutment removal and 40 days of grading and paving.

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Data Source: ESRI 2020

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Horizon WATER and ENVIRONMENT

Proposed Project Area

Project Elements

Bridge Removal - Phase I

Demolition and Repaving - Phase II

Figure 2-2
Project Elements

Freedom Bridge Removal Project

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Data Source: ESRI 2020

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Feet

Proposed Project Area

Bike/Pedestrian Detour Route

Trail Section Closed During Construction

Trail Section Accessible During Construction

Figure 2-3
Phase II Pedestrian/Bicyclist Detour

Freedom Bridge Removal Project

Horizon WATER and ENVIRONMENT

2.10 Best Management Practices

Best Management Practices (BMPs) are practices that prevent, avoid, or minimize potentially adverse effects associated with construction and other activities. Project BMPs are included in **Table 2-1**. Additional environmental measures developed to mitigate specific impacts associated with Project implementation and not avoidable through standard construction BMPs are identified in Chapter 3 of this MND. All BMPS and mitigation measures are provided in the draft Mitigation Monitoring and Reporting Program (MMRP) table.

All BMPs would be incorporated into the Project construction documents (plans and specifications) so contractors employed on the Project would be contractually required to adhere to them.

Table 2-1. Best Management Practices

BMP	BMP Description
Air Quality	
AQ-1 **Use Dust Control Measures**	The following Bay Area Air Quality Management District (BAAQMD) Dust Control Measures will be implemented: 1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day; 2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered; 3. 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; 4. Water used to wash the various exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, etc.) will not be allowed to enter waterways; 5. All vehicle speeds on unpaved roads shall be limited to 15 mph; 6. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used; 7. 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), and this requirement shall be clearly communicated to construction workers (such as verbiage in contracts and clear signage at all access points); 8. All construction equipment shall be maintained and properly tuned in accordance with manufacturer‘s specifications, and all equipment shall be checked by a certified visible emissions evaluator;

BMP	BMP Description
	9. Correct tire inflation shall be maintained in accordance with manufacturer's specifications on wheeled equipment and vehicles to prevent excessive rolling resistance; and 10. Post a publicly visible sign with a telephone number and contact person at the lead agency to address dust complaints; any complaints shall be responded to and take corrective action within 48 hours. In addition, a BAAQMD telephone number with any applicable regulations will be included.
AQ-2 **Reduce Construction-related NO_X Emissions**	Nitrogen oxide (NO_X) construction mitigation measures recommended by BAAQMD will be implemented, including the following: 1. Minimize idling time either by shutting equipment off when not in use or by reducing the time of idling to 5 minutes [required by 13 CCR Sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site. 2. Maintain all construction equipment in proper working condition in accordance with manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated. 3. Provide a plan for approval by Valley Water demonstrating that the construction contractors' heavy-duty off-road vehicles (50 horsepower or more) to be used in Project construction, including owned, leased, and subcontractor vehicles, will achieve a Project-wide fleet-average 20 percent NO_X reduction and 45 percent particulate reduction compared to the most recent California Air. Resources Board fleet average. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. 4. Ensure that emissions from Valley Water's construction contractors' off-road diesel-powered equipment used on the Project site do not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) will be repaired immediately. 5. A visual survey of all in-operation equipment will be made at least weekly.
Biological Resources	
BI-1 **Avoid Impacts to Nesting Migratory Birds**	Nesting birds are protected by state and federal laws. The District will protect nesting birds and their nests from abandonment, loss, damage, or destruction. Nesting bird surveys will be performed by a qualified biologist prior to any activity that could result in the abandonment, loss, damage, or destruction of birds, bird nests, or nesting migratory birds. Inactive bird nests may be removed with the exception of raptor nests. Birds, nests with eggs, or nests with hatchlings will be left undisturbed.

BMP	BMP Description
BI-2 **Avoid Impacts to Nesting Migratory Birds from Pending Construction**	Nesting exclusion devices may be installed to prevent potential establishment or occurrence of nests in areas where construction activities would occur. All nesting exclusion devices will be maintained throughout the nesting season or until completion of work in an area makes the devices unnecessary. All exclusion devices will be removed and disposed of when work in the area is complete.
BI-3 **Choose Local Ecotypes Of Native Plants and Appropriate Erosion-Control Seed Mixes**	Whenever native species are prescribed for installation the following steps will be taken by a qualified biologist or vegetation specialist: 1. Evaluate whether the plant species currently grows wild in Santa Clara County; and, 2. If so, the qualified biologist or vegetation specialist will determine if any need to be local natives, i.e. grown from propagules collected in the same or adjacent watershed, and as close to the project site as feasible. Also, consult a qualified biologist or vegetation specialist to determine which seeding option is ecologically appropriate and effective, specifically: 1. For areas that are disturbed, an erosion control seed mix may be used consistent with the SCVWD Guidelines and Standards for Land Use Near Streams, Design Guide 5, 'Temporary Erosion Control Options.' 2. In areas with remnant native plants, the qualified biologist or vegetation specialist may choose an abiotic application instead, such as an erosion control blanket or seedless hydro-mulch and tackifier to facilitate passive revegetation of local native species. 3. Temporary earthen access roads may be seeded when site and horticultural conditions are suitable. 4. If a gravel or wood mulch has been used to prevent soil compaction, this material may be left in place [if ecologically appropriate] instead of seeding. Seed selection shall be ecologically appropriate as determined by a qualified biologist, per Guidelines and Standards for Land Use Near Streams, Design Guide 2: Use of Local Native Species.
BI-4 **Avoid Animal Entry and Entrapment**	All pipes, hoses, or similar structures less than 12 inches diameter will be closed or covered to prevent animal entry. All construction pipes, culverts, or similar structures, greater than 2-inches diameter, stored at a construction site overnight, will be inspected thoroughly for wildlife by a qualified biologist or properly trained construction personnel before the pipe is buried, capped, used, or moved. If inspection indicates presence of sensitive or state- or federally-listed species inside stored materials or equipment, work on those materials will cease until a qualified biologist determines the appropriate course of action.

BMP	BMP Description
	To prevent entrapment of animals, all excavations, steep-walled holes or trenches more than 6-inches deep will be secured against animal entry at the close of each day. Any of the following measures may be employed, depending on the size of the hole and method feasibility: 1. Hole to be securely covered (no gaps) with plywood, or similar materials, at the close of each working day, or any time the opening will be left unattended for more than one hour; or 2. In the absence of covers, the excavation will be provided with escape ramps constructed of earth or untreated wood, sloped no steeper than 2:1, and located no farther than 15 feet apart; or In situations where escape ramps are infeasible, the hole or trench will be surrounded by filter fabric fencing or a similar barrier with the bottom edge buried to prevent entry.
BI-5 **Minimize Predator-Attraction**	Remove trash daily from the worksite to avoid attracting potential predators to the site.
Cultural Resources	
CU-1 **Accidental Discovery of Archaeological Artifacts or Burial Remains**	If historical or unique archaeological artifacts are accidentally discovered during construction, work in affected areas will be restricted or stopped until proper protocols are met. Work at the location of the find will halt immediately within 100 feet of the find. A “no work” zone shall be established utilizing appropriate flagging to delineate the boundary of this zone. A Consulting Archaeologist will visit the discovery site as soon as practicable for identification and evaluation pursuant to Section 21083.2 of the Public Resources Code and Section 15126.4 of the California Code of Regulations. If the archaeologist determines that the artifact is not significant, construction may resume. If the archaeologist determines that the artifact is significant, the archaeologist will determine if the artifact can be avoided and, if so, will detail avoidance procedures. If the artifact cannot be avoided, the archaeologist will develop within 48 hours an Action Plan which will include provisions to minimize impacts and, if required, a Data Recovery Plan for recovery of artifacts in accordance with Public Resources Code Section 21083.2 and Section 15126.4 of the CEQA Guidelines.

BMP	BMP Description
	If burial finds are accidentally discovered during construction, work in affected areas will be restricted or stopped until proper protocols are met. Upon discovering any burial site as evidenced by human skeletal remains, the County Coroner will be immediately notified and the field crew supervisor shall take immediate steps to secure and protect such remains from vandalism during periods when work crews are absent. No further excavation or disturbance within 30 feet of the site or any nearby area reasonably suspected to overlie adjacent remains may be made except as authorized by the County Coroner, California Native American Heritage Commission, and/or the County Coordinator of Indian Affairs.
Hazards and Hazardous Materials	
HM-1 **Restrict Vehicle and Equipment Cleaning to Appropriate Locations**	Vehicles and equipment may be washed only at approved areas. No washing of vehicles or equipment will occur at job sites.
HM-2 **Ensure Proper Vehicle and Equipment Fueling and Maintenance**	No fueling or servicing will be done in a waterway or immediate flood plain, unless equipment stationed in these locations is not readily relocated (i.e., pumps, generators). 1. For stationary equipment that must be fueled or serviced on-site, containment will be provided in such a manner that any accidental spill will not be able to come in direct contact with soil, surface water, or the storm drainage system. 2. All fueling or servicing done at the job site will provide containment to the degree that any spill will be unable to enter any waterway or damage riparian vegetation. 3. All vehicles and equipment will be kept clean. Excessive build-up of oil and grease will be prevented. 4. All equipment used in the creek channel will be inspected for leaks each day prior to initiation of work. Maintenance, repairs, or other necessary actions will be taken to prevent or repair leaks, prior to use. If emergency repairs are required in the field, only those repairs necessary to move equipment to a more secure location will be done in a channel or flood plain.
HM-3 **Ensure Proper Hazardous Materials Management**	Measures will be implemented to ensure that hazardous materials are properly handled and the quality of water resources is protected by all reasonable means. 1. Prior to entering the work site, all field personnel will know how to respond when toxic materials are discovered.

BMP	BMP Description
	2. Contact of chemicals with precipitation will be minimized by storing chemicals in watertight containers with appropriate secondary containment to prevent any spillage or leakage. 3. Petroleum products, chemicals, cement, fuels, lubricants, and non-storm drainage water or water contaminated with the aforementioned materials will not contact soil and not be allowed to enter surface waters or the storm drainage system. 4. All toxic materials, including waste disposal containers, will be covered when they are not in use, and located as far away as possible from a direct connection to the storm drainage system or surface water. 5. Quantities of toxic materials, such as equipment fuels and lubricants, will be stored with secondary containment that is capable of containing 110% of the primary container(s). 6. The discharge of any hazardous or non-hazardous waste as defined in Division 2, Subdivision 1, Chapter 2 of the California Code of Regulations will be conducted in accordance with applicable State and federal regulations. In the event of any hazardous material emergencies or spills, personnel will call the Chemical Emergencies/Spills Hotline at 1-800-510-5151.
HM-4 **Utilize Spill Prevention Measures**	Prevent the accidental release of chemicals, fuels, lubricants, and non-storm drainage water following these measures: 1. Field personnel will be appropriately trained in spill prevention, hazardous material control, and clean up of accidental spills; 2. Equipment and materials for cleanup of spills will be available on site, and spills and leaks will be cleaned up immediately and disposed of according to applicable regulatory requirements; 3. Field personnel will ensure that hazardous materials are properly handled and natural resources are protected by all reasonable means; 4. Spill prevention kits will always be in close proximity when using hazardous materials (e.g., at crew trucks and other logical locations), and all field personnel will be advised of these locations; and 5. The work site will be routinely inspected to verify that spill prevention and response measures are properly implemented and maintained.
HM-5 **Incorporate Fire Prevention Measures**	1. All earthmoving and portable equipment with internal combustion engines will be equipped with spark arrestors. 2. During the high fire danger period (April 1–December 1), work crews will have appropriate fire suppression equipment available at the work site.

BMP	BMP Description
	3. An extinguisher shall be available at the project site at all times when welding or other repair activities that can generate sparks (such as metal grinding) is occurring. 4. Smoking shall be prohibited except in designated staging areas and at least 20 feet from any combustible chemicals or vegetation.
Hydrology/Water Quality	
WQ-1 **Conduct Work from Top of Bank**	For work activities that will occur in the channel, work will be conducted from the top of the bank if access is available and there are flows in the channel.
WQ-2 **Limit Impacts From Staging and Stockpiling Materials**	1. To protect on-site vegetation and water quality, staging areas should occur on access roads, surface streets, or other disturbed areas that are already compacted and only support ruderal vegetation. Similarly, all equipment and materials (e.g., road rock and project spoil) will be contained within the existing service roads, paved roads, or other pre-determined staging areas. 2. Building materials and other project-related materials, including chemicals and sediment, will not be stockpiled or stored where they could spill into water bodies or storm drains. 3. No runoff from the staging areas may be allowed to enter water ways, including the creek channel or storm drains, without being subjected to adequate filtration (e.g., vegetated buffer, swale, hay wattles or bales, silt screens). 4. The discharge of decant water to water ways from any on-site temporary sediment stockpile or storage areas is prohibited. 5. During the wet season, no stockpiled soils will remain exposed, unless surrounded by properly installed and maintained silt fencing or other means of erosion control. During the dry season; exposed, dry stockpiles will be watered, enclosed, covered, or sprayed with non-toxic soil stabilizers.
WQ-3 **Stabilize Construction Entrances and Exits**	Measures will be implemented to minimize soil from being tracked onto streets near work sites: 1. Methods used to prevent mud from being tracked out of work sites onto roadways include installing a layer of geotextile mat, followed by a 4-inch thick layer of 1 to 3-inch diameter gravel on unsurfaced access roads. 2. Access will be provided as close to the work area as possible, using existing ramps where available and planning work site access so as to minimize disturbance to the water body bed and banks, and the surrounding land uses.

BMP	BMP Description
WQ-4 **Use Seeding for Erosion Control, Weed Suppression, and Site Improvement**	Disturbed areas shall be seeded with native seed as soon as is appropriate after activities are complete. An erosion control seed mix will be applied to exposed soils down to the ordinary high water mark in streams. 1. The seed mix should consist of California native grasses, (for example *Hordeum brachyantherum*; *Elymus glaucus*; and annual *Vulpia microstachyes*) or annual, sterile hybrid seed mix (e.g., *Regreen*™, a wheat x wheatgrass hybrid). 2. Temporary earthen access roads may be seeded when site and horticultural conditions are suitable, or have other appropriate erosion control measures in place.
WQ-5 **Maintain Clean Conditions at Work Sites**	The work site, areas adjacent to the work site, and access roads will be maintained in an orderly condition, free and clear from debris and discarded materials on a daily basis. Personnel will not sweep, grade, or flush surplus materials, rubbish, debris, or dust into storm drains or waterways. For activities that last more than one day, materials or equipment left on the site overnight will be stored as inconspicuously as possible, and will be neatly arranged. Any materials and equipment left on the site overnight will be stored to avoid erosion, leaks, or other potential impacts to water quality Upon completion of work, all building materials, debris, unused materials, concrete forms, and other construction-related materials will be removed from the work site.
WQ-6 **Prevent Water Pollution**	Oily, greasy, or sediment laden substances or other material that originate from the project operations and may degrade the quality of surface water or adversely affect aquatic life, fish, or wildlife will not be allowed to enter, or be placed where they may later enter, any waterway. The project will not increase the turbidity of any watercourse flowing past the construction site by taking all necessary precautions to limit the increase in turbidity as follows: 1. where natural turbidity is between 0 and 50 Nephelometric Turbidity Units (NTU), increases will not exceed 5 percent; 2. where natural turbidity is greater than 50 NTU, increases will not exceed 10 percent; 3. where the receiving water body is a dry creek bed or storm drain, waters in excess of 50 NTU will not be discharged from the project. Water turbidity changes will be monitored. The discharge water measurements will be made at the point where the discharge water exits the water control system for tidal sites and 100 feet downstream of the discharge point for non-tidal sites. Natural watercourse turbidity measurements will be made in the receiving water 100 feet upstream of the discharge site. Natural watercourse turbidity measurements will be made prior to initiation of project discharges, preferably at least 2 days prior to commencement of operations.

BMP	BMP Description
WQ-7 **Prevent Stormwater Pollution**	To prevent stormwater pollution, the applicable measures from the following list will be implemented: 1. Soils exposed due to project activities will be seeded and stabilized using hydroseeding, straw placement, mulching, and/or erosion control fabric. These measures will be implemented such that the site is stabilized and water quality protected prior to significant rainfall. In creeks, the channel bed and areas below the Ordinary High Water Mark are exempt from this BMP. 2. The preference for erosion control fabrics will be to consist of natural fibers; however, steeper slopes and areas that are highly erodible may require more structured erosion control methods. No non-porous fabric will be used as part of a permanent erosion control approach. Plastic sheeting may be used to temporarily protect a slope from runoff, but only if there are no indications that special-status species would be impacted by the application. 3. Erosion control measures will be installed according to manufacturer's specifications. 4. To prevent stormwater pollution, the appropriate measures from, but not limited to, the following list will be implemented: ▪ Silt Fences ▪ Straw Bale Barriers ▪ Brush or Rock Filters ▪ Storm Drain Inlet Protection ▪ Sediment Traps or Sediment Basins ▪ Erosion Control Blankets and/or Mats ▪ Soil Stabilization (i.e. tackified straw with seed, jute or geotextile blankets, etc.) ▪ Straw mulch. 5. All temporary construction-related erosion control methods shall be removed at the completion of the project (e.g. silt fences). Surface barrier applications installed as a method of animal conflict management, such as chain link fencing, woven geotextiles, and other similar materials, will be installed no longer than 300 feet, with at least an equal amount of open area prior to another linear installation.
WQ-8 **Manage Sanitary and Septic Waste**	Temporary sanitary facilities will be located on jobs that last multiple days, in compliance with California Division of Occupational Safety and Health (Cal/OSHA) regulation 8 California Code of Regulations 1526. All temporary sanitary facilities will be located where overflow or spillage will not enter a watercourse directly (overbank) or indirectly (through a storm drain).

BMP	BMP Description
Transportation/Traffic	
TR-1 Incorporate Public Safety Measures	Fences, barriers, lights, flagging, guards, and signs will be installed as determined appropriate by the public agency having jurisdiction, to give adequate warning to the public of the construction and of any dangerous condition to be encountered as a result thereof.

Chapter 3
ENVIRONMENTAL CHECKLIST

This chapter of the Initial Study/Mitigated Negative Declaration (IS/MND) assesses the environmental impacts of the Freedom Bridge Removal Project (Proposed Project) based on the environmental checklist provided in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. The environmental resources and potential environmental impacts of the Proposed Project are described in the individual subsections below. Each section includes a discussion of the rationale used to determine the significance level of the Proposed Project's environmental impact for each checklist question. For environmental impacts that have the potential to be significant, mitigation measures are identified that would reduce the severity of the impact to a less-than-significant level.

1.	**Project Title**	Freedom Bridge Removal Project
2.	**Lead Agency Name and Address**	Santa Clara Valley Water District 5750 Almaden Expressway San Jose, CA 95118
3.	**Contact Person, Phone Number and Email**	Abby Annicchiarico (408) 630-2456 e-mail: aannicchiarico@valleywater.org
4.	**Project Location and Assessor's parcel number (APN)**	104-39-018, 104-40-008, 104-40-032
5	**Project Sponsor's Name and Address**	Intel Corporation 2200 Mission College Boulevard SC-9 58-6 Santa Clara, CA 95054
6.	**Property Owner(s)**	Intel, Santa Clara Valley Water District
7.	**General Plan Designation**	Park/Open Space and High Intensity Office/R&D
8.	**Zoning**	Planned Development
9.	**Description of Project**	See Chapter 2, Project Description.
10.	**Surrounding Land Uses and Setting**	Commercial, Transportation

11.	**Other Public Agencies whose Approval or Input May Be Needed**	City of Santa Clara Regional Water Quality Control Board (San Francisco Bay Region) State Historic Preservation Officer California Department of Fish and Wildlife
12.	**Native American Consultation**	See Section 3.18 and Appendix D

Environmental Factors Potentially Affected

The environmental factors checked below would potentially be affected by the Proposed Project, as indicated by the checklist on the following pages.

☐ Aesthetics
☐ Agriculture and Forestry Resources
☐ Air Quality
☒ Biological Resources
☐ Cultural Resources
☐ Energy
☐ Geology/Soils
☐ Greenhouse Gas Emissions
☒ Hazards and 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

Determination

The conclusions and recommendations contained herein are professional opinions derived in accordance with current standards of professional practice. They are based on a review of sources of information cited in this document, and the comments received, conversations with knowledgeable individuals; the preparer's personal knowledge of the area; and, where necessary, a visit to the site.

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 (EIR) 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.

DocuSigned by:
Abby Annicchiarico
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Signature

3/30/2022

Date

Abby Annicchiarico
Assistant Environmental Planner I
Valley Water

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3.1 AESTHETICS

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
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?	☐	☐	☒	☐
Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

3.1.1 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal regulations are applicable to aesthetics in relation to the Proposed Project.

State Laws, Regulations, and Policies

In 1963, the California State Legislature established the California Scenic Highway Program, a provision of the Streets and Highways Code, to preserve and enhance the natural beauty of California (California Department of Transportation [Caltrans] 2020). The state highway system includes designated scenic highways and those that are eligible for designation as scenic highways.

3.1.2 Environmental Setting

The Proposed Project is located in the City of Santa Clara, California on a parcel adjacent to United States (U.S.) Route-101 (Bayshore Freeway) to the south, Mission College Boulevard to the north, and Freedom Circle to the west (see Figure 2-1). The Proposed Project site is

accessible to pedestrians and cyclists on the San Tomas Aquino Creek Trail, located to the west of the Freedom Bridge. The San Tomas Aquino Trail connects to Mission College Boulevard north of the Proposed Project, and to Scotts Boulevard to the south (Figure 2-3). A Valley Water levee maintenance road is located to the east of the bridge, and is not accessible to private vehicles. Pedestrians can also access the Proposed Project from the Intel parking lots located to the east. No other public access points to the Proposed Project are present.

The Proposed Project is located in a flat urban area primarily occupied by commercial and residential uses and is about 0.9 miles south of California's Great America amusement park, one of the largest amusement parks in the South Bay. From the Project site and vicinity, distant views of the western foothills are partially available due to the site and surrounding area's flat topography, though such views are partially blocked by commercial development. For these same reasons, no views of the waterfront and baylands in the City of Santa Clara are available from the Project site.

Visual Character and Quality of the Site

There is minimal vegetation in the area, aside from herbaceous riparian vegetation along San Tomas Aquino Creek and ruderal annual grasses along the levee slopes.

The area surrounding the Project site has an urban character marked by structures to the north, east, and west. South of the site is the Bayshore Freeway. Within the Project site is San Tomas Aquino Creek trail along San Tomas Aquino Creek. The visual quality of the site is low and characteristic of surrounding land uses.

Light and Glare

Nighttime lighting is necessary to provide and maintain safe environments. Light that falls beyond the intended area of illumination is referred to as "light trespass." The most common cause of light trespass is spillover light, which occurs when a lighting source illuminates surfaces beyond the intended area, such as when building security lighting or parking lot lights shine onto neighboring properties. Spillover light can adversely affect light-sensitive uses, such as residences, at night. Both light intensity and fixtures can affect the amount of light spillover. Modern, energy-efficient fixtures that face downward, such as shielded light fixtures, are typically less obtrusive than older, upward-facing light fixtures.

Glare is caused by light reflections from pavement, vehicles, and building materials, such as reflective glass, polished surfaces, or metallic architectural features. During daylight hours, the amount of glare depends on the intensity and direction of sunlight.

The most notable sources of lighting in the Proposed Project vicinity are from streetlights on the surrounding roads, parking lot lighting at the nearby commercial uses to the east, and lighting at commercial areas to the west. Vehicles traveling on U.S. Route-101 and Freedom Circle are another source of lighting, particularly during nighttime hours.

Scenic Highways and Corridors

There are no officially designated or eligible to be designated state scenic highways in the vicinity of the Proposed Project.

Viewer Sensitivity

Viewer sensitivity is another consideration in assessing the effects of visual change. Sensitivity is a function of factors such as the visibility of resources in the landscape, proximity of viewers to the visual resource, elevation of viewers relative to the visual resource, frequency and duration of views, number of viewers, and types and expectations of individuals and viewer groups.

Existing views of the Proposed Project were captured from three key observation points (KOPs), as show on **Figure 3.1-1**. These photographs have been selected as being representative of the types of visual resources that are present in each area.

Views of the Project site and vicinity from each of these KOPs are described as follows:

- **KOP 1:** This KOP shows an existing view from San Tomas Aquino Creek trail looking south towards the center of the Project site (**Figure 3.1-2**). This view represents views from the perspective of a pedestrian or bicyclist traveling on San Tomas Aquino Creek trail. The view shows the San Tomas Aquino Creek, a parking lot, and foothills to the west.

- **KOP 2:** This KOP shows an existing view of the western perimeter of the Project site from the perspective of a pedestrian or bicyclist traveling across Freedom Bridge. As shown in **Figure 3.1-2**, the view shows the undeveloped, disturbed grassland area, metal fencing and telephone poles lining San Tomas Aquino Creek trail, and commercial buildings in the background. The view from KOP 2 can be characterized as urban in character marked by undeveloped land, fencing, and buildings.

- **KOP 3:** This KOP shows an existing view of the eastern perimeter of the Project site from the perspective of a pedestrian or bicyclist traveling along San Tomas Aquino Creek trail. As shown in **Figure 3.1-2**, the view shows the Freedom Bridge, riparian vegetation along San Tomas Aquino Creek, and trees and commercial buildings in the background.

Viewer Groups

Viewer groups in the vicinity of the Project site and their sensitivity to visual changes are described below. Viewer groups with visual access to the Project site are divided into the categories of patrons of nearby businesses, motorists, pedestrians and bicyclists, and residents.

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Data Source: ESRI 2020

N

0 100
Feet

Project Area

KOPs

Figure 3.1-1
Key Observation Point Locations

Horizon
WATER and ENVIRONMENT

Freedom Bridge Removal Project

KOP 1: Looking south from San Tomas Aquino Creek trail towards the center of the Proposed Project site. This view represents the perspective of a pedestrian or bicyclist traveling on San Tomas Aquino Creek trail and shows San Tomas Aquino Creek, a parking lot, and foothills to the west.

KOP 2: This view shows the undeveloped, disturbed grassland area, metal fencing and telephone poles lining San Tomas Aquino Creek trail, and commercial buildings in the background. The view from KOP 2 can be characterized as urban in character marked by undeveloped land, fencing, and buildings

Figure 3.1-2. Views from Key Observation Points

KOP 3: An existing view of the eastern perimeter of the Proposed Project site from the perspective of a pedestrian or bicyclist traveling along San Tomas Aquino Creek trail. The view shows the Freedom Bridge, riparian vegetation along San Tomas Aquino Creek, and trees and commercial buildings in the background.

Figure 3.1-2. Views from Key Observation Points

Patrons of Nearby Businesses

The Project site is bordered by commercial buildings, including some restaurants, to the southwest. Patrons of these establishments likely visit on an infrequent and temporary basis, with limited expectations of the surrounding setting. Employees would have a higher sensitivity due to their frequency and duration of views; however, nearby buildings are partially screened by landscaping trees lining Freedom Circle and immediately east of San Tomas Aquino Creek trail. As such, the employees would have reduced viewer sensitivity.

Motorists

Motorists traveling on U.S. Route-101 and Freedom Circle would have temporary and limited views of the Project site. Motorists' views would be temporary and they would have limited expectations of the setting. Motorists in this area would most likely be patrons or employees of the surrounding businesses and the City of Santa Clara residents. Given the Proposed Project vicinity's developed and urban character, motorists would not be traveling this portion of U.S. Route-101 and Freedom Circle or the surrounding roadways for the purpose of scenic viewing.

Pedestrians and Bicyclists

Pedestrians and bicyclists using the San Tomas Aquino Creek Trail would have direct views of the Project site (KOPs 1-3). Pedestrians and bicyclists generally have a higher sensitivity in comparison to motorists due to their longer duration of views. However, given the existing conditions of the Proposed Project site and the Project vicinity's urban character, pedestrians and bicyclists would have a reduced sensitivity to visual change.

3.1.3 Discussion of Checklist Responses

a. Adverse effects on scenic vistas – No Impact

A scenic vista is generally considered a view of an area that has remarkable scenery or a natural or cultural resource that is indigenous to the area. No scenic vistas have been officially designated for the Proposed Project site or vicinity in the City's General Plan (City of Santa Clara 2010). The Proposed Project is surrounded by commercial uses to the east and west and transportation corridors to the north and south, while San Tomas Aquino Creek transects the Proposed Project area. Because of the site's urban location and flat topography, no views of the San Francisco Bay are present. As such, the Proposed Project would not have any adverse effects on scenic vistas. Therefore, **no impact** would occur.

b. Damage to scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway – No Impact

The Project site is not visible from any officially designated or eligible to be designated state scenic highway and does not include any scenic resources. The Proposed Project would be generally consistent with the urban visual character of the existing site and would not damage any scenic resources. Therefore, **no impact** would occur.

c. Conflict with applicable zoning and other regulations governing scenic quality? – Less than Significant

The Proposed Project includes removal of the Freedom Bridge, and associated post-removal site restoration, which is consistent with the land use for the City of Santa Clara (City of Santa Clara 2010). The Proposed Project is anticipated to occur over a total of 54 workdays.

Visual impacts associated with construction activities would be temporary and contained to the Project site. The property itself is flat and occupied by the Freedom Bridge, San Tomas Aquino Creek trail, and San Tomas Aquino Creek channel. The Proposed Project would be consistent with the existing visual character in terms of design and use.

Due to the flat topography of the Project site, the existing trail would be visible to nearby commercial properties; however, views of certain portions of the project site would be obscured by Project construction equipment. During Phase I, pedestrians and bicyclists would be excluded from the work area for approximately 10 days, but would be able to travel along the paved San Tomas Aquino Trail to the west of the bridge. During Phase II, the San Tomas Aquino Creek Trail would be closed between Agnew Road and Scott Boulevard for approximately 6 weeks, and pedestrians and bicyclists would be routed along the detour shown in Figure 2-3. This temporary disturbance of the natural setting would only occur for approximately 8 weeks and would not be a substantial adverse impact.

As described in Section 3.4, "Biological Resources," disturbance to the Project's levee slopes would be minimized, and disturbed portions of the levee slope would be restored. No other permanent structures are proposed that would alter the visual character of the area. Therefore, impacts to the existing visual character of the site would be **less than significant**.

d. New sources of substantial light or glare – No Impact

Existing sources of light and glare are present in the area surrounding the Project site, including streetlights located on roads (i.e., Freedom Circle) to the west of Project site as well as parking lot lighting from adjacent commercial and/or distribution uses. During the day, the most notable source of glare is from sunlight reflecting off passing or parked vehicles, as well as the rooftops and sides of the surrounding buildings.

Construction activities would occur during daylight hours only and temporary construction lighting would not be necessary. Construction of the Proposed Project would include equipment (i.e., trucks, crane, mini-excavator, and pavers) that could create some temporary glare in the immediate vicinity; however, it would not be substantial. The Proposed Project would not result in any new permanent sources of light or glare. As a result, **no impact** would occur**.**

3.2 AGRICULTURE AND FORESTRY RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non- agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.2.1 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal regulations are applicable to Agricultural and Forestry Resources in relation to the Proposed Project.

State Laws, Regulations, and Policies

Farmland Mapping and Monitoring Program

The Farmland Mapping and Monitoring Program (FMMP), administered by the California Department of Conservation (CDOC), produces maps and statistical data for use in analyzing impacts on California's agricultural resources. FMMP rates and classifies agricultural land according to soil quality, irrigation status, and other criteria. Important Farmland categories are

Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance (CDOC 2016).

California Land Conservation Act of 1965 (Williamson Act)

The California Land Conservation Act of 1965 (commonly referred to as the Williamson Act) allows local governments to enter into contracts with private landowners for the purpose of preventing conversion of agricultural land to non-agricultural uses (CDOC 2020). In exchange for restricting their property to agricultural or related open space use, landowners who enroll in Williamson Act contracts receive property tax assessments that are substantially lower than the market rate.

3.2.2 Environmental Setting

The Proposed Project is located in an urban area, and is not zoned or used for agricultural or forestry activities. The Proposed Project is located on land designated "urban and built-up land" (CDOC 2018). No land in the vicinity of the Proposed Project is mapped as important farmland or under a Williamson Act Contract (CDOC 2018, Santa Clara County 2020).

3.2.3 Discussion of Checklist Responses

a-e. Conflicts or loss of agricultural or forest lands—No Impact

Land within and adjacent to the Proposed Project is not zoned or used for agricultural or forestry activities. The Proposed Project would not alter land use designations or farmland/timberland classifications at either the local or state level. No Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, forest lands, or lands under a Williamson Act contract would be converted by, or conflict with, Proposed Project activities. As a result, **no impact** would occur.

3.3 AIR QUALITY

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
When 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:					
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?	☐	☐	☒	☐

3.3.1 Regulatory Setting

Federal and State Laws, Regulations, and Policies

The Clean Air Act is implemented by the U.S. Environmental Protection Agency (USEPA) and sets ambient air limits, the National Ambient Air Quality Standards (NAAQS), for six criteria pollutants: particulate matter of aerodynamic radius of 10 micrometers or less (PM10), particulate matter of aerodynamic radius of 2.5 micrometers or less (PM2.5), carbon monoxide (CO), nitrogen dioxide (NO_2), ground-level ozone, and lead. Of these criteria pollutants, particulate matter and ground-level ozone pose the greatest threats to human health.

The California Air Resources Board (CARB) sets standards for criteria pollutants in California that are more stringent than the NAAQS and include the following additional contaminants: visibility-reducing particles, hydrogen sulfide, sulfates, and vinyl chloride. The Proposed Project is located in the City of Santa Clara (City) in Santa Clara County (County) which is within the San Francisco Bay Area Air Basin (SFBAAB). The Bay Area Air Quality Management District (BAAQMD) manages air quality in the SFBAAB for attainment and permitting purposes.

Table 3.3-1 shows the current attainment status for the state and federal ambient air quality standards.

Table 3.3-1. Attainment Status of the State and Federal Ambient Air Quality Standards

Contaminant	Averaging Time	Concentration	State Standards Attainment Status1	Federal Standards Attainment Status2
Ozone	1-hour	0.09 ppm	N	See footnote 3
	8-hour	0.070 ppm	N	N
Carbon Monoxide	1-hour	20 ppm	A	
		35 ppm		A
	8-hour	9.0 ppm	A	A[4]
Nitrogen Dioxide	1-hour	0.18 ppm	A	
		0.100 ppm[6]		U
	Annual arithmetic mean	0.030 ppm	A	
		0.053 ppm		A
Sulfur Dioxide (SO_2)	1-hour	0.25 ppm	A	
		0.075 ppm		A
	24-hour	0.04 ppm	A	
		0.14 ppm		A
	Annual arithmetic mean	0.030 ppm		A
Particulate Matter (PM10)	24-hour	50 µg/m^3	N	
		150 µg/m^3		U
	Annual arithmetic mean	20 µg/m^3	N	
Fine Particulate Matter (PM2.5)	24-hour	35 µg/m^3		N (Moderate)[7]
	Annual arithmetic mean	12 µg/m^3	N	U/A
Sulfates	24-hour	25 µg/m^3	A	
Lead[8]	30-day average	1.5 µg/m^3	A	
Hydrogen Sulfide	1-hour	0.03 ppm	U	
Vinyl Chloride[8] (chloroethene)	24-hour	0.010 ppm	U	
Visibility Reducing Particles	8 hour (10:00 to 18:00 PST)	See footnote 5	U	

A – attainment
N – non-attainment
U – unclassified

ppm – parts per million
µg/m^3 – micrograms per cubic meter
PST – pacific standard time

Notes:

1. California standards for ozone, carbon monoxide, sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, suspended particulate matter - PM10, and visibility-reducing particles are values that are not to be exceeded. The standards for sulfates, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour, or 24-hour average (i.e., all standards except for lead and the PM10 annual standard), then some measurements may be excluded. In particular, measurements that are excluded include those that the CARB determines would occur less than once per year on average.
2. National standards shown are the "primary standards" designed to protect public health. National air quality standards are set by USEPA at levels determined to be protective of public health with an adequate margin of safety. National standards other than for ozone, particulates, and those based on annual averages are not to be exceeded more than once per year. The 1-hour ozone standard is attained if, during the most recent 3-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour ozone standard is attained when the 3-year average of the 4th highest daily concentrations is 0.075 ppm (75 parts per billion) or less. The 24-hour PM10 standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 $\mu g/m^3$. The 24-hour PM2.5 standard is attained when the 3-year average of 98th percentiles is less than 35 $\mu g/m^3$. Except for the national particulate standards, annual standards are met if the annual average falls below the standard at every site. The national annual particulate standard for PM10 is met if the 3-year average falls below the standard at every site. The annual PM2.5 standard is met by spatially averaging annual averages across officially designated clusters of sites and then determining if the 3-year average of these annual averages falls below the standard.
3. The national 1-hour ozone standard was revoked by USEPA on June 15, 2005. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 ppm to 0.070 ppm. An area meets the standard if the fourth-highest maximum daily 8-hour ozone concentration per year, averaged over three years, is equal to or less than 0.070 ppm. This table provides the attainment statuses for the 2015 standard of 0.070 ppm.
4. In April 1998, the Bay Area was redesignated to attainment for the national 8-hour carbon monoxide standard.
5. Statewide Visibility-Reducing Particle Standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.
6. To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average of nitrogen dioxide at each monitoring station within an area must not exceed 0.100 ppm (effective January 22, 2010).
7. On January 9, 2013, USEPA issued a final rule to determine that the Bay Area attains the 24-hour PM2.5 national standard. This USEPA rule suspends key state implementation plan (SIP) requirements as long as monitoring data continues to show that the Bay Area attains the standard. Despite this USEPA action, the Bay Area will continue to be designated as "non-attainment" for the national 24-hour PM2.5 standard until such time as the Air District submits a "redesignation request" and a "maintenance plan" to USEPA, and USEPA approves the proposed redesignation.
8. CARB has identified lead and vinyl chloride as toxic air contaminants with no threshold level of exposure below which there are no adverse health effects determined.

Source: CARB 2016, USEPA 2020, BAAQMD 2019, BAAQMD 2017a

USEPA and CARB regulate various stationary sources, area sources, and mobile sources. USEPA has regulations involving performance standards for specific sources that may release toxic air contaminants (TACs), known as hazardous air pollutants (HAPs) at the federal level. In addition, USEPA has regulations involving emission criteria for off-road sources such as emergency generators, construction equipment, and vehicles. CARB is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB also establishes passenger vehicle fuel specifications. Airborne Toxic Control Measures (ATCMs), including the following relevant measures, are implemented to address sources of TACs:

- ATCM for Diesel Particulate Matter from Portable Engines Rated at 50 Horsepower and Greater
- ATCM to Limit Diesel-Fueled Commercial Motor Vehicle Idling
- ATCM to Reduce Particulate Emissions from Diesel-Fueled Engines Standards for Non-vehicular Diesel Fuel
- ATCM for Stationary Compression Ignition Engines

Local Laws, Regulations, and Policies

Santa Clara General Plan

The City of Santa Clara General Plan guides air quality goal attainment and compliance for projects in the City of Santa Clara. Policies in the general plan related to air quality applicable to the Proposed Project include the following (City of Santa Clara 2010):

5.10.2-G1: Improved air quality in Santa Clara and the region.

5.10.2-P6: Require "Best Management Practices" for construction dust abatement.

Bay Area Air Quality Management District

BAAQMD is responsible for implementing air quality regulations on a regional level, including developing plans and control measures for stationary sources of air pollution to meet the NAAQS and CAAQS. BAAQMD also implements permit programs for the construction, modification, and operation of air pollution sources and enforces air pollution statutes and regulations governing stationary sources. With CARB oversight, BAAQMD also administers local regulations.

Regulations and Rules

The BAAQMD supports incentive programs to reduce criteria pollutant emissions within its jurisdiction, as well as establishing rules and permitting requirements. The Proposed Project may be subject to some or all of the following BAAQMD rules (BAAQMD 2020):

Regulation 2 Permits outlines the air permitting program, including exemptions and sources that require permitting.

Regulation 2, Rule 1: Permits General Requirements outlines permitting requirements and exemptions. This rule prohibits any source from causing a public nuisance, defines what equipment is subject to permitting/new source review requirements, and exempts portable stationary equipment (e.g., generators) from permitting if they comply with all applicable requirements of CARB's Portable Equipment Registration Program.

Regulation 6, Rule 1: Particulate Matter restricts emissions of PM.

BAAQMD Planning

BAAQMD has adopted several air quality improvement plans, as required by state and federal regulations, to ensure progress in attaining and maintaining the NAAQS and CAAQS. BAAQMD adopted the *Bay Area 2010 Clean Air Plan* (2010 CAP) (BAAQMD 2010) to improve Bay Area air quality and meet public health goals. More specifically, the control strategy described in the 2010 CAP is designed to reduce emissions and decrease ambient concentrations of harmful pollutants, safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, and reduce greenhouse gas (GHG) emissions to protect the climate (BAAQMD 2010). The 2017 CAP updates the 2010 CAP and provides a regional strategy to protect public health and protect the climate (BAAQMD 2017b). The 2017 CAP includes a wide range of control measures designed to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as PM, ozone (O_3), and TACs; reduce emissions of methane and other "super-GHGs" that are potent climate pollutants in the near term; and decrease emissions of carbon dioxide (CO_2) by reducing fossil fuel combustion.

BAAQMD CEQA Significance Thresholds

The CEQA Guidelines recommend that criteria established by the local air district should be relied upon to make determinations of significance regarding air quality impacts. BAAQMD has developed CEQA guidelines to assist local jurisdictions in evaluating potentially adverse impacts on air quality. The BAAQMD's guidelines for determining significance for air quality analyses (BAAQMD 2017b) are shown in **Table 3.3-2**. Projects below these mass emission thresholds do not have a significant impact on air quality.

Table 3.3-2. BAAQMD CEQA Thresholds of Significance for Criteria Air Pollutants

Pollutant	Construction-Related	Operational-Related	
Criteria Air Pollutants and Precursors	**Average Daily Emissions (pounds per day)**	**Average Daily Emissions (pounds per day)**	**Maximum Annual Emissions (tons per year)**
ROG	54	54	10
NOx	54	54	10
PM10	82 (Exhaust)	82	15
PM2.5	54 (Exhaust)	54	10
PM10/PM2.5 (Fugitive Dust)	Best Management Practices (BMPs)	None	

Notes:

ROG - reactive organic gases

NOx - oxides of nitrogen

PM10 - particulate matter of aerodynamic radius of 10 micrometers or less

PM2.5 - particulate matter of aerodynamic radius of 10 micrometers or less

Source: BAAQMD 2017b.

BAAQMD recommends implementation of BMPs to reduce fugitive dust emissions for all projects, which are included in the Proposed Project as BMP AQ-1. With implementation of the fugitive dust control measures, the BAAQMD considers fugitive dust emissions to be less than significant.

3.3.2 Environmental Setting

The Proposed Project site is located in the City of Santa Clara in northwestern Santa Clara County which is in the San Francisco Bay Area Air Basin (Basin). The Bay Area is California's second largest metropolitan region. The average temperature in the Santa Clara area is 58 degrees Fahrenheit (°F) and it receives an average of 15 inches of rain per year (World Climate 2020).

Santa Clara County, which contains the project site and is located entirely within the Basin, is designated as a federal and state non-attainment area for ozone and PM2.5, and state non-attainment for PM10. It is in attainment or unclassified for all other federal and state criteria air pollutants, as shown in Table 3.3-1. Major sources of air pollution in the Basin include on- and off-road vehicles, fuel combustion, and wood burning (BAAQMD 2017b).

The closest residences are the Santa Clara Square Apartments located approximately 1,125 feet (ft) southwest of the site on Augustine Drive. A Stanford Healthcare facility to the northwest of the site is located 900 feet from Freedom Bridge. Knowledge Preschool is 2,830 feet to the northeast and Little Glitters Day Care is 4,890 feet east, while the nearest elementary, middle, and high schools are located more than a mile away. US Highway 101 is located 950 feet south of the Proposed Project site.

3.3.3 Discussion of Checklist Responses

a. Conflict with or obstruct implementation of the applicable air quality plan – No Impact

A project is deemed inconsistent with air quality plans if it would result in population and/or employment growth that exceeds growth estimates included in the applicable air quality plan, which, in turn, would generate emissions not accounted for in the applicable air quality plan emissions budget. Therefore, projects need to be evaluated to determine whether they would generate population and employment growth and, if so, whether that growth would exceed the growth rates included in the relevant air quality plans. BAAQMD's Clean Air Plan 2017 addresses ozone, particulate matter, TACs, and GHGs. This plan focuses on protecting public health and protecting the climate. The Proposed Project involves the removal of an existing bridge and would not lead to a permanent increase in jobs or population growth. Therefore, the Proposed Project is consistent with air quality plans.

The Proposed Project would follow all federal, state, and local regulations related to sources of air pollutants and would follow the BAAQMD's regulations for fugitive dust. Therefore, because the Proposed Project would be consistent with the applicable general plan policies and would comply with all applicable regulations for sources of air pollutants, the Proposed Project would have **no impact** and would not obstruct or conflict with applicable air quality plans.

b. Cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area – Less than Significant

During construction of the Proposed Project, the combustion of fossil fuels for operation of fossil-fueled construction equipment, material hauling, and worker trips would result in construction-related criteria air pollutant emissions.

The nonattainment status of ozone, PM10, and PM2.5 in the SFBAAB is considered an existing significant cumulative impact. The BAAQMD has established significance thresholds that apply to cumulative impacts and a project's potential to considerably contribute to a cumulative impact. These significance thresholds were developed considering the region's air pollutant sources and anticipated population growth and related emissions in the air basin. A project that does not exceed these significance thresholds would not considerably contribute to a cumulative air quality impact. BAAQMD recommends implementation of BMPs to reduce fugitive dust emissions for all projects. With implementation of the fugitive dust control measures listed in BMP AQ-1 (Use Dust Control Measures), BAAQMD considers fugitive dust emissions to be less than significant.

The Proposed Project's construction-related emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 using information from the Project Description and are shown in **Table 3.3-3**. CalEEMod modeling results for the Proposed Project are provided in Appendix A.

Table 3.3-3. Criteria Pollutant Emissions during Construction

Year	Total Construction Emissions (tons)							
	ROG	**NOx**	**CO**	**SO_2**	**Fugitive PM10**	**Exhaust PM10**	**Fugitive PM2.5**	**Exhaust PM2.5**
2021	0.0254	0.249	0.27	0.0005	0.00347	0.0129	0.00076	0.0121
Average Daily Construction Emissions (pounds/day)								
Average Daily	0.94	9.25	10	0.02	0.13	0.48	0.03	0.45
Threshold	54	54	NA	NA	BMPs	82	BMPs	54
Above Threshold?	No	No	No	No	No		No	

Notes:

ROG = reactive organic gases
CO = carbon monoxide
NOx = oxides of nitrogen
PM10 = particulate matter 10 microns or less in diameter
PM2.5 = fine particulate matter 2.5 microns or less in diameter
SO2 = sulfur dioxide

Source: CalEEMod modeling results are provided in Appendix A.

The Proposed Project's criteria pollutant emissions from construction activities are lower than the BAAQMD's significance thresholds. Implementation of BMP AQ-1 as part of the Proposed Project would ensure that the Project meets the BAAQMD's fugitive dust requirements and any fugitive dust-related impacts would be less than significant. The Proposed Project would not involve any operational activities and would not induce any growth. Therefore, the Proposed Project's generated emissions would not be cumulatively considerable and would be **less than significant**.

c. Expose sensitive receptors to substantial pollutant concentrations – Less than Significant

During project construction, diesel particulate matter (DPM) and gasoline fuel combustion emissions that are classified as TACs could be emitted from construction equipment. Due to the variable nature of construction activity, the generation of TAC emissions in most cases would be temporary, especially considering the short amount of time such equipment is typically operating within an influential distance that would result in the exposure of sensitive receptors to substantial concentrations. Chronic and cancer-related health effects estimated over short periods are uncertain. Cancer potency factors are based on animal lifetime studies or worker studies with long-term exposure to the carcinogenic agent. There is considerable uncertainty in trying to evaluate the cancer risk from exposure that would last only a small fraction of a lifetime. Some studies indicate that the dose rate may change the potency of a given dose of a carcinogenic chemical. In other words, a dose delivered over a short period may have a different potency than the same dose delivered over a lifetime (California Office of Environmental Health Hazard Assessment [OEHHA] 2015). Furthermore, construction impacts are most severe adjacent to the construction area and decrease rapidly with increasing distance. Concentrations

of mobile-source DPM emissions are typically reduced by 70 percent at a distance of approximately 500 feet (CARB 2005).

There would be no operation-related emissions of TACs and subsequently no impacts on sensitive receptors.

Given the short duration of construction and the fact that TAC concentrations would quickly be reduced away from the active construction site, the Proposed Project's effect on nearby sensitive receptors due to construction-related air pollutant emissions would be **less than significant**.

d. Result in other emissions affecting a substantial number of people – Less than Significant

Activities associated with the Proposed Project would not generate permanent or long-term objectionable odors but could generate short-term, temporary odors related to the operation of gasoline- or diesel-powered equipment during construction activities. The Proposed Project would not include any operational activities.

The BAAQMD indicates that odor impacts could result from siting a new odor source near existing sensitive receptors. The Proposed Project would not include any land uses or operation types identified by BAAQMD as most likely to cause odors (e.g., landfills, wastewater treatment plants) (BAAQMD 2017a). Odors associated with gasoline- or diesel-powered equipment during construction activities would not be significant because they would occur for brief periods at the project site. Therefore, the potential for the Proposed Project to create objectionable odors that would affect a substantial number of people would be **less than significant**.

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3.4 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 CDFW or USFWS?	☐	☒	☐	☐
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the DFG or USFWS?	☐	☐	☒	☐
c.	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state HCP?	☐	☐	☐	☒

3.4.1 Regulatory Setting

Federal Laws, Regulations, and Policies

Endangered Species Act

The Endangered Species Act (ESA) (16 U.S. Code [USC] Section 1531 et seq.; 50 Code of Federal Regulations [CFR] Parts 17 and 222) provides for conservation of species that are endangered or threatened throughout all or a substantial portion of their range, as well as protection of the

habitats on which they depend. The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) share responsibility for implementing the ESA. In general, USFWS manages terrestrial and freshwater species, whereas NMFS manages marine and anadromous species.

Section 9 of the ESA and its implementing regulations prohibit the "take" of any fish or wildlife species listed under the ESA as endangered or threatened, unless otherwise authorized by federal regulations. The ESA defines the term "take" to mean "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" (16 USC Section 1532). Section 7 of the ESA (16 USC Section 1531 et seq.) outlines the procedures for federal interagency cooperation to conserve federally listed species and designated critical habitats. Section 10(a)(1)(B) of the ESA provides a process by which nonfederal entities may obtain an incidental take permit from USFWS or NMFS for otherwise lawful activities that incidentally may result in "take" of endangered or threatened species, subject to specific conditions. A habitat conservation plan (HCP) must accompany an application for an incidental take permit.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 USC Sections 703–712; 50 CFR Subchapter B) makes it unlawful to pursue, hunt, take, capture, kill, or possess any migratory birds, or part, nests, or eggs of such migratory birds, that are listed in wildlife protection treaties between the United States and Canada, Mexico, Japan, and Russia. The MBTA applies to almost all avian species that are native to California. The MBTA prohibits the take of such species, including the removal of nests, eggs, and feathers. It requires that all federal agencies consult with USFWS on activities or proposed activities authorized, funded, or undertaken by that agency that may adversely affect migratory birds.

The Migratory Bird Treaty Reform Act amends the MBTA so that nonnative birds or birds that have been introduced by humans to the United States or its territories are excluded from protection under the MBTA.

Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, directs each federal agency taking actions that have or may have adverse impacts on migratory bird populations to work with USFWS to develop a memorandum of understanding to promote the conservation of migratory bird populations.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act prohibits the taking or possession of and commerce in bald and golden eagles, with limited exceptions (16 USC 668). Under the Bald and Golden Eagle Protection Act, it is a violation to "…take, possess, sell, purchase, barter, offer to sell, transport, export or import, at any time or in any manner, any bald eagle commonly known as the American eagle, or golden eagle, alive or dead, or any part, nest or egg, thereof…". "Take" is defined to include pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, and disturb. "Disturb" is further defined in 50 CFR Part 22.3 as "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available (1) injury to an eagle, (2) a decrease in its productivity, by substantially

interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

Clean Water Act

Section 404 of the CWA regulates the discharge of dredged and fill materials into waters of the U.S., which include all navigable waters, their tributaries, and some isolated waters, as well as some wetlands adjacent to the aforementioned waters (33 CFR Section 328.3). Areas typically not considered to be jurisdictional waters include non-tidal drainage and irrigation ditches excavated on dry land, artificially irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial waterbodies such as swimming pools, vernal pools, and water-filled depressions (33 CFR Part 328). Areas meeting the regulatory definition of waters of the U.S. are subject to the jurisdiction of U.S. Army Corps of Engineers (USACE) under the provisions of CWA Section 404. Activities involving placement of fill into jurisdictional waters of the U.S. are regulated by USACE through permit requirements. No USACE permit is effective in the absence of state water quality certification pursuant to Section 401 of CWA.

Section 401 of the CWA requires an evaluation of water quality when a proposed activity requiring a federal license or permit could result in a discharge to waters of the U.S. In California, the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCBs) issue water quality certifications. Each RWQCB is responsible for implementing Section 401 in compliance with the CWA and its water quality control plan (also known as a Basin Plan). Applicants for a federal license or permit to conduct activities that may result in the discharge to waters of the U.S. (including wetlands or vernal pools) must also obtain a Section 401 water quality certification to ensure that any such discharge will comply with the applicable provisions of the CWA.

State Laws, Regulations, and Policies

California Fish and Game Code

The California Fish and Game Code includes various statutes that protect biological resources, including the Native Plant Protection Act of 1977 (NPPA) and the California Endangered Species Act (CESA) (California Fish and Game Code Sections 2050–2098). The NPPA (California Fish and Game Code Section 1900-1913) authorizes the Fish and Game Commission to designate plants as endangered or rare and prohibits take of any such plants, except as authorized in limited circumstances.

CESA prohibits state agencies from approving a project that would jeopardize the continued existence of a species listed under CESA as endangered or threatened. Section 2080 of the California Fish and Game Code prohibits the take of any species that is state listed as endangered or threatened, or designated as a candidate for such listing. California Department of Fish and Wildlife (CDFW) may issue an incidental take permit authorizing the take of listed and candidate species if that take is incidental to an otherwise lawful activity, subject to specified conditions.

California Fish and Game Code Sections 3503 and 3513 protect native and migratory birds, including their nests and eggs, from all forms of take. In addition, Section 3511, Section 4700, Section 5050, and Section 5515 identify species that are fully protected from all forms of take.

Section 3511 lists fully protected birds, Section 5515 lists fully protected fish, Section 4700 lists fully protected mammals, and Section 5050 lists fully protected amphibians.

CDFW regulates activities that will interfere with the natural flow of, or substantially alter, the channel, bed, or bank of a lake, river, or stream. Section 1602 of the California Fish and Game Code requires that CDFW be notified of lake or streambed alteration activities. If CDFW subsequently determines that such an activity might adversely affect an existing fish and wildlife resource, it has the authority to issue a streambed alteration agreement, including requirements to protect biological resources and water quality.

Local Laws, Regulations and Policies

The Santa Clara General Plan guides hazards and hazardous materials in the city of Santa Clara. Goals and policies in the general plan related to biological resources relevant to the Proposed Project include the following (City of Santa Clara 2010):

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

3.4.2 Environmental Setting

Biologist Robin Hunter of Horizon conducted a reconnaissance survey of the Project area (Figure 2-1) on July 21, 2019. The purpose of the survey was to assess existing biotic habitats and general wildlife communities in the Project area and to assess the site for its potential to support special-status species and their habitats.

For the purposes of this assessment, special-status species are those that are listed as rare, species of concern, candidate, threatened, or endangered by USFWS or CDFW. Methods to assess the potential for special-status species to be affected by the Proposed Project included a site-specific habitat assessment, as well as review of existing documentation for biological resources near the Proposed Project area. Assessing the effects on special-status species relies on an evaluation of the likelihood of encountering them in the Project area based on habitat, distance to known occurrences, and landscape features that contribute to or interfere with terrestrial species' movement and dispersal potential and within foraging and migratory habits. **Figure 3.4-1** and **Figure 3.4-2** show California Natural Diversity Database (CNDDB) occurrences of special-status species within a 5-mile radius of the Project area.

The following resources were consulted to identify special-status species with the potential to occur in the vicinity of the Project:

- USFWS Information for Planning and Conservation Trust Resources Report for the Project area (USFWS 2020) (See Appendix B);

- A California Natural Diversity Database (CDFW 2020) query of the nine U.S. Geological Survey (USGS) 7.5-minute quadrangles containing or surrounding the Project area (See Appendix B).

A complete list of special-status species known to occur in the vicinity of the Project area and their potential to occur in the Project is provided below in **Table 3.4-1**.

Habitats

Habitats present in the Project area include Riverine and Ruderal/Developed and are described below.

Riverine

Riverine habitat in the Project area includes the open water of the San Tomas Aquino Creek. This reach of San Tomas Aquino Creek consists of a wide earthen trapezoidal channel confined by levees on both banks with maintenance roads at the top of each bank. Riverine habitat extends to the ordinary high water mark of the creek, which was determined based on drift deposits observed on the bank and change in vegetation type.

The channel bed is generally comprised of sand and gravel with some small alternate bar deposits. Vegetation present below the ordinary high water mark of the creek consists of a mix of herbaceous species, with floating water primrose (*Ludwigia peploides*), water speedwell (*Veronica anagallis-aquatica*), water cress (*Nasturtium officinale*), and water smartweed (*Persicaria amphibia*) being most common. Other observed species include white sweetclover (*Melilotus albus*), rough cocklebur (*Xanthium strumarium*), cattail (*Typha* sp.), and tall Cyprus (*Cyperus eragrostis*). Water was flowing in the creek at the time of the survey.

San Tomas Aquino Creek is not known to currently support anadromous steelhead (*Oncorhynchus mykiss*) due to an impassible barrier at the confluence with Saratoga Creek, although resident *O. mykiss* (rainbow trout) have been detected in the watershed (Leidy 2005). The *O. mykiss* detected by Leidy were within the Saratoga sub watershed, upstream of the impassable barrier (Leidy 2005). However, stray steelhead could potentially occur in the creek. Western pond turtle (*Emys marmorata*) may potentially use riverine habitat in the project area. Other wildlife that may use this habitat includes bullfrog (*Lithobates catesbeianus*) and wading birds such as egrets.

Ruderal/Developed

The creek banks are dominated by upland, weedy species including wild oat (*Avena fatua*), wild radish (*Raphanus sativus*), fennel (*Foeniculum vulgare*), and wild lettuce (*Lactuca serriola*). No ground squirrel activity was observed during the survey. Valley Water conducts vegetation management activities along the creek banks and maintenance roads, which results in frequent disturbance to the vegetation community in these areas. The maintenance roads on each side of the channel (paved on the left bank and gravel on the right bank) are developed habitat, as is the bridge itself and the parking lot and parking structure located to the east of the bridge. Trees are present along the fence line to the east of the bridge, including redwood (*Sequoia sempervirens)*, coast live oak (*Quercus agrifolia*), and crepe myrtle (*Lagerstroemia* sp.).

An approximately 13-acre parcel is located to the west of the bridge. This parcel was fenced in and not accessible on foot during the reconnaissance survey. The site was surveyed via binoculars, and appears to be dominated by ruderal vegetation similar to that found on the creek banks. A road also runs through the site.

Two nest structures (likely nests of black phoebe [*Sayornis nigricans*]) were observed on the upstream face of the bridge. No birds were observed entering or exiting the nest structures during the reconnaissance survey. No evidence of bat use of the bridge was observed. The bridge structure does not appear to provide crevices suitable for bat roosting.

The ruderal/developed habitat type provides variable habitat value for wildlife in the Proposed Project area. Frequent disturbance from human activity occurs in this area, limiting its habitat value. However, wildlife species adapted for more urban environments, such as common raven (*Corvus corax*), sparrows, house mice (*Mus musculus*), may inhabit and/or forage in ruderal/developed land cover in the Project area.

Special-Status Species

For the purposes of this assessment, special-status species are those that are listed as California Rare Plant Rank (CRPR) 1A, 1B, 2A, or 2B species; rare; species of concern; candidate threatened or endangered; and threatened or endangered by the USFWS, NMFS, or CDFW[1]. Special-status plant and animal species with the potential to occur in the Project area were identified through a review of the following resources:

- USFWS Information for Planning and Consultation (IPaC) Species List (USFWS 2020, Appendix B)
- California Natural Diversity Database (CNDDB) query for the Milpitas 7.5-minute U.S. Geological Survey (USGS) quadrangle and the eight quadrangles surrounding it (CDFW 2020, Appendix B)

Figure 3.4-1 and Figure 3.4-2**,** respectively, show CNDDB occurrences of special-status plant and animal species within 5 miles of the Proposed Project. Appendix B lists the species known to occur within the vicinity of the Proposed Project area. The potential for special-status species to occur in areas affected by Proposed Project activities was evaluated according to the following criteria:

- **None:** the Proposed Project area contains a complete lack of suitable habitat, the local range for the species is restricted, and/or the species is extirpated in this region.
- **Not expected**: suitable habitat or key habitat elements might be present but might be of poor quality or isolated from the nearest extant occurrences, and/or the species is not known to occur in the Proposed Project area.

[1] Includes California Rare Plant Rank List 1 and 2 species.

- **Possible**: presence of suitable habitat or key habitat elements in the Proposed Project area that potentially support the species.

- **Present**: the species was either observed directly or its presence was confirmed by field investigations or in previous studies in the Proposed Project area.

Special-status species and their potential to occur in the Proposed Project area are listed in Table 3.4-1. No special-status plants were found to have potential to occur in the Proposed Project area. Special-status wildlife species that may occur in the Proposed Project area includes western pond turtle, although no western pond turtles were observed during the survey. Although no known run of steelhead is present in San Tomas Aquino Creek, stray steelhead could potentially occur in the creek.

Table 3.4-1. Special-status Species and the Potential to Occur in the Proposed Project Area.

Scientific Name Common Name	Listing status*	Habitat	Potential to Occur in the Proposed Project area
Plants			
Astragalus tener var. *tener* alkali milk-vetch	- / - / 1B.2	Alkali playa, valley and foothill grassland, vernal pools. Low ground, alkali flats, and flooded lands; in annual grassland or in playas or vernal pools. 0-170 meters (m).	**None.** Suitable habitat is not present in the Proposed Project area.
Atriplex depressa brittlescale	- / - / 1B.2	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland, vernal pools. Usually in alkali scalds or alkaline clay in meadows or annual grassland; rarely associated with riparian, marshes, or vernal pools. 1-325 m.	**None.** Suitable habitat is not present in the Proposed Project area.
Atriplex minuscula lesser saltscale	- / - / 1B.1	Chenopod scrub, playas, valley and foothill grassland. In alkali sink and grassland in sandy, alkaline soils. 0-225 m.	**None.** Suitable habitat is not present in the Proposed Project area.
Balsamorhiza macrolepis big-scale balsamroot	- / - / 1B.2	Chaparral, valley and foothill grassland, cismontane woodland. Sometimes on serpentine. 35-1465 m.	**None.** Suitable habitat is not present in the Proposed Project area.
Campanula exigua chaparral harebell	- / - / 1B.2	Chaparral. Rocky sites, usually on serpentine in chaparral. 90-1375 m.	**None.** The Proposed Project area is not within the elevation range for this species.
Centromadia parryi ssp. *congdonii* Congdon's tarplant	- / - / 1B.1	Valley and foothill grassland. Alkaline soils, sometimes described as heavy white clay. 0-245 m.	**None.** Suitable habitat is not present in the Proposed Project area.
Chloropyron maritimum ssp. *palustre* Point Reyes salty bird's-beak	- / - / 1B.2	Coastal salt marsh. Usually in coastal salt marsh with *Salicornia, Distichlis, Jaumea, Spartina*, etc. 0-115 m.	**None.** Suitable habitat is not present in the Proposed Project area.
Chorizanthe robusta var. *robusta* robust spineflower	FE / - / 1B.1	Cismontane woodland, coastal dunes, coastal scrub, chaparral. Sandy terraces and bluffs or in loose sand. 5-245 m.	**None.** Suitable habitat is not present in the Proposed Project area.

Scientific Name Common Name	Listing status*	Habitat	Potential to Occur in the Proposed Project area
Cirsium fontinale var. *campylon* Mt. Hamilton fountain thistle	- / - / 1B.2	Cismontane woodland, chaparral, valley and foothill grassland. In seasonal and perennial drainages on serpentine. 75-890 m.	**None.** The Proposed Project area is not within the elevation range for this species.
Clarkia concinna ssp. *automixa* Santa Clara red ribbons	- / - / 4.3	Cismontane woodland, chaparral. On slopes and near drainages. 90-1500 m.	**None.** The Proposed Project area is not within the elevation range for this species.
Collinsia multicolor San Francisco collinsia	- / - / 1B.2	Closed-cone coniferous forest, coastal scrub. On decomposed shale (mudstone) mixed with humus; sometimes on serpentine. 10-275 m.	**None.** Suitable habitat is not present in the Proposed Project area.
Delphinium californicum ssp. *interius* Hospital Canyon larkspur	- / - / 1B.2	Cismontane woodland, chaparral, coastal scrub. In wet, boggy meadows, openings in chaparral and in canyons. 195-1095 m.	**None.** The Proposed Project area is not within the elevation range for this species.
Dirca occidentalis western leatherwood	- / - / 1B.2	Broadleafed upland forest, chaparral, closed-cone coniferous forest, cismontane woodland, north coast coniferous forest, riparian forest, riparian woodland. On brushy slopes, mesic sites; mostly in mixed evergreen & foothill woodland communities. 20-640 m.	**None.** Suitable habitat is not present in the Proposed Project area.
Dudleya abramsii ssp. *setchellii* Santa Clara Valley dudleya	FE / - / 1B.1	Valley and foothill grassland, cismontane woodland. On rocky serpentine outcrops and on rocks within grassland or woodland. 60-455 m.	**None.** The Proposed Project area is not within the elevation range for this species.
Eryngium aristulatum var. *hooveri* Hoover's button-celery	- / - / 1B.1	Vernal pools. Alkaline depressions, vernal pools, roadside ditches and other wet places near the coast. 1-50 m.	**None.** Suitable habitat is not present in the Proposed Project area.
Extriplex joaquinana San Joaquin spearscale	- / - / 1B.2	Chenopod scrub, alkali meadow, playas, valley and foothill grassland. In seasonal alkali wetlands or alkali sink scrub with *Distichlis spicata, Frankenia*, etc. 0-800 m.	**None.** Suitable habitat is not present in the Proposed Project area.

Scientific Name Common Name	Listing status*	Habitat	Potential to Occur in the Proposed Project area
Fritillaria liliacea fragrant fritillary	- / - / 1B.2	Coastal scrub, valley and foothill grassland, coastal prairie, cismontane woodland. Often on serpentine; various soils reported though usually on clay, in grassland. 3-385 m.	**None.** Suitable habitat is not present in the Proposed Project area.
Hoita strobilina Loma Prieta hoita	- / - / 1B.1	Chaparral, cismontane woodland, riparian woodland. Serpentine; mesic sites. 60-975 m.	**None.** The Proposed Project area is not within the elevation range for this species.
Lasthenia conjugens Contra Costa goldfields	FE / - / 1B.1	Valley and foothill grassland, vernal pools, alkaline playas, cismontane woodland. Vernal pools, swales, low depressions, in open grassy areas. 1-450 m.	**None.** Suitable habitat is not present in the Proposed Project area.
Lessingia micradenia var. *glabrata* smooth lessingia	- / - / 1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Serpentine; often on roadsides. 90-490 m.	**None.** The Proposed Project area is not within the elevation range for this species.
Malacothamnus arcuatus arcuate bush-mallow	- / - / 1B.2	Chaparral, cismontane woodland. Gravelly alluvium. 1-735 m.	**None.** Suitable habitat is not present in the Proposed Project area.
Malacothamnus hallii Hall's bush-mallow	- / - / 1B.2	Chaparral, coastal scrub. Some populations on serpentine. 10-735 m.	**None.** Suitable habitat is not present in the Proposed Project area.
Monolopia gracilens woodland woollythreads	- / - / 1B.2	Chaparral, valley and foothill grassland, cismontane woodland, broadleafed upland forest, North Coast coniferous forest. Grassy sites, in openings; sandy to rocky soils. Often seen on serpentine after burns, but may have only weak affinity to serpentine. 120-975 m.	**None.** The Proposed Project area is not within the elevation range for this species.
Navarretia prostrata prostrate vernal pool navarretia	- / - / 1B.1	Coastal scrub, valley and foothill grassland, vernal pools, meadows and seeps. Alkaline soils in grassland, or in vernal pools. Mesic, alkaline sites. 3-1235 m.	**None.** Suitable habitat is not present in the Proposed Project area.
Plagiobothrys glaber hairless popcornflower	- / - / 1A	Meadows and seeps, marshes and swamps. Coastal salt marshes and alkaline meadows. 5-125 m.	**None.** Suitable habitat is not present in the Proposed Project area.

Scientific Name Common Name	Listing status*	Habitat	Potential to Occur in the Proposed Project area
Puccinellia simplex California alkali grass	- / - / 1B.2	Meadows and seeps, chenopod scrub, valley and foothill grasslands, vernal pools. Alkaline, vernally mesic. Sinks, flats, and lake margins. 1-915 m.	**None.** Suitable habitat is not present in the Proposed Project area.
Senecio aphanactis chaparral ragwort	- / - / 2B.2	Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. 20-855 m.	**None.** Suitable habitat is not present in the Proposed Project area.
Sidalcea malachroides maple-leaved checkerbloom	- / - / 4.2	Broadleafed upland forest, coastal prairie, coastal scrub, north coast coniferous forest, riparian forest. Woodlands and clearings near coast; often in disturbed areas. 4-765 m.	**None.** Suitable habitat is not present in the Proposed Project area.
Spergularia macrotheca var. *longistyla* long-styled sand-spurrey	- / - / 1B.2	Marshes and swamps, meadows and seeps. Alkaline. 0-220 m.	**None.** Suitable habitat is not present in the Proposed Project area.
Streptanthus albidus ssp. *albidus* Metcalf Canyon jewelflower	FE / - / 1B.1	Valley and foothill grassland. Relatively open areas in dry grassy meadows on serpentine soils; also on serpentine balds. 50-275 m.	**None.** The Proposed Project area is not within the elevation range for this species.
Streptanthus albidus ssp. *peramoenus* most beautiful jewelflower	- / - / 1B.2	Chaparral, valley and foothill grassland, cismontane woodland. Serpentine outcrops, on ridges and slopes. 90-1040 m.	**None.** The Proposed Project area is not within the elevation range for this species.
Stuckenia filiformis ssp. *alpina* slender-leaved pondweed	- / - / 2B.2	Marshes and swamps. Shallow, clear water of lakes and drainage channels. 5-2325 m.	**Not anticipated.** Marginally suitable habitat is present in the Proposed Project area.
Suaeda californica California seablite	FE / - / 1B.1	Marshes and swamps. Margins of coastal salt marshes. 0-5 m.	**None.** Suitable habitat is not present in the Proposed Project area.

Scientific Name Common Name	Listing status*	Habitat	Potential to Occur in the Proposed Project area
Trifolium hydrophilum saline clover	- / - / 1B.2	Marshes and swamps, valley and foothill grassland, vernal pools. Mesic, alkaline sites. 1-335 m.	**None.** Suitable habitat is not present in the Proposed Project area.
Invertebrates			
Lepidurus packardi vernal pool tadpole shrimp	FE/-	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass-bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	**None.** Suitable habitat is not present in the Proposed Project area.
Bombus crotchii Crotch bumble bee	-/SC	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include *Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia,* and *Eriogonum*.	**None.** The Proposed Project area is within the pre-2012 extent of occurrence of this species, however it is not within the mapped 2002-2012 extent of occurrence (Xerces Society et al. 2018).
Bombus occidentalis western bumble bee	-/SC	Once common & widespread, species has declined precipitously from central CA to southern B.C., perhaps from disease. Western bumble bee populations in California are currently largely restricted to high elevation sites in the Sierra Nevada and a few records on the northern California coast (Xerces Society et al. 2018).	**None.** The Proposed Project area is within the pre-2012 extent of occurrence of this species, however it is not within the mapped 2002-2012 extent of occurrence (Xerces Society et al. 2018).
Branchinecta conservatio Conservancy fairy shrimp	FE/-	Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools. Inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June.	**None.** Suitable habitat is not present in the Proposed Project area.

Scientific Name Common Name	Listing status*	Habitat	Potential to Occur in the Proposed Project area
Euphydryas editha bayensis Bay checkerspot butterfly	FT/-	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. *Plantago erecta* is the primary host plant; *Orthocarpus densiflorus* & *O. purpurscens* are the secondary host plants.	**None.** Suitable habitat is not present in the Proposed Project area.
Callophrys mossii bayensis San Bruno elfin butterfly	FE/-	Coastal, mountainous areas with grassy ground cover, mainly in the vicinity of San Bruno Mountain, San Mateo County. Colonies are located on steep, north-facing slopes within the fog belt. Larval host plant is *Sedum spathulifolium*.	**None.** Suitable habitat is not present in the Proposed Project area.
Fish			
Oncorhynchus mykiss irideus pop. 8 steelhead - central California coast DPS	FT/-	From Russian River, south to Soquel Creek and to, but not including, Pajaro River. Also San Francisco and San Pablo Bay basins.	**Not anticipated.** San Tomas Aquino Creek is not known to currently support anadromous steelhead due to an impassible barrier at the confluence with Saratoga Creek, although resident *O. mykiss* (rainbow trout) have been detected in the watershed (Leidy 2005)." The *O. mykiss* detected by Leidy were within the Saratoga sub watershed, upstream of the impassable barrier (Leidy 2005).
Spirinchus thaleichthys longfin smelt	FC/ST	Euryhaline, nektonic & anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 ppt, but can be found in completely freshwater to almost pure seawater.	**None.** Suitable habitat is not present in the Proposed Project area.
Hypomesus transpacificus Delta smelt	FT/SE	Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay. Seldom found at salinities > 10 ppt. Most often at salinities < 2ppt.	**None.** The Project is outside of the range of this species.

Scientific Name Common Name	Listing status*	Habitat	Potential to Occur in the Proposed Project area
Amphibians			
Ambystoma californiense California tiger salamander	FT/ST	Central Valley DPS federally listed as threatened. Santa Barbara and Sonoma counties DPS federally listed as endangered. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	**None.** Suitable habitat is not present in the Proposed Project area.
Aneides flavipunctatus niger Santa Cruz black salamander	-/SSC	Mixed deciduous and coniferous woodlands and coastal grasslands in San Mateo, Santa Cruz, and Santa Clara counties. Adults found under rocks, talus, and damp woody debris.	**None.** Suitable habitat is not present in the Proposed Project area.
Dicamptodon ensatus California giant salamander	-/SSC	Known from wet coastal forests near streams and seeps from Mendocino County south to Monterey County, and east to Napa County. Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds. Adults known from wet forests under rocks and logs near streams and lakes.	**None.** Suitable habitat is not present in the Proposed Project area.
Rana boylii foothill yellow-legged frog	-/Candidate ST, SSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	**None.** Suitable habitat is not present in the Proposed Project area.
Rana draytonii California red-legged frog	FT/SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	**None.** Suitable habitat is not present in the Proposed Project area.
Reptiles			
Anniella pulchra northern California legless lizard	-/SSC	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content.	**None.** Suitable habitat is not present in the Proposed Project area.

Scientific Name Common Name	Listing status*	Habitat	Potential to Occur in the Proposed Project area
Emys marmorata western pond turtle	-/SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	**Possible.** Suitable habitat is present in the Proposed Project area.
Masticophis lateralis euryxanthus Alameda whipsnake	FT/ST	Typically found in chaparral and scrub habitats but will also use adjacent grassland, oak savanna and woodland habitats. Mostly south-facing slopes and ravines, with rock outcrops, deep crevices or abundant rodent burrows, where shrubs form a vegetative mosaic with oak trees and grasses.	**None.** Suitable habitat is not present in the Proposed Project area.
Birds			
Agelaius tricolor tricolored blackbird	-/ST, SSC	Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	**None.** Suitable habitat is not present in the Proposed Project area.
Aquila chrysaetos golden eagle	-/SFP	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	**None.** Suitable habitat is not present in the Proposed Project area.
Athene cunicularia burrowing owl	-/SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Not expected. No ground squirrel activity was observed in the Proposed Project area. The adjacent parcel is anticipated to be too small to support breeding burrowing owls.
Buteo swainsoni Swainson's hawk	-/ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	**None.** Suitable habitat is not present in the Proposed Project area.

Scientific Name Common Name	Listing status*	Habitat	Potential to Occur in the Proposed Project area
Charadrius alexandrinus nivosus western snowy plover	FT/SSC	Sandy beaches, salt pond levees & shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	**None.** Suitable habitat is not present in the Proposed Project area.
Circus hudsonius northern harrier	-/SSC	Coastal salt & freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	**None.** Suitable habitat is not present in the Proposed Project area.
Coccyzus americanus occidentalis western yellow-billed cuckoo	FT/SE	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	**None.** Suitable habitat is not present in the Proposed Project area.
Coturnicops noveboracensis yellow rail	-/SSC	Summer resident in eastern Sierra Nevada in Mono County. Freshwater marshlands.	**None.** Suitable habitat is not present in the Proposed Project area.
Elanus leucurus white-tailed kite	-/SFP	Rolling foothills and valley margins with scattered oaks & river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	**None.** Suitable habitat is not present in the Proposed Project area.
Falco peregrinus anatum American peregrine falcon	FD/SD, SFP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	**Not expected.** Marginally suitable habitat is present.
Geothlypis trichas sinuosa saltmarsh common yellowthroat	-/SSC	Resident of the San Francisco Bay region, in fresh and salt water marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	**None.** Suitable habitat is not present in the Proposed Project area.
Laterallus jamaicensis coturniculus California black rail	-/ST, SFP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	**None.** Suitable habitat is not present in the Proposed Project area.

Scientific Name Common Name	Listing status*	Habitat	Potential to Occur in the Proposed Project area
Melospiza melodia pusillula Alameda song sparrow	-/SSC	Resident of salt marshes bordering south arm of San Francisco Bay. Inhabits Salicornia marshes; nests low in *Grindelia* bushes (high enough to escape high tides) and in Salicornia.	**None.** Suitable habitat is not present in the Proposed Project area.
Rallus obsoletus California Ridgway's rail	FE/SE, SFP	Salt water and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed, but feeds away from cover on invertebrates from mud-bottomed sloughs.	**None.** Suitable habitat is not present in the Proposed Project area.
Riparia bank swallow	-/ST	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	**None.** Suitable habitat is not present in the Proposed Project area.
Rynchops niger black skimmer	-/SSC	Nests on gravel bars, low islets, and sandy beaches, in unvegetated sites. Nesting colonies usually less than 200 pairs.	**None.** Suitable habitat is not present in the Proposed Project area.
Mammals			
Antrozous pallidus pallid bat	-/SSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Absent as Breeder.** Suitable foraging habitat is present, but no suitable breeding or roosting habitat is present.
Corynorhinus townsendii Townsend's big-eared bat	-/SSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	**Absent as Breeder.** Suitable foraging habitat is present, but no suitable breeding or roosting habitat is present.
Neotoma fuscipes annectens San Francisco dusky-footed woodrat	-/SSC	Forest habitats of moderate canopy & moderate to dense understory. May prefer chaparral & redwood habitats. Constructs nests of shredded grass, leaves & other material. May be limited by availability of nest-building materials.	**None.** Suitable habitat is not present in the Proposed Project area.

Scientific Name Common Name	Listing status*	Habitat	Potential to Occur in the Proposed Project area
Reithrodontomys raviventris salt-marsh harvest mouse	FE/SE	Only in the saline emergent wetlands of San Francisco Bay and its tributaries. Pickleweed is primary habitat, but may occur in other marsh vegetation types and in adjacent upland areas. Does not burrow; builds loosely organized nests. Requires higher areas for flood escape.	**None.** Suitable habitat is not present in the Proposed Project area.
Sorex vagrans halicoetes salt-marsh wandering shrew	-/SSC	Salt marshes of the south arm of San Francisco Bay. Medium high marsh 6-8 ft above sea level where abundant driftwood is scattered among *Salicornia*.	**None.** Suitable habitat is not present in the Proposed Project area.
Vulpes macrotis mutica San Joaquin kit fox	FE/ST	Annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base.	**None.** Suitable habitat is not present in the Proposed Project area.

* List of Abbreviations for Species Status follow below:

FE = Federal endangered

FT = Federal threatened

FC = Federal candidate

SE = State endangered

ST = State threatened

SC = State candidate

SSC = State Species of Special Concern

SFP = State fully protected

California Rare Plant Rank (CRPR) 1B = Plants rare, threatened, or endangered in California and elsewhere

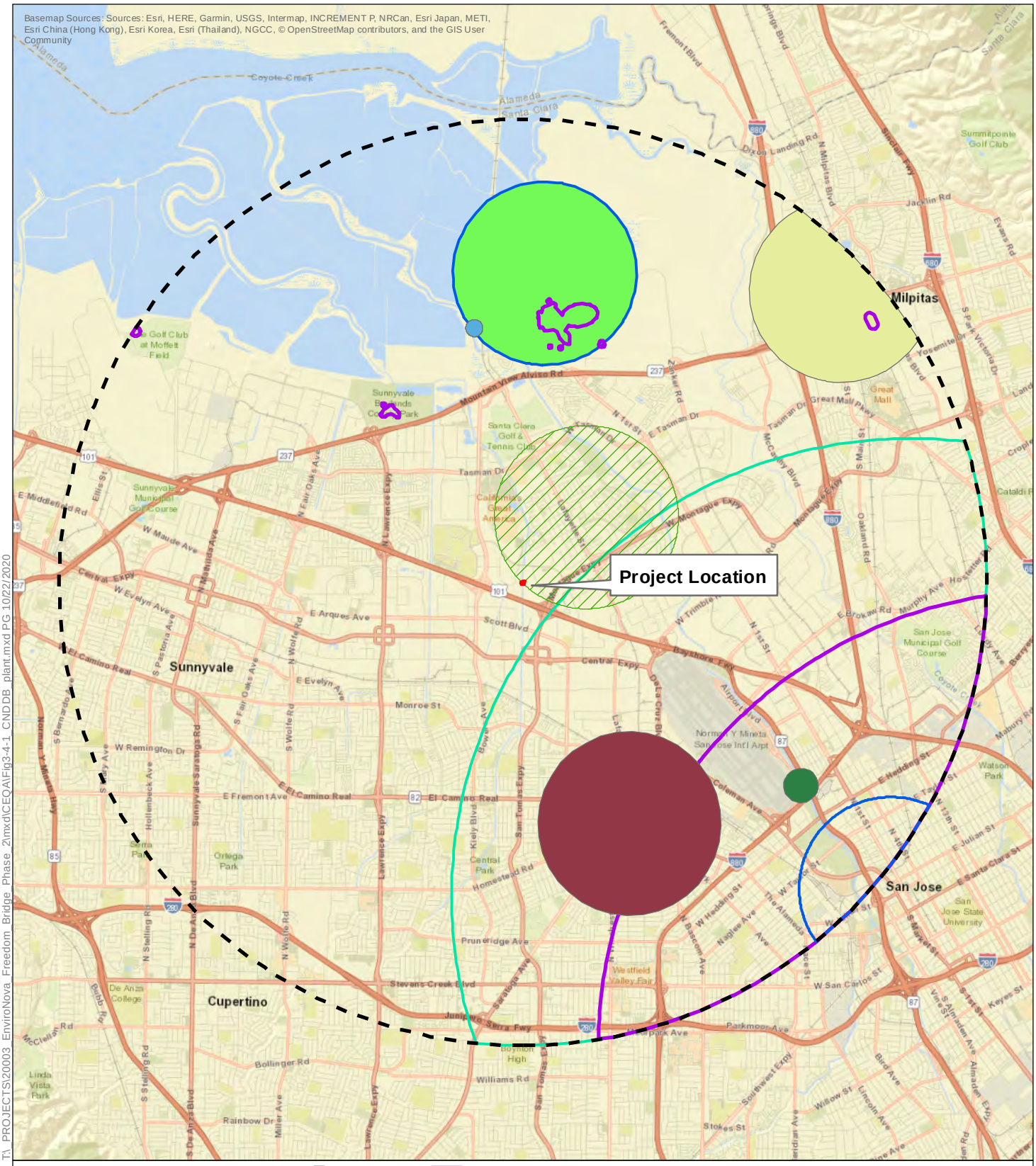
CRPR 2 = Plants rare, threatened, or endangered in California but more common elsewhere

CRPR 4 = Plants of limited distribution-a watch list

.1 = seriously threatened in California

.2 = moderately threatened in California

3 = not very threatened in California



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Data Source: ESRI 2019, CNDDB March 2020 update

5-mile buffer
Project Area
Congdon's tarplant
Hall's bush-mallow
Hoover's button-celery
Point Reyes salty bird's-beak
alkali milk-vetch
arcuate bush-mallow
hairless popcornflower
robust spineflower
saline clover

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Miles

Horizon
WATER and ENVIRONMENT

Figure 3.4-1
Special-status Plant Occurrences within 5 miles

Freedom Bridge Demolition Project

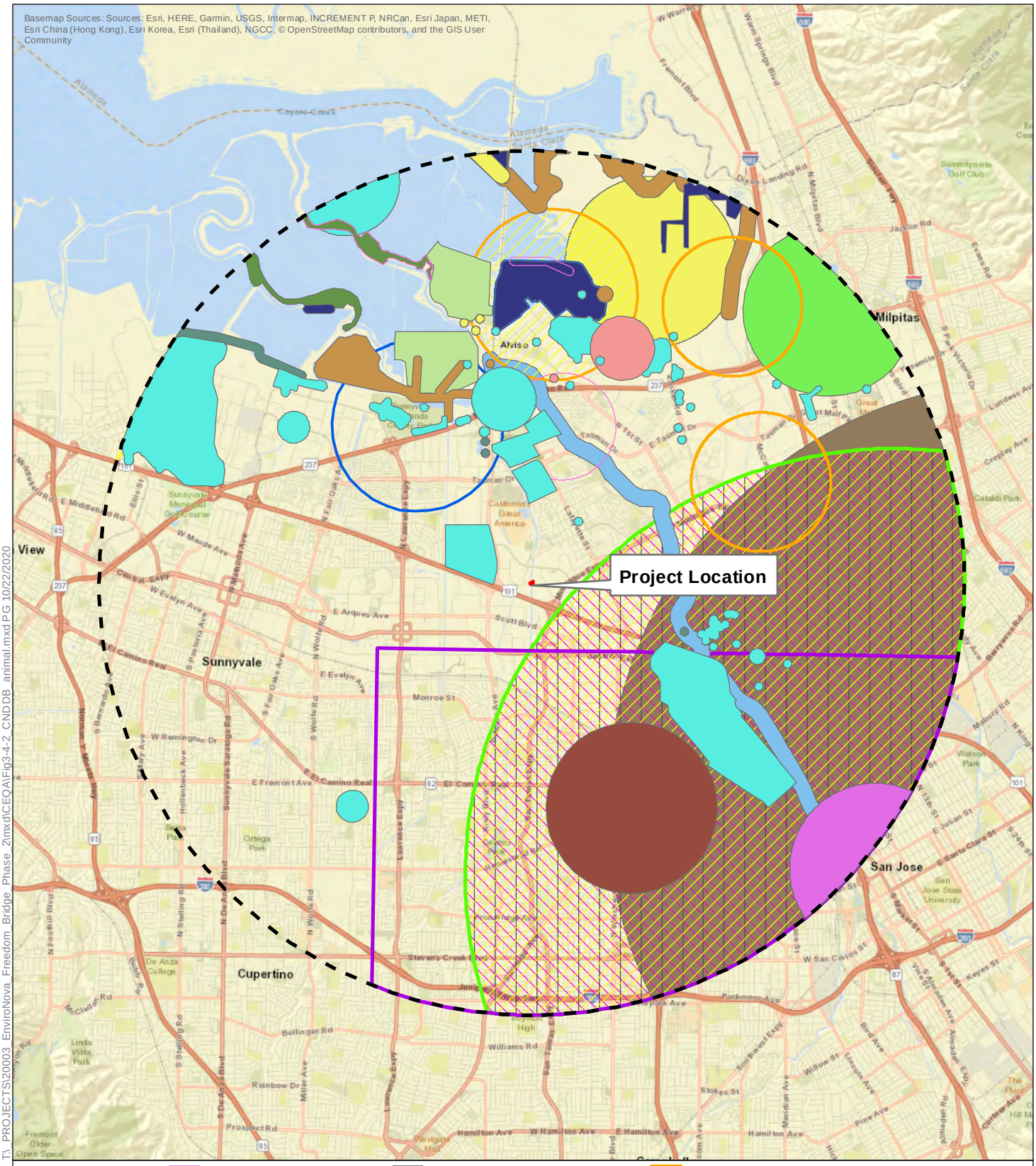

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Figure 3.4-2
Special-status Animal Occurrences within 5 miles

Freedom Bridge Demolition Project

3.4.3 Discussion of Checklist Responses

a. Substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species – Less Than Significant with Mitigation

No special-status plants were found to have potential to occur in the Proposed Project area; therefore, no impacts would occur to special-status plants. Special-status wildlife species that may occur in the Proposed Project area includes western pond turtle, although no western pond turtles were observed during the survey. Although no known run of steelhead is present in San Tomas Aquino Creek, stray steelhead could potentially occur in the creek.

Western pond turtle may be present in riverine or adjacent habitat in the Proposed Project area; however, Proposed Project activities are not anticipated to result in impacts to this species. Although no known run of steelhead is present in San Tomas Aquino Creek due to an impassible barrier downstream of habitat known to support *O. mykiss*, stray steelhead could potentially occur in the creek. No work would occur within the stream, and netting would be placed beneath the bridge during demolition to prevent materials from accidentally entering the stream.

The Proposed Project would be conducted between June 15 and October 15, and would therefore avoid the migratory period for steelhead. No steelhead are anticipated to be present during the work period, and therefore no impacts to steelhead would occur from the Proposed Project.

In the unlikely event that western pond turtle are present during construction activities, individual turtles may be harmed or killed. Although western pond turtles are widespread in the project region, the species is not particularly abundant, and the loss of individuals could reduce the viability of a population to the extent that it would be eliminated. The Proposed Project incorporates BMPs including BMP BI-4 (*Avoid Animal Entry and Entrapment*), BI-5 (*Minimize Predator Attraction*), WQ-1 (*Conduct Work from Top of Bank*), WQ-2 (*Limit Impacts from Staging and Stockpiling Materials*) and BMP WQ-6 (*Prevent Water Pollution*). Implementation of these measures as part of the Proposed Project would minimize potential impacts to western pond turtle. Additionally, implementation of the measures in the Proposed Project's erosion control plan would reduce the potential for sediment to enter the creek, further minimizing impacts. During initial coordination with CDFW regarding the Proposed Project, CDFW requested incorporation of **Mitigation Measure BIO-1**.

Mitigation Measure BIO-1: Conduct Pre-construction Surveys for Special-status Species, Nesting Birds, and Bats

A. If construction activities occur during the breeding season (February 15–August 31), a pre-construction nesting bird survey shall be conducted by a qualified biologist in all areas of suitable nesting habitat within 500 feet of construction activity for raptors and within 250 feet for passerines. Surveys shall be conducted within 14 days before the start of construction activity. If no work occurs for a period of 2 or more weeks during the nesting season, surveys must be performed before work is resumed. If the

survey indicates that no active nests are found, no further mitigation shall be required.

B. If active nests are identified, appropriate no-work buffers will be established. Appropriate buffer widths will be established by a qualified biologist familiar with the life history and reproductive strategies of the nesting species. The buffer widths will be based on species' sensitivity to disturbance (as documented in peer-reviewed literature), planned construction activities, and baseline level of human activity. The buffers will be clearly marked in the field with flagging or fencing. No project activity shall commence within the buffer area until a qualified biologist confirms that the young have fledged or the nest is no longer active.

C. Within 48 hours of construction a qualified biologist shall conduct pre-construction surveys for presence of special-status fish and wildlife species within and adjacent to the work area. If special-status species are encountered the biologist will notify CDFW immediately for further guidance. A survey for birds and bats that may use the bridge will be conducted 7 days prior to construction. This survey will include identification of bird species that may be using the bridge for nesting such as swallows. A survey for bats that could be using the bridge as roosting habitat will also be conducted. Resumes for qualified biologists and a report of bridge survey results will be provided to CDFW for review and approval.

With implementation of Mitigation Measure BIO-1, the impact to special-status species would be **less than significant with mitigation**.

b. Substantial adverse effect on any riparian habitat or other sensitive natural community – Less than Significant

The Proposed Project is located along San Tomas Aquino Creek, and the levee slopes would be considered riparian habitat. No other sensitive natural communities are present within the Proposed Project.

Proposed Project activities involve removal of the Freedom Bridge, and associated post-removal site restoration. The levee slopes are dominated by ruderal non-native species, and the tops of the levees are developed, consisting of gravel or pavement. Temporary disturbance would occur on the levee slopes. Placement of temporary shoring and crane feet for bridge removal during Phase I would results in approximately 160 square feet of temporary disturbance to levee slopes. Following installing of the temporary shoring, a catch screen/tarp would be installed at the four bridge cut points, where wood would be removed and beams would be cut, to ensure any falling material does not enter the creek. During Phase II, removing of the bridge abutments and regrading of the levee slopes to their original contours would result in temporary disturbance to approximately 400 square feet of the inboard slope of the levee. Erosion control measures (anticipated to be silt fence and straw bales) would be installed per the Proposed Project's erosion control plan. Disturbance to the levee slopes would be minimized, and disturbed portions of the levee slope would be restored and hydroseeded. The Proposed Project would only result in temporary impacts.

The Proposed Project incorporates BMPs including BI-3 (*Choose Local Ecotypes Of Native Plants and Appropriate Erosion-Control Seed Mixes*), WQ-2 (*Limit Impacts From Staging and Stockpiling Materials*), WQ-4 (*Use Seeding for Erosion Control, Weed Suppression, and Site Improvement*), and WQ-7 (*Prevent Stormwater Pollution*). Implementation of these measures as part of the proposed project would minimize potential impacts to riparian habitat. Therefore, impacts to riparian habitat and sensitive natural communities would be **less than significant**.

c. Substantial adverse effects on state or federally protected wetlands – Less than Significant

No activities would take place below ordinary high water of San Tomas Aquino Creek or within wetlands or waters of the U.S during either phase of the Proposed Project. Temporary impacts to levee slopes, which are considered waters of the State, are described above.

The Proposed Project has been designed to avoid and minimize impacts to waters of the U.S. and State. No loss of waters would occur, and no work would occur below the ordinary high water of San Tomas Aquino Creek. Erosion control measures (anticipated to be silt fence and straw bales) would be installed per the Proposed Project's erosion control plan. Disturbance to the levee slopes would be minimized, and disturbed portions of the levee slope would be restored and hydroseeded. The Proposed Project would only result in temporary impacts.

The Proposed Project incorporates BMPs including WQ-1 (*Conduct Work from Top of Bank*), WQ-2 (*Limit Impacts from Staging and Stockpiling Materials*), WQ-6 (*Prevent Water Pollution*), and WQ-7 (*Prevent Stormwater Pollution*). Implementation of these measures as part of the Proposed Project would minimize potential impacts to waters of the U.S. and State. Therefore, impacts to state or federally protected wetlands would be **less than significant**.

d. Substantial interference with wildlife movement, established wildlife corridors, or the use of native wildlife nursery sites – Less than Significant with Mitigation

San Tomas Aquino Creek provides a corridor for wildlife movement. No work would occur below ordinary high water of the creek, and no permanent barriers to wildlife would result from the Proposed Project. Removal of the Freedom Bridge may result in wildlife temporarily avoiding the immediate vicinity of the Proposed Project during implementation; however, this would not be considered a significant impact due to the temporary nature of the Proposed Project.

The Proposed Project area contains suitable nesting habitat for birds, and bird nests were observed on the Freedom Bridge during a July 2019 site visit. Active nests of most native birds are protected under the MBTA; California Fish and Game Code Section 3503 protects nests and eggs; and raptors are protected under California Fish and Game Code Section 3503.5. Noise and disturbance or direct removal of active nests associated with implementation of the Proposed Project could temporarily adversely affect birds during their nesting season, and would be a significant impact.

Impacts on nesting birds protected by the MBTA, would be avoided and minimized through implementation of biological BMPs, described in detail in Table 2-2 in Chapter 2, *Project Description*. These measures include BI-1 (*Avoid Impacts to Nesting Migratory Birds*) and BI-2

(*Avoid Impacts to Nesting Migratory Birds from Pending Construction*). Additionally, implementation of **Mitigation Measure BIO-1** would require pre-construction surveys and establishment of no-work buffers around active nests.

No evidence of bat use of the bridge was observed during the 2019 reconnaissance survey. The bridge structure does not appear to provide habitat suitable for bat roosting. However, if bats were to use the bridge, removal of bat maternity roosts would be a significant impact. Implementation of **Mitigation Measure BIO-1** would require pre-construction surveys for bats roosting in the bridge, and coordination with CDFW.

With implementation of Mitigation Measure BIO-1, the impact on wildlife movement and nursery sites would be **less than significant with mitigation**.

e. Conflict with local policies or ordinances protecting biological resources – No Impact

The provision of landscaping and trees in the community is addressed in the City of Santa Clara General Plan (City of Santa Clara 2010). General Plan Policy 5.10.1-P4 states the City of Santa Clara will protect all healthy cedars, redwoods, oaks, olives, bay laurel and pepper trees of any size, and all other healthy 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. Several trees are present in the vicinity of the Proposed Project; however, no tree removal is planned. Therefore, **no impact** would occur.

f. Conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state HCP – No Impact

The Proposed Project area is located within the Pacific Gas and Electric Company (PG&E) Bay Area Operations and Maintenance Habitat Conservation Plan (HCP) boundary (82 Federal Register 15063). The Proposed Project is not a PG&E-covered activity under the HCP and would not conflict with the HCP's conservation strategy or provisions. The Proposed Project area is not covered within any other HCPs; therefore, the Proposed Project would not conflict with provisions adopted by an HCP, NCCP, or other approved local, regional, or state habitat conservation plan. Therefore, there would be **no impact**.

3.5 CULTURAL RESOURCES

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a.	Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☐	☒
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☒	☐
c.	Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐

3.5.1 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal regulations are applicable to cultural resources in relation to the Proposed Project.

State Laws, Regulations, and Policies

CEQA and CEQA Guidelines

Section 21083.2 of CEQA requires that the lead agency determine whether a project may have a significant effect on unique archaeological resources. A unique archaeological resource is defined in CEQA as an archaeological artifact, object, or site about which it can be clearly demonstrated that there is a high probability that it:

- Contains information needed to answer important scientific research questions, and there is demonstrable public interest in that information;
- Has a special or particular quality, such as being the oldest of its type or the best available example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Although not specifically inclusive of paleontological resources, these criteria may also help to define “a unique paleontological resource or site” (which are further discussed in Section 3.7, “Geology, Soils, and Seismicity”).

Measures to avoid, conserve, preserve, or mitigate significant effects on these resources are also provided under CEQA Section 21083.2.

Section 15064.5 of the CEQA Guidelines notes that "a project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment." Substantial adverse changes include physical changes to the historic resource or to its immediate surroundings, such that the significance of the historic resource would be materially impaired. Lead agencies are expected to identify potentially feasible measures to mitigate significant adverse changes in the significance of a historic resource before they approve such projects. Historical resources are those that are:

- listed in, or determined to be eligible for listing in, the California Register of Historical Resources (CRHR) (Public Resources Code Section 5024.1[k]);
- included in a local register of historic resources (Public Resources Code Section 5020.1) or identified as significant in an historic resource survey meeting the requirements of Public Resources Code Section 5024.1(g); or
- determined by a lead agency to be historically significant.

CEQA Guidelines Section 15064.5 also prescribes the processes and procedures found under Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.95 for addressing the existence of, or probable likelihood of, Native American human remains, as well as the unexpected discovery of any human remains within the project site. This includes consultation with the appropriate Native American tribes.

CEQA Guidelines Section 15126.4 provides further guidance about minimizing effects to historical resources through the application of mitigation measures. Mitigation measures must be legally binding and fully enforceable.

California Register of Historical Resources

Public Resources Code Section 5024.1 establishes the CRHR. The register lists all California properties considered to be significant historical resources. The CRHR includes all properties listed as or determined to be eligible for listing in the National Register of Historic Places (NRHP), including properties evaluated under Section 106 of the NHPA. The criteria for listing are similar to those of the NRHP. Criteria for listing in the CRHR include resources that:

1. Are associated with the events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Are associated with the lives of persons important in our past;
3. Embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values; or
4. Have yielded, or may be likely to yield, information important in prehistory or history.

The regulations set forth the criteria for eligibility as well as guidelines for assessing historical integrity and resources that have special considerations.

Local Laws, Regulations, and Policies

City of Santa Clara General Plan

The City of Santa Clara General Plan (City of Santa Clara 2010) contains a number of goals and policies that focus on historic preservation of archaeological and architectural resources within the city. As an intensely urbanized area these goals and policies focus on built environment resources, though archaeological resources are also included. The goals and policies are organized under several headings including Historic Preservation, Areas of Historic Sensitivity, and Archaeological and Cultural Resources. The goals and policies relating to Archaeological and Cultural Resources are the most pertinent to the Proposed Project.

The Archaeological and Cultural Resources goals include:

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

The following six policies are associated with these goals:

> **5.6.3-P1:** Require that new development avoid or reduce potential impacts to archaeological, paleontological and cultural resources.
>
> **5.6.3-P2:** Encourage salvage and preservation of scientifically valuable paleontological or archaeological materials.
>
> **5.6.3-P3:** Consult with California Native American tribes prior to considering amendments to the City's General Plan.
>
> **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.
>
> **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.
>
> **5.6.3-P6:** In the event that human remains are discovered, work with the appropriate Native American representative and follow the procedures set forth in State law.

3.5.2 Environmental Setting

Prehistory

The prehistory of the Proposed Project area reflects information known about the indigenous population from the time the region was first populated with humans until the arrival of the first Europeans, who visited and recorded their journeys through the written record. The prehistoric record is derived from over a century of archaeological research, and while much has been gleaned from these studies, large gaps in the data record remain. The following prehistoric culture sequence, derived from Milliken et al. (2010:114-118), briefly outlines the prehistory of the San Francisco Bay region.

The Early Holocene (Lower Archaic; 8000 to 3500 B.C.) is considered a time when populations continued to be very mobile as they practiced a foraging subsistence pattern around the region. Artifacts that characterize this period include the millingslab and handstone to process seeds, as well as large wide-stemmed and leaf-shaped projectile points.

The Early Period (Middle Archaic; 3500 to 500 B.C.) is marked by the appearance of cut shell beads in the archaeological record, as well as the presence of the mortar and pestle for processing acorns. House floors with postholes indicate substantial living structures, which suggests a move toward establishing a more sedentary lifestyle and an increasing population.

The Middle Period, which includes the Lower Middle Period (Initial Upper Archaic; 500 B.C. to A.D. 430) and Upper Middle Period (Late Upper Archaic; A.D. 430 to 1050), appears to be a time when geographic mobility may have continued, although groups began to establish longer-term base camps in localities from which a more diverse range of resources could be exploited. The first rich black middens are recorded from this period. The addition of milling tools, obsidian and chert concave-base projectile points, and the occurrence of sites in a wider range of environments suggest that the economic base was more diverse. By the Upper Middle Period, mobility was being replaced by the development of numerous small villages. Around A.D. 430 a "dramatic cultural disruption" occurred, as evidenced by the sudden collapse of the Olivella saucer bead trade network.

The Initial Late Period (Lower Emergent; A.D. 1050 to 1550) reflects a social complexity that had developed toward lifeways of large, central villages with resident political leaders and specialized activity sites. Artifacts associated with the period include the bow and arrow, small corner-notched projectile points, and a diversity of beads and ornaments.

The Terminal Late Period (Upper Emergent; A.D. 1550 to circa 1750) generally represents the indigenous cultures that were encountered by the Spanish when they first arrived in San Francisco Bay.

Ethnography

The population indigenous to the Proposed Project area spoke a language referred to as Costonoan, a derivative from a Spanish term for "coast people." Costonoan, which consisted of six known languages and various dialects within those languages, was spoken over a broad territory that included all of the San Francisco Peninsula and all lands along the east and south

of San Francisco Bay, and that extended south to include Monterey Bay, Salinas Valley, and the area around Hollister. Those residing in the Santa Clara Valley and the project area spoke the Tamyen (or Tamien) dialect of San Francisco Bay Costonoan (Milliken et al. 2009:33-35).

The Costonoan peoples, also referred to as the Ohlone, Mutsun, or Rumsen, depending on geography, were not a united cultural or political entity (Milliken et al. 2009:2-4). Rather, there were strong differences, not only in language but also in culture, between the San Francisco and Monterey bay occupants, and political affinity was based on the tribelet, which comprised one or more villages within a specific geographic territory (Levy 1978:487).

Tribelet territory had a range of 10 to 12 miles in diameter, and contained a population that consisted of 200 to 400 people living among four or five villages (Milliken et al. 2010:99). Those living in the Proposed Project area resided in large villages along permanent streams in locations that allowed access to the diverse resources found in the tidal marshlands, the valley floor, and the hills. (Milliken et al. 2010:106; Moratto 2004:225).

The Tamyen were among the first of the San Francisco Bay Costonoans to feel the impact created by the arrival of the Spanish. Mission Santa Clara was established in 1777, just seven months after the founding of Mission Dolores in San Francisco, and followed by the pueblo at San Jose (El Pueblo San Jose de Guadalupe) shortly thereafter (Kyle 2002:423-424). The mission population of Tamyen grew slowly during the first few years and decades, and was comprised mostly of infants, children, and the very old. The first large wave of adults to be baptized occurred in 1794. According to Milliken et al. (2009:141):

> The huge growth of the Mission Santa Clara adult population in 1794 and 1795 could only have been the result of a social movement. There is no evidence that Spanish soldiers marched the people into the mission, nor that drought drove them in.

Despite the apparent lack of forced baptism, local Tamyen worked at the mission and the San Jose pueblo. Exposure to new diseases and new foods, in addition to restrictions on traditional seasonal movement to gather resources and the diminishment of natural resources by the colonists, contributed to a steep decline in the native population during the initial decades of colonization and through to the secularization of the missions in the early 1800s.

Beginning in the early 1900s, the various Ohlone/Costanoan tribes began to organize and re-claim their ancestral identity by petitioning the U.S. Bureau of Indian Affairs (BIA) for tribal recognition. To date, none of the tribes has been successful at establishing federal recognition. As they continue their effort with the BIA, individuals and tribal organizations are working to strengthen their culture both within their communities and by sharing their culture with others. To accomplish this, today's Ohlone/Costanoan tribes have developed numerous programs to revive and enhance traditional language, songs, dances, and basketry, among other aspects of culture (Milliken et al. 2009: 231-236). Although the Mission Santa Clara population had one of the highest numbers of native speakers (i.e., Tamyen), those individuals seem to have disappeared into the general population. According to Milliken et al. (2009:201), "No Mission Santa Clara descendants are known to us to be active in present-day Ohlone/Costanoan cultural or political activities."

History

The historic era began in the region of Santa Clara County when Spanish explorers arrived in the late 1760s and the 1770s. Members of the Portola expedition were the first to arrive in November of 1769, reaching San Francisco Bay before returning to Monterey. Pedro Fages followed in 1770, and made a return trip in 1772. The latter visit was chronicled by Father Crespi as Fages' group followed up the east side of the Bay and eventually into the Sacramento Valley; upon their return, they again passed through Santa Clara Valley, camping one night near present-day Milpitas. A subsequent expedition through the Santa Clara Valley in 1775-76, led by Juan Bautista de Anza, further helped to establish the El Camino Real, which was originally delineated by Fages. This route later was used by the Spanish to settle the region with pueblos and missions (Kyle 2002:421-422).

The Santa Clara County was named after Mission Santa Clara de Assis. The mission was initially founded in 1777 on the banks of the Guadalupe River at a village called So-co-is-u-ka by the local Ohlone Indians who were living in the valley. Later that same year the Pueblo of San Jose de Guadalupe was established along the Guadalupe River, approximately 2.25 miles from the mission, in order to grow food for the clerics and their neophytes. The town, now known as San Jose, was the first civilian settlement in Alta California (Kyle 2002:422-424).

The rich lands of the Santa Clara Valley were divided among 50 land grant recipients by first the Spanish, and then the Mexican, governments. The Proposed Project area was within the boundaries of the 2,217-acre Rancho Ulistac, which was created during the Mexican period (1821-1848), when mission lands were dispersed to private citizens. Governor Pio Pico originally granted the land in 1845 to Marcelo, an Ohlone man who was the son of the former headman of the local indigenous tribe living at the Santa Clara Mission (Milliken et al. 2009:161). At some point, the land was acquired by Jacob Hoppe, who came to an untimely death in a steamboat explosion in 1853 (Kyle et al. 2002:429). Ultimately, the lands were patented to his heirs in 1868 (State Lands Commission 1982:129).

American explorers, traders, and settlers began filtering into California and the Santa Clara Valley during the Mexican Period, some of them becoming Mexican citizens in order to receive vast grants of land. But it was not until the beginning of the American Period, after the end of the Mexican War and the signing of the Treaty of Guadalupe Hidalgo in 1848, that non-Hispanic Anglos began migrating en masse. This surge in migration was bolstered by the discovery of gold in the Sierra Nevada foothills and the advent of the Gold Rush in 1849.

The City of Santa Clara grew up around the extant mission, and was incorporated in 1852. The area became known for its manufacturing, seed and fruit industries (City of Santa Clara 2020) during the last half of the nineteenth century. The Santa Clara Valley became a prominent agricultural area, aided by the completion of the Western Pacific Railroad in 1867, which helped to transport goods and people between San Jose and Oakland, and beyond. The cultivation of row crops such as spinach, peas, asparagus, beans, and strawberries supported the area throughout the late 1800s and into the mid-1900s (Milpitas History 2015). The region began to become more urban after World War II, and more so after the Korean War. A review of historic maps and aerial photographs (see Section 3.2, "Agriculture and Forestry Resources," below) indicates that the area immediately surrounding the Area of Potential Effect (APE) did not fully

develop until the late 1960s/early 1970s, when the Santa Clara Valley truly began its transformation into the "Silicon Valley" we know today.

Cultural Resources Studies

Cultural resources include prehistoric archaeological sites; historic-era archaeological sites; tribal cultural resources (TCRs); and historic buildings, structures, landscapes, districts, and linear features. TCRs are addressed in Section 3.18, "Tribal Cultural Resources."

Archival Search

A record search was conducted by Horizon cultural resources staff at the Northwest Information Center of the California Historical Resources Information System at Sonoma State University on March 4, 2020 (IC File Number 19-1385). The purpose of the record search was to identify the presence of any previously recorded cultural resources within the Proposed Project site, as well as within a 0.25 -mile buffer, and to determine whether any portions of the Proposed Project site had been surveyed for cultural resources. The record search determined that seven cultural resources studies have included portions of the Proposed Project area (see **Table 3.5-1**), and an additional 13 studies have taken place within the 0.25-mile record search area.

Table 3.5-1. Cultural Resource Investigations Conducted within the Project Study Area

CCIC Report No. (S-)	Author	Date	Title
4382	Hastings, R.	1975	An Archaeological Survey of the San Tomas Expressway Interchange
4486	Fazio, M.	1978	Field reconnaissance of parcels along Mission College Boulevard in the City of Santa Clara
16820	Busby, C.	1994	Cultural Resources Assessment, Regency Site Project - Intel, City of Santa Clara, Santa Clara County, California
18367	Hylkema M	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
19072	Busby, C., et al.	1996	Historic Properties Treatment Plan, South Bay Water Recycling Program.
22570	Baker, S.	1998	Archaeological Survey, San Tomas Aquino/Saratoga Creek Trail Project, Santa Clara County, California
45670	Kubal, K.	2014	Historic Property Survey Report, US 101 Express Lanes Project, Project No. 0412000459/EA 2G7100, 04-SCL-101 PM 16.00/52.55 - 04-SCL-85 PM 23.0/24.1, Santa Clara County, California/Supplemental Historic Property Survey Report, US 101 Express Lanes Project, Project No. 0412000459/EA 2G7100, 04-SCL-101 PM 16.00/52.55 - 04-SCL-85 PM 23.0/24.1, Santa Clara County, California

Source: Northwest Information Center of the California Historical Resources Information System, File Number 19-1385.

The record search did not identify any previously recorded cultural resources within the Proposed Project area, nor have been recorded within the 0.25-mile buffer.

Archival review also included a review of historic USGS topographic maps of the Project area. An examination of early USGS topographic maps (USGS 2020) suggests that the natural channel of San Tomas Aquino Creek was relatively straight in the Project area at least as far back as 1889 when it is identified as an ephemeral stream set in an undeveloped area. By 1953 the creek appears to have been somewhat channelized and was surrounded by orchards. Some minor development had occurred east of the creek by 1961, but the adjacent orchards persisted. The 1968 USGS map is similar, but the drainage appears to have been channelize with levees. As recently as 1980, while the region was quickly developing into a heavily urbanized landscape, remnant orchards remained present just west of the creek and also to the east at the northern end of the Proposed Project. This trajectory is corroborated by aerial photographs of the region (NETRonline 2020), in which it is clear that the levees were constructed between 1960 and 1968 (dates of available aerial images). Freedom Bridge, itself, was permitted by the City in 1997 (Valley Water 2018), and it is seen in an aerial photograph from 1999.

Native American Consultation

An email request was made to the Native American Heritage Commission (NAHC) on September 16, 2020, to review its files for the presence of recorded sacred sites on the Project site. The NAHC responded on September 17, 2020, stating that the records search did not identified significant resources in the Project vicinity. The NAHC also provided a list of ten tribes and tribal contacts with a traditional and cultural affiliation with the Project area for notification pursuant to Public Resources Code § 21080.3.1 (Assembly Bill 52). Coordination with tribes is described in Section 3.18, “Tribal Cultural Resources.”

Archaeological Survey

All Project activities would be on the engineered levee along San Tomas Aquino Creek, an existing levee maintenance road and the Intel parking lot immediately east of the bridge, as described in Chapter 2, *Project Description*. Because no natural ground would be impacted by the Project, an archaeological field investigation was not conducted.

Built Environment Survey

A formal survey of built environment features was not conducted because the bridge across San Tomas Aquinas Creek was constructed sometime between 1997 and 1999, and therefore it is not of sufficient age (i.e., 50 years old) to be considered a historical resource. The levees on both sides of the creek were established in the 1960s and, therefore, meet the age criteria for evaluation. However, the proposed project would not impact the levees in any way that would alter their basic structure, and they were not formally evaluated for CRHR eligibility.

3.5.3 Discussion of Checklist Responses

a. Adverse change in the significance of a historical resource – No Impact

No historical resources, as defined in Section 15064.5 of the CEQA Guidelines, and no TCRs were identified within the project site. Although the levees are of sufficient age to potentially be

evaluated as a significant resource, the proposed project would not impact the levees in any way that would alter the nature or design of the character-defining features and would, in fact, restore the levees to their original state without the bridge. Therefore, even if the levees were determined to be significant during evaluation, the Proposed Project would not cause a substantial adverse change to a historic resource and there would be **no impact**.

b. Adverse change in the significance of an archaeological resource – Less than Significant

No archaeological resources, as defined in Section 15064.5 of the CEQA Guidelines, have been identified within the Project site through archival research, and because Project activities would not involve excavation in original ground, archaeological remains in their original depositional context would not be encountered. Archaeological artifacts are sometimes discovered in redeposited levee fill material, but these items are without context and are therefore not considered significant. Additionally, Valley Water BMP CU-1 (Accidental Discovery of Archaeological Artifacts or Burial Remains) would be implemented would avoid or minimize any potential impacts to archaeological resources by requiring work to stop if archeological resources are found, establishing a no-work buffer within 100 feet of the find, and following specific protocols for identification and evaluation of the find. Therefore, the impact on archeological resources would be **less than significant**.

c. Disturbance of any human remains, including those interred outside of formal cemeteries - Less than Significant

While human remains are unlikely to occur in the Project area, implementation of standard precautionary measures for the accidental discovery of unknown finds consistent with BMP CU-1 (Accidental Discovery of Archeological Artifacts, Tribal Cultural Resources, or Burial Remains) would avoid or minimize any potential impacts to human remains. In the event human remains or burial sites are discovered, the County Coroner would be immediately notified and no further excavation or disturbance of the site would be allowed within 100 feet unless otherwise authorized by the County Coroner, California NAHC, and/or the County Coordinator of Indian Affairs. Therefore, impacts to human remains would be **less than significant**.

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3.6 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?	☐	☐	☒	☐

3.6.1 Regulatory Setting

This section describes the federal, state, and local regulations related to energy resources. Section 3.8, "Greenhouse Gas Emissions," contains additional discussions of GHG-related regulations that may also be relevant to energy resources.

At the federal level, the USEPA and the National Highway Traffic Safety Administration (NHTSA) have developed regulations to improve the efficiency of cars, and light-, medium-, and heavy-duty vehicles. These regulations are discussed in greater detail in Section 3.8.

Energy resource-related regulations, policies, and plans at the state level, require the regular analysis of energy data and developing recommendations to reduce statewide energy use, and setting requirements on the use of renewable energy sources. SB 1389, passed in 2002, requires the California Energy Commission (CEC) to prepare an Integrated Energy Policy Report (IEPR) for the governor and legislature every 2 years and an update every other year (CEC 2020a). The report analyzes data and provides policy recommendations on trends and issues concerning electricity and natural gas, transportation, energy efficiency, renewable energy, and public interest energy research (CEC 2020a). The 2017 Final Integrated Energy Policy Report includes policy recommendations such as implementing the Clean Energy and Pollution Reduction Act; resiliency of the electricity sector; and addressing the vulnerability of California's energy infrastructure to extreme events related to climate change, including sea-level rise and coastal flooding (CEC 2018a). The 2018 IEPR Update, Toward A Clean Energy Future, was split into two volumes that were adopted separately in August 2018 and February 2019 (CEC 2018b, CEC 2019). The 2018 Update covers a broad range of topics, including decarbonizing buildings, energy efficiency, energy equity, integrating renewable energy, climate adaptation activities for the energy sector, and the California Energy Demand Forecast. The Final 2019 Integrated Energy Policy Report provides analyses of electricity sector trends, building decarbonization and energy efficiency, zero-emission vehicles, energy equity, climate change adaptation, and electricity, natural gas, and transportation energy demand forecasts (CEC 2020b).

Section 3.8, "Greenhouse Gas Emissions," provides additional details on California's 2017 Climate Change Scoping Plan, which details the state's strategy for achieving the state's GHG targets, including energy-related goals and policies. It contains measures and actions that may pertain to the Proposed Project relating to vehicle efficiency and transitioning to alternatively powered vehicles (CARB 2017).

The City of Santa Clara General Plan guides greenhouse gas emission and energy-related guidance for projects in the City of Santa Clara. Greenhouse gas emission-related goals and policies are included in this IS/MND's Section 3.8, "Greenhouse Gas Emissions." Policies in the general plan related to energy that may be applicable to the Proposed Project include the following (City of Santa Clara 2010):

5.10.3-G2: Implementation of energy conservation measures to reduce consumption.

5.10.3-P5: Reduce energy consumption through sustainable construction practices, materials and recycling.

3.6.2 Environmental Setting

Energy Resources and Consumption

California has extensive energy resources, including an abundant supply of crude oil, high production of conventional hydroelectric power, and leads the nation in electricity generation from renewable resources (solar, geothermal, and biomass resources) (U.S. Energy Information Administration [EIA] 2020). California has the second highest total energy consumption in the United States but one of the lowest energy consumption rates per capita (47th in 2018) due to its mild climate and energy efficiency programs (EIA 2020). A comparison of California's energy consuming end-use sectors indicates that the transportation sector is the greatest energy consumer, by approximately two to three times compared to the other end-use sectors (Industrial, Commercial, and Residential, which are listed in order of greatest to least consumption) (EIA 2020). California is the largest consumer of motor gasoline and jet fuel in the United States (EIA 2020).

In 2016, the City of Santa Clara's greatest GHG community emission sources (and presumably energy sources) were the commercial and industrial sector (61% of total emissions, or 1,080,261 metric tons of carbon dioxide equivalents per year [$MTCO_2e$]) followed by transportation and mobile sources, which comprised 29% of total emissions in the City or 505,989 $MTCO_2e$ (City of Santa Clara 2018).

3.6.3 Discussion of Checklist Responses

a, b. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources or Conflict with or obstruct a state or local plan for renewable energy or energy efficiency- Less than Significant

The Proposed Project's activities would require the consumption of energy (fossil fuels) for equipment, worker vehicles, and truck trips. The Proposed Project would not involve any

activities that would require electricity-based energy use. The consumption of energy for the Proposed Project's equipment and vehicles would be minimized by minimizing vehicle idling (BMP AQ-2: *Reduce Construction-related NO_X Emissions*). **Table 3.6-1** shows the estimated fuel use from construction equipment, worker vehicles, and truck trips. The calculations used to develop these estimates are presented in Appendix A.

Table 3.6-1. Project Fossil Fuel Use

Source Type	Diesel Fuel Use (gallons)	Gasoline Fuel Use (gallons)
Off-road Construction Equipment[1]	4,127	
Worker Vehicles[2]		199
Hauling Vehicles[3]	83	

[1] Fuel use for off-road construction equipment was estimated using a fuel use factor from CARB's off-road in-use engine emissions model of 0.408 and 0.367 pound of diesel per horsepower-hour for engines below 100 horsepower (hp) and greater than or equal to 100 hp respectively and diesel fuel density of 7.1089 pounds per gallon. This value includes the use of construction equipment.

[2] Fuel use for construction worker vehicles was estimated using fuel use estimates from EMFAC with an estimated rate of 27.6 gallons per mile.

[3] Fuel use for hauling vehicles was estimated using fuel use estimates from EMFAC with an estimated rate of 6.5 gallons per mile.

Energy consumption during construction activities is necessary for removal of the bridge. These activities would not cause wasteful, inefficient, and unnecessary consumption of energy or cause a substantial increase in energy demand and the need for additional energy resources. Although no mitigation measures are necessary to reduce this impact to a less-than-significant level, implementation of BMP AQ-2 would reduce the Proposed Project's effect by requiring minimization of idling times and requiring that all equipment be maintained and tuned properly. As a result, the Proposed Project would not result in wasteful, inefficient, or unnecessary consumption of energy.

In addition, the Proposed Project would not conflict with any of the goals, policies, or implementation actions identified in the applicable energy plans, such as the Final 2019 Integrated Energy Policy Report, the City of Santa Clara's General Plan, and the City of Santa Clara's Climate Action Plan, because the Proposed Project would not create any future permanent energy demands and would be completed as efficiently as possible. Thus, the Proposed Project would not conflict with any plans relating to renewable energy or energy efficiency. Therefore, this impact is considered **less than significant**. No mitigation is required.

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3.7 GEOLOGY, SOILS, AND SEISMICITY

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:					
a.	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
	ii. Strong seismic ground shaking?	☐	☐	☒	☐
	iii Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
	iv. Landslides?	☐	☐	☐	☒
b.	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c.	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d.	Be located on expansive soil, 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 waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

3.7.1 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal regulations are applicable to geology, soils, and seismicity in relation to the Proposed Project.

State Laws, Regulations, and Policies

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act (PRC Section 2621 et seq.) was passed to reduce the risk to life and property from surface faulting in California. The Alquist-Priolo Act prohibits construction of most types of structures intended for human occupancy directly on or across the surface traces of active faults and strictly regulates construction in the corridors along active faults (earthquake fault zones). It also defines criteria for identifying active faults, giving legal weight to terms such as “active,” and establishes a process for reviewing building proposals in and adjacent to earthquake fault zones. Under the Alquist-Priolo Act, faults are zoned and construction along or across them is strictly regulated if they are “sufficiently active” and “well defined.” Before a Project can be permitted, cities and counties must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act of 1990 (PRC Sections 2690–2699.6) establishes statewide minimum public safety standards for mitigation of earthquake hazards. While the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, such as strong ground shaking, liquefaction, and seismically induced landslides. Its provisions are similar in concept to those of the Alquist-Priolo Act: the State of California is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards, and cities and counties are required to regulate development within mapped seismic hazard zones. In addition, the act addresses expansive soils, settlement, and slope stability. Under the Seismic Hazards Mapping Act, cities and counties may withhold the development permits for a site within a seismic hazard zone until appropriate site-specific geologic and/or geotechnical investigations have been carried out and measures to reduce potential damage have been incorporated into the development plans.

California Public Resources Code

California Public Resources Code, Section 5097.5 states that “no person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological, or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.” As used in this section, "public lands" means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.

3.7.2 Environmental Setting

Geology

The Proposed Project area is located in the San Francisco Bay area, which is one of the most seismically active areas in North America and is dominated by the San Andreas Fault system. This fault system movement is distributed across a complex system of generally strike-slip right-lateral parallel and sub-parallel faults including San Andreas, San Gregorio, Hayward and Calaveras. A major earthquake at any of these sites could produce a strong ground shaking in the Proposed Project area.

The Proposed Project area is located in the Coast Range geomorphic province of California. The Coast Range forms a nearly continuous topographic barrier between the California coastline and the San Joaquin Valley. The Coast Range in this region is a double chain of mountains running north-northwest. Three prominent geologic blocks dominate the San Francisco Bay Area: the Santa Cruz Mountains (western block), the San Francisco Bay (central block), and the East Bay Hills/Diablo range (eastern block). The Proposed Project area is underlain by primarily non-marine-derived deposits from alluvium, lakes, playas, and terraces that are unconsolidated and semi-consolidated (Q) (Pleistocene-Holocene) (CDOC 2010).

Soils

According to the Natural Resources Conservation Service (NRCS), two soil map units are found within the project area as shown in **Table 3.7-1**, Soils within the Proposed Project Area. The majority of the Proposed Project area is dominated by Urban land, 0 to 2 percent slopes, which is a silty clay loam complex (NRCS 2020).

Table 3.7-1. Soils within the Proposed Project Area

Soil Map Unit	Soil Name
102	Urban land, 0 to 2 percent slopes, alluvial fans
165	Urban land-Campbell complex, 0 to 2 percent slopes, protected

Seismicity

The following section describes several aspects of seismicity, including ground shaking, liquefaction, as well as potential for landslide, slope failure, and lateral spreading.

Ground Shaking

Within the Santa Clara Valley, the Silver Creek Fault and other minor faults associated with the Hayward-Silver Creek fault and Monte Vista fault systems are located in close proximity to the Proposed Project area and parallel to the Valley. No known faults occur within the Proposed Project area (CDOC 2010). Seismic risk is not isolated to active faults within Proposed Project area; ground shaking can result from displacement of one other major regional faults (i.e., Central Calaveras and San Andreas faults).

The chance for a magnitude 6.7 or larger earthquake to occur in the greater Bay Area by the year 2043 is 72 percent. Similar smaller earthquakes (between magnitudes 6.0 and 6.7) have a 90 percent chance of occurrence by 2043 (U.S. Geological Survey [USGS] 2003). Earthquakes of these sizes are capable of considerable damage depending on epicenter proximity. The fault system near the Proposed Project is capable of producing an earthquake above 7.0 magnitude and would have a shaking severity of "Very Strong" or an 8 the Modified Mercalli Scale (Association of Bay Area Governments 2016).

Liquefaction

Soil liquefaction is a phenomenon that occurs when saturated sandy or silty soils lose strength during cyclic loading, such as caused by earthquakes. During the loss of strength, the soil acquires mobility sufficient to permit both horizontal and vertical movements, essentially behaving like a liquid. The factors known to influence liquefaction potential are soil type and depth, grain size, density, groundwater level, degree of saturation, and both the intensity and duration of ground shaking.

The alluvial material within the Proposed Project area is identified as having a "relatively high" liquefaction potential due to the "extent, depth, density, and thickness of liquefiable materials depth to ground water, drainage rate, slope gradient, proximity to free faces, and intensity and duration of ground shaking" (CDOC 2001).

Landslide, Slope Failure, and Lateral Spreading

Landslides occur most often along the base of slopes and steep stream banks while slumps can occur on both hills and gently sloping valley areas. Similarly, areas susceptible to lateral spreading and liquefaction are the younger alluvial areas such as those adjacent to incised portions of the San Tomas Aquino Creek. In the Proposed Project area, localized erosion occurs along the banks of the creek. While these streambank features may cause local erosion and could be problematic, they are not considered a high-risk geologic hazard compared to larger hillslope mass movements in areas with more topographic variability.

Paleontological Resources

A paleontological resource is defined as fossilized remains of vertebrate and invertebrate organisms, fossil tracks, and plant fossils. In California, paleontological resources are generally observed in sedimentary and metasedimentary deposits. Based on a database query of the University of California Museum of Paleontology in search of paleontological discoveries, 191 recorded collections are known from Santa Clara County but none are known from San Tomas Aquino Creek in the vicinity of the Proposed Project area (University of California Museum of Paleontology 2020).

3.7.3 Discussion of Checklist Responses

a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Seismic-related rupture of a known earthquake fault – Less than Significant

The Proposed Project area could be subject to ground shaking as a result of seismic activity on any of a number of regional faults. The unconsolidated alluvium in the Proposed Project area is likely prone to liquefaction in the event of an earthquake. The surrounding area is relatively flat and underlain by silty clay loam, but it may be prone to local erosion from the banks along San Tomas Aquino Creek. However, the Proposed Project would not result in increased exposure of people or structures to adverse effects associated with seismic activity. The removal of the Freedom Bridge under phases I and II of the Proposed Project would reduce the potential for the bridge or people to experience risk associated with seismic-related rupture of a known earthquake fault. Therefore, the Proposed Project would have a **less than significant** impact.

ii. Strong seismic ground shaking – Less than Significant

The Proposed Project is located in a seismically active area, and can generally be expected to experience strong earthquake ground shaking during or after the Proposed Project. As described in the previous response, the removal of the Freedom Bridge under phases I and II of the Proposed Project would reduce the potential for the bridge or people to experience risk associated with strong seismic ground shaking. Therefore, the Proposed Project would have a **less than significant** impact.

iii. Seismic-related ground failure, including liquefaction – Less than Significant

The Proposed Project area is underlain by alluvial silty clay loam soils, which generally amplify ground shaking and are potentially susceptible to liquefaction. The removal of the Freedom Bridge under phases I and II of the Proposed Project would reduce the potential for the bridge or people to experience risk associated with seismic-related ground failure (including liquefaction). Therefore, the Proposed Project would have a **less than significant** impact.

iv. Landslides? – No Impact

The topography of the Proposed Project area and surroundings is level and is not located within a geological landslide hazard zone. Implementation of the Proposed Project would not change the risk of structures or people to be affected by landslides. Therefore, the proposed project would result in **no impact** from landslides.

b. Substantial soil erosion or the loss of topsoil – Less than Significant

Implementation of the Proposed Project would include vegetation clearing, minor grading, trenching, and backfilling that could destabilize the soil and increase the erosion potential from water and wind. Phases I and II of the Proposed Project would remove the Freedom Bridge in a manner to prevent waste and materials generated during demolition to avoid contact with water in San Tomas Aquino Creek. As described in Chapter 2, the Proposed Project would implement Valley Water's Hydrology and Water Quality BMPs including: WQ-2 (Limit impacts of from Staging and Stockpiling of Materials) and WQ-3 (Stabilize construction and entrances and exits), which requires implementation of measures to minimize soil from being tracked near work sites; WQ-5 (Maintain clean conditions at work sites), which requires that the work sites and access roads are maintained in an orderly condition; WQ-6 (Prevent water pollution), which requires oily, greasy, or sediment laden substances or other material that originates from project operations to not be allowed to enter or be placed where it may enter a waterway; and WQ-7 (Prevent Stormwater Pollution), which requires that measures be implemented to prevent stormwater pollution. Therefore, the Proposed Project would have a **less than significant impact** on soil erosion or loss of topsoil.

c. Location on a geologic unit or soil that is unstable or that would become unstable as a result of the Proposed Project and potentially result in an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse – No Impact

The Proposed Project is located on alluvium soils, which are potentially unstable and subject to liquefaction. The Proposed Project would not increase the potential for an on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse of land relative to the baseline. Therefore, the Proposed Project would have **no impact** on the potential for landslides, lateral spreading, subsidence, liquefaction, or geologic unit collapse.

d. Location on expansive soil, creating substantial direct or indirect risks to life or property – Less than Significant

Expansion and contraction of volume can occur when expansive soils undergo alternating cycles of wetting (swelling) and drying (shrinking). During these cycles, the volume of the soil changes markedly. Expansive soils are common throughout California and can cause damage unless properly treated during construction. Based on the available soil survey information, the subsurface soil conditions within the Proposed Project area predominantly include silty clay loam (NRCS 2020). Implementation of the Proposed Project would remove the Freedom Bridge, which would reduce the risk potential to life or property associated with the presence of expansive soil. Therefore, Proposed Project impacts associated with expansive soils would be **less than significant**.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater – No Impact

The Proposed Project does not include the use, creation, or modification of septic tanks or wastewater disposal systems. Therefore, the Proposed Project would not result in soils

incapable of adequately supporting the use of septic tanks or other wastewater disposal systems and it would have **no impact** on such systems.

f. Destruction of a unique paleontological resource or site or unique geological feature – Less than Significant

Paleontological resources include fossil remains, as well as fossil localities and rock or soil formations that have produced fossil material. Recent alluvial deposits, such as those found at the Proposed Project site, are not typically associated with the presence of paleontological remains. Additionally, excavation is limited to the levee slopes, which are constructed of fill material, further reducing the potential for discovery of paleontological remains. No paleontological localities or unique geological features are known from the Proposed Project area or its immediate surroundings (University of California Museum of Paleontology 2020). There is a low likelihood of encountering paleontological resources or unique geologic features during Project construction. Therefore, the impact would be **less than significant**.

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3.8 GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

3.8.1 Regulatory Setting

Federal Laws, Regulations, and Policies

At the federal level, the USEPA has developed regulations to reduce GHG emissions from motor vehicles and has developed permitting requirements for large stationary emitters of GHGs. On April 1, 2010, USEPA and the NHTSA established a program to reduce GHG emissions and improve fuel economy standards for new model year 2012–2016 cars and light trucks. On August 9, 2011, USEPA and the NHTSA announced standards to reduce GHG emissions and improve fuel efficiency for heavy-duty trucks and buses. On October 15, 2012, USEPA and NHTSA established a program to reduce GHG emissions and improve fuel economy standards for new cars and light trucks through 2025 (USEPA 2012). In August 2016, USEPA and the NHTSA jointly finalized Phase 2 Heavy-Duty National Program standards to reduce GHG emissions and improve fuel efficiency of medium- and heavy-duty vehicles for model year 2018 and beyond (USEPA 2020). However, in August 2018, USEPA and the NHTSA proposed amendments to the standards covering model years 2021 – 2026 that would decrease the existing fuel efficiency requirements for those years and these amendments were finalized in March 2020 (NHTSA 2020).

State Laws, Regulations, and Policies

In recent years, California has enacted a number of policies and plans to address GHG emissions and climate change. In 2006, the California State Legislature enacted Assembly Bill (AB) 32, the Global Warming Solutions Act, which set the overall goals for reducing California's GHG emissions to 1990 levels by 2020. Senate Bill (SB) 32 codified an overall goal for reducing California's GHG emissions to 40 percent below 1990 levels by 2030. Executive Orders (EOs) S-3-05 and B-16-2012 further extend this goal to 80 percent below 1990 levels by 2050. The CARB has completed rulemaking to implement several GHG emission reduction regulations and continues to investigate the feasibility of implementing additional GHG emission reduction regulations. These include the low carbon fuel standard, which reduces GHG emissions associated with fuel usage, and the Renewable Portfolio Standard, which requires electricity suppliers to increase the amount of electricity generated from renewable sources to certain

thresholds by various deadlines. In 2018, SB 100 updated the Renewables Portfolio Standard to require 50 percent renewable resources by the end 2026, 60 percent by the end of 2030, and 100 percent renewable energy and zero carbon resources by 2045. EO B-55–18 signed by Governor Jerry Brown set a goal of statewide carbon neutrality by 2045 and net negative emissions thereafter.

CARB approved the *First Update to the AB 32 Scoping Plan* on May 22, 2014 (CARB 2014). This update defines climate change priorities for the next 5 years and also sets the groundwork to reach long-term goals set forth in EOs S-3-05 and B-16-2012. The update also highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals and evaluates how to align the state's longer term GHG reduction strategies with other state policy priorities for water, waste, natural resources, clean energy, transportation, and land use. In 2017, CARB further updated the Scoping Plan to reflect progress since 2005, additional reduction measures, and plans for reductions beyond 2020. CARB approved the *2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target* (CARB 2017) on December 14, 2017, to reflect the 2030 target set by EO B-30-15 and codified by SB 32 (CARB 2017, CARB 2018). The 2017 Scoping Plan includes further emission reductions from cap and trade, clean energy, doubling building energy efficiency, clean fuels, transit-oriented development, clean cars and transit, sustainable freight, reduction of methane and refrigerants, and restoration of natural and working lands.

Local Laws, Regulations, and Policies

City of Santa Clara Climate Action Plan and General Plan

The *City of Santa Clara Climate Action Plan* (2013) quantified GHG emissions, identified GHG emission reduction strategies, and defined an implementation and monitoring tool to address GHG emissions within the City and meet the 2020 GHG target goals. The City's Climate Action Plan identified additional actions to reduce GHG emissions beyond 2020 and achieve a GHG emission reduction goal of 55 percent below baseline levels by the year 2035 (City of Santa Clara 2013). Goals and policies applicable to the Proposed Project from the City's Climate Action Plan (2013) include a goal (Focus Area 5: Off Road Equipment) to ensure efficient operations of off-road equipment, and Policy 5.2, Alternative construction fuels, which requires construction projects to comply with BAAQMD best management practices, including alternative-fueled vehicles and equipment. Beginning in 2020, the City of Santa Clara began the process to update the 2013 Climate Action Plan (City of Santa Clara 2021).

The City of Santa Clara General Plan guides greenhouse gas emission and energy-related guidance for projects in the city of Santa Clara. Energy-related goals and policies are included in Section 3.6, "Energy." Policies in the general plan related to greenhouse gas emissions that may be applicable to the Proposed Project include the following (City of Santa Clara 2010):

5.10.2-G2: Reduced greenhouse gas emissions that meet the State and regional goals and requirements to combat climate change.

5.10.2-P4: Encourage measures to reduce greenhouse gas emissions to reach 30 percent below 1990 levels by 2020.

BAAQMD GHG Plans

The BAAQMD has adopted and released the Final 2017 Bay Area Clean Air Plan (also known as Spare the Air – Cool the Climate: A Blueprint for Clean Air and Climate Protection in the Bay Area) and Regional Climate Protection Strategy (RCPS) that updates the 2010 Bay Area Clean Air Plan; provides a road map for the BAAQMD's future efforts to reduce air pollution; and identifies rules, control measures, and strategies to reduce GHG emissions throughout the Bay Area. As part of this update, 85 control measures have been identified and categorized within nine economic sectors, including stationary sources, transportation, waste, water, and energy. Potential measures applicable to the Proposed Project include (but are not limited to) the reduction of solid waste and use of clean available construction equipment in local projects (BAAQMD 2017a).

In addition, the BAAQMD has established a Climate Protection Planning Program, which aims to achieve its goal of reducing GHG emissions in the Bay Area by establishing GHG reduction goals, developing and implementing the 2017 Clean Air Plan, and working with local governments (BAAQMD 2020a). The BAAQMD's GHG emission reduction goals are 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050 (BAAQMD 2020b).

BAAQMD GHG Significance Thresholds

The BAAQMD does not have a GHG threshold for construction but does have an operational GHG threshold of 1,100 $MTCO_2e$/year (BAAQMD 2017b). For the purposes of this analysis, emissions below the 1,100 $MTCO_2e$/year level were considered to not have a significant cumulative impact on climate change from GHG emissions. **Table 3.8-1** provides the BAAQMD's recommended significance criteria for analysis of GHG impacts, including cumulative impacts.

The 1,100 $MTCO_2e$/year threshold was established by BAAQMD by conducting a "gap" analysis, considering the emissions reductions required from projects undergoing CEQA review that are not otherwise addressed by existing regulations or strategies identified in the Scoping Plan. BAAQMD determined that, with a bright-line threshold of 1,100 $MTCO_2e$/year, most CEQA projects would be required to implement all feasible mitigation measures because they would exceed this threshold and, most importantly, that 92 percent of GHG emissions above this threshold would be captured (BAAQMD 2017b; Appendix A).

Sacramento Metropolitan Air Quality Management District (SMAQMD) initially conducted a similar analysis of the CEQA projects that would be captured by establishing a bright-line threshold for the 2020 goals. Recently, SMAQMD updated its analysis and determined that the existing bright-line threshold would still capture over 98 percent of GHG emissions (SMAQMD 2020). Thus, it would be reasonable to assume that an updated analysis by BAAQMD would find that projects would continue to achieve a high capture rate of total GHG emissions with use of this bright-line threshold. This conclusion supports the continued use of 1,100 $MTCO_2e$/year as a significance threshold post-2020 and indicates that continued progress toward the 2030 and 2050 goals is likely to be maintained with this bright-line threshold.

Table 3.8-1. Applicable BAAQMD CEQA Thresholds of Significance for GHGs

Pollutant	Operational Significance Thresholds
GHGs—projects other than stationary sources	a) Compliance with qualified GHG reduction strategy **OR** b) 1,100 metric tons (MT) of carbon dioxide equivalent (CO_2e) per year **OR** c) 4.6 MT CO_2e/service population (residents and employees) per year

Source: BAAQMD 2017b

3.8.2 Environmental Setting

Anthropogenic emissions of GHGs are widely accepted in the scientific community as contributing to global climate change. Temperature rises associated with climate change are expected to negatively impact plant and animal species, cause ocean acidification and sea level rise, affect water supplies, impact agriculture, and harm public health. California has contributed to GHG emissions and was estimated in 2018 by the CEC to be responsible for approximately 1 percent of the world's total GHG emissions (CEC 2018). California's total GHG emissions were estimated as 425 million $MTCO_2e$ in 2018 by CARB in its *California Greenhouse Gas Emissions for 2000 to 2018: Trends of Emissions and Other Indicators* document (CARB 2020).

In 2015, total Bay Area GHG emissions were 85 million metric tons of carbon dioxide equivalents (MMT CO_2e) which represents a decrease from the 86.6 MMT CO_2e estimated for 2011 emissions (BAAQMD 2015, BAAQMD 2017a). The transportation sector was the largest source of emissions, accounting for approximately 41 percent of the total 2015 emissions. Light and medium-duty cars and trucks accounted for 72 percent of emissions in the transportation sector while heavy duty truck accounted for 16 percent.

The City of Santa Clara's greatest GHG community emission sources were nonresidential (i.e., commercial and industrial sectors) (54%), transportation (24%), and community point sources (9%) in 2008 (City of Santa Clara 2013). In 2016, the commercial and industrial sector comprised 61% (1,080,261 $MTCO_2e$) of total emissions and transportation and mobile sources comprised 29% (505,989 $MTCO_2e$) of total emissions in the City (City of Santa Clara 2018). From 2008 to 2016, total GHG emissions from the City decreased by 85,122 $MTCO_2e$ (City of Santa Clara 2018).

3.8.3 Discussion of Checklist Responses

a. Generate a net increase in greenhouse gas emissions which may have a significant impact on the environment – Less than Significant

The Proposed Project would generate GHG emissions during construction activities from the combustion of fossil fuels associated with construction equipment operation, material hauling, and worker trips. Estimated emissions associated with the Project's activities would be 40.8 $MTCO_2e$. Emissions were estimated using the California Emission Estimator Model (CalEEMod) version 2016.3.2, which uses estimates from CARB's models for off-road vehicles and

EMFAC2014. Project assumptions, including equipment usage and schedule, used for this analysis are based on input from the Project design team and Chapter 2, *Project Description*. Appendix A contains compiled construction assumptions and the Proposed Project's GHG emissions estimates for construction activities.

The Proposed Project's GHG emissions would be substantially below the BAAQMD's significance threshold of 1,100 $MTCO_2e$/year (BAAQMD 2017b). Therefore, the Proposed Project would not generate substantial GHG emissions. This impact would be **less than significant**.

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? – Less than Significant

The State of California has implemented Assembly Bill 32, Senate Bill 32, and multiple Executive Orders to reduce GHG emissions. The Proposed Project does not pose any conflict with the most recent list of CARB's early action strategies, nor is it one of the sectors at which measures are targeted. The First Update to the Assembly Bill 32 Scoping Plan and the Final 2017 Scoping Plan Update (CARB 2017) do not mention similar projects as a specific target for additional strategies and the Proposed Project would not be required to report emissions to CARB. Therefore, emissions generated by the Proposed Project would not be expected to have a substantial contribution to the ongoing impact on global climate change. The Project does not involve a change in land use and is consistent with local general plan policies regarding land use and air quality planning goals. The Proposed Project would also not conflict with any of the goals or policies identified in the City of Santa Clara's adopted climate action plan (2013) or general plan (2010). For these reasons, the Proposed Project would not conflict with Assembly Bill 32 or Senate Bill 32, the local general plans, or any climate action plans. Additionally, per BMP AQ-2 (*Reduce Construction-related NOX Emissions*), the Proposed Project may include alternative fuel equipment during construction, and therefore would further comply with the City of Santa Clara's policies. Therefore, this impact would be **less than significant**.

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3.9 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:				
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 Section 65962.5 and, as a result, it creates a significant hazard to the public or the environment?	☐	☐	☐	☒
e. Be within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport and 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?	☐	☐	☒	☐

3.9.1 Regulatory Setting

Hazardous materials and hazardous wastes are subject to extensive federal, state, and local regulations to protect public health and the environment. These regulations provide definitions of hazardous materials; establish reporting requirements; set guidelines for handling, storage, transport, and disposal of hazardous wastes; and require health and safety provisions for workers and the public. The major federal, state, and regional agencies enforcing these

regulations are the USEPA; the Occupational Safety and Health Administration (OSHA); California Department of Toxic Substances Control (DTSC); California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA); California Governor's Office of Emergency Services (Cal OES); SWRCB; Bay Area RWQCB; and BAAQMD.

Federal Laws, Regulations, and Policies

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, also called the Superfund Act; 42 USC Section 9601 *et seq.*) is intended to protect the public and the environment from the effects of past hazardous waste disposal activities and new hazardous material spills. Under CERCLA, USEPA has the authority to seek the parties responsible for hazardous materials releases and to ensure their cooperation in site remediation. CERCLA also provides federal funding (through the "Superfund") for the remediation of hazardous materials contamination. The Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499) amends some provisions of CERCLA and provides for a Community Right-to-Know program.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) of 1976 (42 USC Section 6901 *et seq.*), as amended by the Hazardous and Solid Waste Amendments of 1984, is the primary federal law for the regulation of solid waste and hazardous waste in the United States. These laws provide for the "cradle-to-grave" regulation of hazardous wastes, including generation, transportation, treatment, storage, and disposal. Any business, institution, or other entity that generates hazardous waste is required to identify and track its hazardous waste from the point of generation until it is recycled, reused, or disposed of.

USEPA has primary responsibility for implementing RCRA, but individual states are encouraged to seek authorization to implement some or all RCRA provisions. California received authority to implement the RCRA program in August 1992. DTSC is responsible for implementing the RCRA program in addition to California's own hazardous waste laws, which are collectively known as the Hazardous Waste Control Law.

Energy Policy Act of 2005

Title XV, Subtitle B of the Energy Policy Act of 2005 (the Underground Storage Tank Compliance Act of 2005) contains amendments to Subtitle I of the Solid Waste Disposal Act, the original legislation that created the Underground Storage Tank (UST) Program. As defined by law, a UST is "any one or combination of tanks, including pipes connected thereto, that is used for the storage of hazardous substances and that is substantially or totally beneath the surface of the ground." In cooperation with USEPA, SWRCB oversees the UST Program. The intent is to protect public health and safety and the environment from releases of petroleum and other hazardous substances from tanks. The four primary program elements include leak prevention (implemented by Certified Unified Program Agencies [CUPAs], described in more detail below), cleanup of leaking tanks, enforcement of UST requirements, and tank integrity testing.

Occupational Safety and Health Administration

OSHA is responsible at the federal level for ensuring worker safety. OSHA sets federal standards for implementation of workplace training, exposure limits, and safety procedures for the handling of hazardous substances (as well as other hazards). OSHA also establishes criteria by which each state can implement its own health and safety program.

State Laws, Regulations, and Policies

Safe Drinking Water and Toxic Enforcement Act of 1986 – Proposition 65

The Safe Drinking Water and Toxic Enforcement Act of 1986, more commonly known as Proposition 65, protects the state's drinking water sources from contamination with chemicals known to cause cancer, birth defects, or other reproductive harm. Proposition 65 also requires businesses to inform the public of exposure to such chemicals in the products they purchase, in their homes or workplaces, or that are released into the environment. In accordance with Proposition 65, the California Governor's Office publishes, at least annually, a list of such chemicals. OEHHA, an agency under the California Environmental Protection Agency (CalEPA), is the lead agency for implementation of the Proposition 65 program. Proposition 65 is enforced through the California Attorney General's Office; however, district and city attorneys and any individual acting in the public interest may also file a lawsuit against a business alleged to be in violation of Proposition 65 regulations.

The Unified Program

The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of six environmental and emergency response programs. CalEPA and other state agencies set the standards for their programs, while local governments (CUPAs) implement the standards. For each county, the CUPA regulates/oversees the following:

- Hazardous materials business plans;
- California accidental release prevention plans or federal risk management plans;
- The operation of USTs and aboveground storage tanks;
- Universal waste and hazardous waste generators and handlers;
- On-site hazardous waste treatment;
- Inspections, permitting, and enforcement;
- Proposition 65 reporting; and
- Emergency response.

California Occupational Safety and Health Administration

Cal/OSHA assumes primary responsibility for developing and enforcing workplace safety regulations in California. Cal/OSHA regulations pertaining to the use of hazardous materials in the workplace (CCR Title 8) include requirements for safety training, availability of safety equipment, accident and illness prevention programs, warnings about exposure to hazardous substances, and preparation of emergency action and fire prevention plans. Hazard communication program regulations that are enforced by Cal/OSHA require workplaces to maintain procedures for identifying and labeling hazardous substances, inform workers about the hazards associated with hazardous substances and their handling, and prepare health and safety plans to protect workers at hazardous waste sites. Employers must also make material safety data sheets available to employees and document employee information and training programs. In addition, Cal/OSHA has established maximum permissible radiofrequency radiation exposure limits for workers (Title 8 CCR Section 5085[b]), and requires warning signs where radiofrequency radiation might exceed the specified limits (Title 8 CCR Section 5085 [c]).

California Department of Forestry and Fire Protection Wildland Fire Management

The Office of the State Fire Marshal and the California Department of Forestry and Fire Protection (CAL FIRE) administer state policies regarding wildland fire safety. Construction contractors must comply with the following requirements in the Public Resources Code during construction activities at any sites with forest-, brush-, or grass-covered land:

- Earthmoving and portable equipment with internal combustion engines must be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (Public Resources Code Section 4442).
- Appropriate fire-suppression equipment must be maintained from April 1 to December 1, the highest-danger period for fires (Public Resources Code Section 4428).
- On days when a burning permit is required, flammable materials must be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor must maintain the appropriate fire-suppression equipment (Public Resources Code Section 4427).
- On days when a burning permit is required, portable tools powered by gasoline-fueled internal combustion engines must not be used within 25 feet of any flammable materials (Public Resources Code Section 4431).

Local Laws, Regulations, and Policies

The *Santa Clara General Plan* guides hazards and hazardous materials in the City of Santa Clara. Policies in the general plan related to hazards and hazardous materials applicable to the Proposed Project include the following (City of Santa Clara 2010):

5.10.5-P24: Protect City residents from the risks inherent in the transport, distribution, use and storage of hazardous materials.

5.10.5-P25: Use Best Management Practices to control the transport of hazardous substances and to identify appropriate haul routes to minimize community exposure to potential hazards.

3.9.2 Environmental Setting

Adjacent land uses include commercial and office uses. A number of hazardous materials releases have occurred in the vicinity of the Project site and are discussed below.

Existing Hazards and Hazardous Materials

With regard to existing hazardous materials, based on the SRWCB's GeoTracker and the DTSC's EnviroStor databases, there are no hazardous material releases within the Proposed Project site itself. The vacant lot (Freedom Lot) located to the west of the Proposed Project was formerly used for agricultural purposes, and soils on the site were found to be contaminated with lead, arsenic, and the pesticide dieldrin (DTSC 2021a). The contaminated areas were covered with a clean soil/gravel cap or asphalt cap with a minimum thickness of 1 foot (DTSC 2021a). This area is covered by an Operation and Maintenance Agreement that requires annual cap inspections (DTSC 2021a).

Additional documented releases of hazardous materials located within one-quarter mile of the Proposed Project site include several clean-up sites:

- Fire Station #8, at 2400 Agnew Road, approximately 1,100 feet north of the Proposed Project. This site was a former leaking UST that released diesel to groundwater resources (SWRCB 2000).

- Intel D2 Energy Data Center, located at 3600 Juliette Lane, approximately 800 feet east of the Proposed Project. This site was a former leaking UST that released diesel (SWRCB 2001).

- Siliconix Inc, located at 2201 Laurelwood Road, approximately 1,150 feet southeast of the Proposed Project. This site has had a release of chlorinated hydrocarbons to soil and groundwater. Groundwater cleanup is ongoing (SWRCB 2002).

- Santa Clara Square Office 2 and 3, located at 2525 Augustine Drive, approximately 1,180 feet southwest of the Proposed Project. Similar to the Freedom Lot, this site has soil contaminated with arsenic, lead, and pesticides from past agricultural uses (DTSC 2021b). A cleanup occurred, in which contaminated soil was excavated and consolidated below caps (parking garages, buildings or 2 ft of clean soil in landscape areas) (DTSC 2021b).

Although the Proposed Project site is not included on the list of hazardous materials sites in accordance with Government Code Section 65962.5, there is the remote possibility that the agency-listed sites within one-quarter mile of the Project site have affected the soil or groundwater beneath the Project site given their relative location near San Tomas Aquino Creek and their status of being closed clean-up sites. Additionally, due to past agricultural uses in the area, as well as past industrial uses in the vicinity, undocumented hazardous materials may be present within the Proposed Project footprint.

Airports

The Norman Y. Mineta San Jose International Airport is located at 1701 Airport Boulevard, approximately 1.7 miles southeast of the Proposed Project. This a city-owned, public airport supporting domestic and international flights.

Wildfire Hazards

The region surrounding the Proposed Project is urban, developed land and is not within the Very High Fire Hazard Severity Zone (CAL FIRE 2007). Land immediately surrounding the Project site to the east is undeveloped and consists of shrubs and grassy areas. Additionally, there is a vegetated strip to the west of San Tomas Aquino Creek. The nearest fire station is Santa Clara Fire Department's Fire Station 8, located at 2400 Agnew Road, Santa Clara, CA 95054 (approximately 0.2 mile north of the Project site), approximately 2-minutes driving time to the Project site.

Sensitive Receptors

Sensitive receptors include hospitals, schools, daycare facilities, elderly housing and convalescent facilities, etc., where the occupants are more susceptible to the adverse effects of exposure to toxic chemicals, pesticides, and other pollutants. Extra care must be taken when dealing with contaminants and pollutants in close proximity to areas recognized as sensitive receptors.

The nearest sensitive receptors to the Project site are two schools are located within a 1-mile radius of the Project site including Singularity University (0.5 mile west) and Mission College (0.8 mile west). Additionally, a health care building, Stanford Primary Care, is located 0.16-mile northwest of the Project site.

3.9.3 Discussion of Checklist Responses

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials – Less than Significant

The Proposed Project includes removal of the Freedom Bridge, and associated post-removal site restoration. No activities would take place below ordinary high water of San Tomas Aquino Creek. The Proposed Project does not include any operational elements and does not include further activities following the final Phase II restoration components, and would thus not require the use or storage of hazardous items and materials that could pose a risk to human health and safety and the environment following the bridge removal.

However, construction activities for the Proposed Project would require on-site handling of hazardous materials, such as fuels, lubricating fluids, and solvents for use with construction equipment on-site. Accidental spills or improper use, storage, transport, or disposal of these hazardous materials could result in a public hazard or the transport of hazardous materials to the underlying soils and groundwater.

Although these hazardous materials could pose a hazard as described above, Proposed Project activities would be required to comply with extensive regulations so that substantial risks would not result. All storage, handling, and disposal of these materials would be done in accordance with regulations established by DTSC, USEPA, OSHA, Cal OES, CUPA, and Cal/OSHA.

The Proposed Project includes the following Valley Water BMPs (see Table 2-2): HM-1 (Restrict Vehicle and Equipment Cleaning to Appropriate Locations) and HM-2 (Ensure Proper Vehicle and Equipment Fueling and Maintenance), which requires that vehicles and equipment are washed only in approved areas and that no fueling or servicing of vehicles occurs in a waterway or immediate floodplain; and HM-3 (Ensure Proper Hazardous Materials Management) and HM-4 (Utilize Spill Prevention Measures), which includes measures that ensure that hazardous materials are properly handled and the quality of water resources is protected and that spill prevention measures are incorporated to prevent the accidental release of chemicals, fuels, lubricants, and non-storm drainage water. The Proposed Project also incorporates the following water quality BMPs including: WQ-1 (Conduct Work from Top of Bank), which requires that work activities be conducted from top of bank if there is flow in the channel; WQ-2 (Limit Impacts from Staging and Stockpiling Materials), which requires staging on previously disturbed areas; WQ-6 (Prevent Water Pollution), which requires oily, greasy, or sediment laden substances or other material that originates from project operations not be allowed to enter or be placed where it may enter a waterway. Implementation of these measures would minimize impacts on water quality.

Through implementation of the above-described BMPs and compliance with the applicable construction permit requirements, no significant risks would result to construction workers, the public, or the environment from the construction-related transport, use, storage, or disposal of hazardous materials. Therefore, this impact would be **less than significant**.

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 – Less than Significant with Mitigation

Construction activities associated with the Proposed Project, including grading and soil excavation, have the potential to come into contact with existing sources of contamination if any are present. While there are several sites with documented hazardous substance releases within one quarter mile of the Project site, none of these releases are of environmental concern to the Project site. However, due to past agricultural uses in the area, as well as past industrial uses in the vicinity, undocumented hazardous materials may be present within the Proposed Project footprint. Therefore, soil excavation activities would have a potential to expose construction workers or nearby sensitive receptors to on-site hazardous materials, if present, which could create a significant hazard through upset or accident conditions involving excavated materials. Implementation of Mitigation Measure HAZ-1 would minimize exposure of construction workers or sensitive receptors to on-site hazardous materials.

Mitigation Measure HAZ-1: Conduct Soils Testing for Hazardous Materials

Soils exposure during Phase II of the Proposed Project will be tested prior to removal to determine if hazardous levels of contaminants are present. The test results will be

compared against federal and state environmental screening levels (ESLs) for protection of human health, groundwater quality, and terrestrial receptors. If hazardous levels of contaminants (as defined by federal and state regulations) are present, the material will be taken to a permitted hazardous waste facility. The required handling, storage, and disposal methods shall depend on the types and concentrations of chemicals identified in the soil, and will be documented in a Soil Management Plan prepared by the contractor. Any site investigations or remedial actions shall comply with applicable laws.

The Proposed Project's construction would require the use, transport, and disposal of hazardous materials. As detailed above, compliance with the applicable regulations and implementation of the above-described BMPs, implementation of Mitigation Measure HAZ-1, and compliance with the applicable construction permit requirements would ensure that no substantial risks would result to construction workers, the public, or the environment from reasonably foreseeable upset or accident conditions involving the use of hazardous materials for the Proposed Project's construction activities. With implementation of Mitigation Measure HAZ-1, the impact from reasonably foreseeable upset or accident conditions involving the use of hazardous materials for the Proposed Project's construction activities would be **less than significant with mitigation.**

c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school – No Impact

The Proposed Project is not within one-quarter mile of an existing or proposed primary or secondary school. The nearest schools are Singularity University (approximately 0.5 mile east of the Proposed Project) and Mission College (approximately 0.7 mile east of the Proposed Project). Therefore, the Proposed Project would not result in a safety hazard to students or teachers, and there would be **no impact.**

d. Located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, create a significant hazard to the public or the environment – No Impact

The Proposed Project is not located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. However, as described above in Section 3.9.2, multiple unauthorized hazardous material release sites are present within a one-quarter mile radius of the Project site. The nearest site is located at the Freedom Lot, to the west of the site (DTSC 2010), with the next closest site being a former leaking underground storage tank at the former Intel Energy D2 Center located at 3600 Juliette Lane, approximately 800 feet east of the Project site (SWRCB 2001). The Freedom Lot site has been capped, and the Proposed Project does not include any activities on that site. Although residual soil and groundwater contamination was found at the D2 Center site, the case was deemed closed by the SWRCB in 2001 as levels did not appear to pose a significant risk (SWRCB 2001). Because the Project site is not included on the Cortese list of hazardous materials sites in accordance with Government Code § 65962.5, the Proposed Project would not create a hazard to the public or the environment. Therefore, there would be **no impact**.

e. Located within an airport land use plan area or, where such a plan has not been adopted, be within 2 miles of a private airport or public airport and result in a safety hazard or excessive noise for people residing or working in the study area – No Impact

The Proposed Project is not located within a designated Airport Safety Zone; however, it is located within the Airport Influence Area (Santa Clara County 2016). Proposed Project activities are limited to removal of the existing bridge, bridge abutments, and associated re-grading and re-paving in the vicinity of the abutments. Therefore, the Proposed Project would not be subject to a maximum structure height of 212 feet above mean sea level (Santa Clara County 2016). Thus, it would not involve construction of any buildings or structures, and would not create electrical or visual hazards, or thermal plumes. Therefore, the Proposed Project would not result in a safety hazard or excessive noise for people residing or working in the Project area, and there would be **no impact.**

f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan – Less than Significant

Construction-related employee vehicle trips and truck trips for the Proposed Project could potentially increase traffic on Mission College Boulevard over the duration of the construction period, which could impair the ability of emergency responders to reach their destinations. However, construction-related traffic would be temporary and only a limited number of employee vehicles and trucks would travel to and from the Project site on a daily basis. Access to the Project site and surrounding properties would be maintained at all times for fire and emergency response vehicles. Therefore, the impact on emergency response from construction-related activities associated with the Proposed Project would be **less than significant**.

g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires – Less than Significant

The area surrounding the Project site to the west primary consists of undeveloped land. Although the Proposed Project is not located in a Fire Hazard Severity Zone Local Responsibility Area, there are shrubs and grassy vegetation areas on the western and eastern perimeter of the Project site along San Tomas Aquino Creek. Thus, the Proposed Project's construction equipment within or near such areas could potentially present an ignition source and fire hazard; however, the Proposed Project would be required to comply with Public Resources Code requirements for construction activities at sites covered by trees, brush, or grass (see the discussion in Section 3.9, "Hazards and Hazardous Materials – Regulatory Setting," under "California Department of Forestry and Fire Protection Wildland Fire Management"). Compliance with these measures would minimize the potential to expose people or structures to a significant risk of wildland fires.

The Proposed Project would not add any structures susceptible to fire to the area. Implementation of BMP HM-5 (Incorporate Fire Prevention Measures) would reduce the risk of potential fires during high fire danger period. Therefore, the impact on wildfire-related risks from construction-related activities associated with the Proposed Project would be **less than significant**.

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3.10 HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Proposed 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?	☐	☐	☐	☒

3.10.1 Regulatory Setting

Federal Laws, Regulations, and Policies

Clean Water Act

The Clean Water Act (CWA) is the primary federal law that protects the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. The key sections pertaining to water quality regulation for the Proposed Project are CWA Section 303 and Section 402.

Section 303(d)—Listing of Impaired Water Bodies

Under CWA Section 303(d), states are required to identify "impaired water bodies" (those not meeting established water quality standards); identify the pollutants causing the impairment; establish priority rankings for waters on the list, and develop a schedule for the development of control plans to improve water quality. USEPA then approves the State's recommended list of impaired waters or adds and/or removes waterbodies. San Tomas Aquino Creek is listed as Category 5 impaired for excessive trash on the 303(d) list (State Water Resources Control Board [SWRCB] 2016).

Section 401

CWA Section 401 requires an evaluation of water quality when a proposed activity could result in a discharge to waters of the U.S. In California, the SWRCB and its nine Regional Water Quality Control Boards (RWQCB) issue water quality certifications. Each RWQCB is responsible for implementing Section 401 in compliance with the CWA and its water quality control plan (also known as a basin plan), as discussed below under the heading "Porter-Cologne Water Quality Control Act." Activities that might result in discharge to waters of the U.S. must obtain a Section 401 water quality certification to ensure that any such discharge would comply with the applicable provisions of the CWA. Section 401 water quality certifications for discharges in the project area are issued by the San Francisco Bay RWQCB.

State Laws, Regulations, and Policies

Porter–Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act (known as the Porter–Cologne Act), passed in 1969, dovetails with CWA (see discussion of the CWA above). It established SWRCB and divided the state into nine regions, each overseen by an RWQCB. SWRCB is the primary State agency responsible for protecting the quality of the state's surface water and groundwater supplies; however, much of the SWRCB's daily implementation authority is delegated to the nine RWQCBs, which are responsible for implementing CWA Section 401, 402, and 303[d]. In general, SWRCB manages water rights and regulates statewide water quality, whereas RWQCBs focus on water quality within their respective regions. The Proposed Project within the region subject to the jurisdiction of the San Francisco Bay RWQCB.

The Porter–Cologne Act requires RWQCBs to develop water quality control plans (also known as basin plans) that designate beneficial uses of California's major surface-water bodies and groundwater basins and establish specific narrative and numerical water quality objectives for

those waters. Beneficial uses represent the services and qualities of a waterbody (i.e. the reasons that the waterbody is considered valuable). Water quality objectives reflect the standards necessary to protect and support those beneficial uses. Basin plan standards are primarily implemented by regulating waste discharges so that water quality objectives are met.

3.10.2 Environmental Setting

The Proposed Project is located within the Coyote Watershed (Hydrologic Unit Code [HUC] 18050003) (USGS 2020). The watershed is primarily bounded by the Santa Cruz Mountains on the southwest and west, and the Diablo Range on the east. Drainages within the watershed typically flow north to San Francisco Bay. San Tomas Aquino Creek is a tributary to Guadalupe Slough, which flows into South San Francisco Bay. The San Tomas Aquino Watershed area is approximately 44.8 square miles and includes 15 different streams (Santa Clara Valley Urban Runoff Pollution Prevention Program 2020). Land uses surrounding the Proposed Project area is primarily commercial, parking lots, surface streets, and highways.

Topography and Climate

Topography of the Proposed Project area varies from 13 to 36 feet above mean sea level (msl), with an average elevation of 26 feet above msl. The Proposed Project area is generally flat with a slight northern trend. The surrounding streets, highways, and their municipal stormwater drainage systems, as well as levees along the creek serve as local hydrologic barriers. Similar to the surrounding Santa Clara County, the Proposed Project area experiences a Mediterranean climate with cooler wet winters and fog from the nearby San Francisco Bay, and temperate to warm dry summers. Average annual precipitation is 13.17 inches, which primarily falls between November and April (National Oceanic and Atmospheric Administration 2020).

Surface Water Hydrology and Quality

San Tomas Aquino Creek begins in the El Sereno Open Space Preserve on the east side of the crest of the Santa Cruz Mountains, roughly southwest of the City of Monte Sereno. The stream continues from its source northeast for approximately 7.3 miles, converging with several streams (including Wildcat Creek, Sobey Creek, Vasona Creek, Mistletoe Creek, and Smith Creek) and passes through the cities of Monte Sereno and Campbell, until it follows San Tomas Expressway north for another 5.6 miles through the cities of San Jose and Santa Clara. The stream diverges from San Tomas Expressway and converges with Saratoga Creek, after which it continues north for 1.4 miles where it enters the Proposed Project area. San Tomas Aquino Creek continues to flow north of the Proposed Project area for an additional 4.3 miles and enters Guadalupe Slough, which ultimately flows into South San Francisco Bay.

Water quality in the Proposed Project area is influenced by surrounding residential and commercial run-off and stormwater, which are the predominant land uses within the watershed. As mentioned in Section 1.10.1 above, San Tomas Aquino Creek is listed as impaired by trash on the 303(d) list (SWRCB 2016) from neighboring developed areas and homeless encampments. Within the Proposed Project, the creek maintains perennial flow that is augmented by urban and suburban run-off. San Tomas Aquino Creek drains into Guadalupe Slough, which is listed as impaired for water quality toxicity on the 303(d) list. Guadalupe Slough drains into South San Francisco Bay, which is listed as impaired by pesticides (Chlordane,

Dichlorodiphenyltricholoroethane [DDT], and Dioxin compounds), other organic compounds (Furan compounds), invasive species, and metals (Mercury and Selenium) on the 303(d) list (SWRCB 2016).

Stormwater

Stormwater systems surrounding the Proposed Project area are owned and maintained by the City of Santa Clara, and generally drain into the nearest stream. Stormwater from developed areas adjacent to the Proposed Project likely to drain into San Tomas Aquino Creek. No stormwater infrastructure is known to exist within the Proposed Project area.

Groundwater Levels, Flows, and Quality

The Proposed Project area overlies the Santa Clara Subbasin, which is within the Santa Clara Valley Groundwater Basin (California Department of Water Resources [DWR] Groundwater Basin Number 2-9.02), near the boundary of the Niles Cone Subbasin (DWR Groundwater Basin Number 2-9.01). The Santa Clara Valley Groundwater Basin, Santa Clara Subbasin, stretches from the northern border of Santa Clara County south to the Town of Morgan Hill, and from the Diablo Range west to the Santa Clara Mountains, for a total surface area of 240 square miles (DWR 2004). Unconsolidated to semi-consolidated Pliocene- to Holocene-age gravel, sand, silt, and clay from converging alluvial fans is the predominant water-bearing unit (DWR 2004). The local geology and soils underlying the Proposed Project area are described in Section 1.7, "Geology, Soils, and Seismicity." The Santa Clara Subbasin is largely unconfined except in the northern portion, where a semipermeable clay layer creates a confined zone. The Proposed Project area lies within a confined aquifer that transitions to an unconfined aquifer north of Highway 237 (Valley Water 2016a).

Because groundwater provides nearly half of the water supply for Santa Clara County and Valley Water is responsible for groundwater management of the Santa Clara and Llagas Subbasins, Valley Water maintains an extensive groundwater monitoring program to track aquifer quantity and quality. The Valley Water Groundwater Management Plan (2016a) outlines basin management objectives, strategies, and programs. Through widespread management of withdrawals, recharge, and deliveries from the State Water Project and Central Valley Project, groundwater levels within the Santa Clara Subbasin have increased since the early 1960s to reach sustainable levels despite a growing service area and population size.

Within the Proposed Project area, groundwater levels are expected to be approximately 0 to 10 feet below the surface (Valley Water 2020), and generally flows north toward San Francisco Bay. Groundwater levels may fluctuate in response to the tides, variations in rainfall, and the time of year. A review of the SWRCB Geotracker database indicated several past occurrences of groundwater contamination within 1,000 feet the project area, with one site under land use restriction that has been under remediation since 2002 for other chlorinated hydrocarbons and trichloroethylene. All other sites had minimal potential to affect water quality within the project area (SWRCB 2020). For additional discussion regarding groundwater contamination in the project vicinity, refer to Section 1.9, "Hazards and Hazardous Materials."

Floodplains and Tsunamis

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, the portion of the Proposed Project area immediately along and within the levees of San Tomas Aquino Creek is within a Special Flood Hazard Area Zone that is within the 100-year floodplain (i.e., an area in which there is a one percent chance per annum of a one hundred-year storm event). Other portions of the Proposed Project area are within Other Flood Areas (i.e., 0.2 percent chance of an annual flood, areas of one percent annual chance flood with average depths of less than one foot, or with drainage areas less than one square mile; and areas protected by levees from one percent annual chance flood) (FEMA 2019). The Proposed Project area is located in the dam inundation area for the Anderson Dam (Valley Water 2016b).

A tsunami is a series of long waves commonly caused by earthquakes or large landslides beneath the ocean. A tsunami can travel extremely quickly and can be substantially greater in height than normal waves, thereby causing flooding of inland areas. Several historic tsunamis have been recorded in San Francisco Bay, often originating from large earthquakes near Washington, Alaska, Japan, or other Pacific Rim areas. Since local bathymetry greatly influences the size of a tsunami, the effects on the Bay Area would not be uniform. For shoreline areas south of the Dumbarton Bridge/State Route 84, most tsunami impacts would be relatively minor, with flooding occurring only in some low-lying estuaries bordering South San Francisco Bay (National Oceanic Atmospheric Administration. 2010). The Proposed Project area is located approximately 4.9 miles south of South San Francisco Bay and approximately 5.5 miles outside of any identified tsunami hazard areas (California Emergency Management Agency 2009).

A seiche is a standing wave in an enclosed or partially enclosed body of water, such as a lake, bay, or estuary, which oscillates back and forth from one side of the waterbody to the other. The motion of a seiche is similar to that of water sloshing back and forth between the walls of a swimming pool. Seiches can be caused by earthquakes, tsunamis, very strong winds, and severe storm fronts. Even during a large seismic event, a seiche is not likely to affect the South San Francisco Bay region or the San Tomas Aquino Creek channel.

3.10.3 Discussion of Checklist Responses

a. Violate any water quality standards, waste discharge requirements or otherwise substantially degrade water quality – Less than Significant

Demolition

Bridge demolition and earth-disturbing activities adjacent to and within the San Tomas Aquino Creek channel could affect water quality and thereby result in adverse effects on beneficial uses identified by the San Francisco Bay RWQCB. Activities that would disturb levee material and remove vegetation could cause erosion and sediment transport downstream. Increased suspended sediment loads could increase turbidity, water temperature, and dissolved oxygen. Construction activities and use of equipment adjacent to the channel (e.g., bridge footing removal) could also lead to the unintentional release of construction debris, fuels, lubricants, solvents, or other pollutants into the channel. Additionally, disturbance of fill soils may contain contaminants or hazardous materials that may affect water quality of San Tomas Aquino Creek

or receiving waterbodies (i.e., Guadalupe Slough and San Francisco Bay). Phase I and II activities of the Proposed Project have potential to affect water quality.

The Proposed Project includes the following Valley Water BMPs (see Table 2-2): HM-1 (Restrict Vehicle and Equipment Cleaning to Appropriate Locations) and HM-2 (Ensure Proper Vehicle and Equipment Fueling and Maintenance), which requires that vehicles and equipment are washed only in approved areas and that no fueling or servicing of vehicles occurs in a waterway or immediate floodplain; and HM-3 (Ensure Proper Hazardous Materials Management) and HM-4 (Utilize Spill Prevention Measures), which includes measures that ensure that hazardous materials are properly handled and the quality of water resources is protected and that spill prevention measures are incorporated to prevent the accidental release of chemicals, fuels, lubricants, and non-storm drainage water. The Proposed Project also incorporates the following water quality BMPs including: WQ-1 (Conduct Work from Top of Bank), which requires that work activities be conducted from top of bank if there is flow in the channel; WQ-2 (Limit Impacts from Staging and Stockpiling Materials), which requires staging on previously disturbed areas; WQ-3 (Stabilize Construction Entrances and Exits), which requires measures are implemented to minimize soil from being tracked into streets near work sites; WQ-4 (Use Seeding for Erosion Control, Weed Suppression, and Site Improvement), which requires disturbed areas are seeded with native seed as soon as it is appropriate after activities are complete; WQ-5 (Maintain Clean Conditions at Work Sites), which requires that the work sites and access roads are maintained in an orderly condition; WQ-6 (Prevent Water Pollution), which requires oily, greasy, or sediment laden substances or other material that originates from project operations not be allowed to enter or be placed where it may enter a waterway; WQ-7 (Prevent Stormwater Pollution), which requires that measures be implemented to prevent stormwater pollution; and WQ-8 (Manage Sanitary and Septic Waste), which requires that temporary facilities are located on the job site to manage sanitary and septic waste. Implementation of these measures would minimize impacts on water quality.

Prior to initiation of the Proposed Project and throughout phases I and II, erosion control measures would be installed per the Proposed Project erosion control plan. The removal of a small amount of existing vegetation would be necessary during the Proposed Project, but these areas would be protected from eroding into the stream by erosion control measures, until they are permanently hydroseeded. Bank slopes and other surfaces within the work area would be restored to pre-existing contours immediately after each phase of the Proposed Project is completed. Any denuded or disturbed areas by the Proposed Project would be hydroseeded following completion of Phase II and associated slope contour restoration. Through implementation of the above-described BMPs and compliance with the applicable construction and stormwater permit requirements, the Project would not violate water quality standards or waste discharge requirements, or otherwise substantially degrade surface or groundwater quality during construction. Therefore, impacts on water quality would be **less than significant**.

Operation

The Proposed Project does not include any operational elements and does not include further activities following the final Phase II restoration components.

b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge, such that the project may impede sustainable groundwater management of the basin – No Impact

Bridge demolition under the Proposed Project would include water used for controlling dust, but it would not result in substantial water use over existing conditions. Implementation of phases I and II of the Proposed Project would not affect groundwater supplies or substantially interfere with baseline groundwater recharge rates. Additionally, the temporary disturbance and small footprint of the Proposed Project area would not have a substantial effect groundwater recharge within the basin. Therefore, the Proposed Project would have **no impact** on groundwater supplies, groundwater recharge, or 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 – Less than Significant

Vegetation clearing necessary for bridge demolition activities during phases I and II of the Proposed Project could temporarily increase the potential for erosion from exposed sediments as discussed in subsection (a) above. All phases of the Proposed Project would avoid the active San Tomas Aquino Creek channel. As described above, implementation of BMP's including WQ-1 (Conduct Work from Top of Bank), WQ-2 (Limit Impacts from Staging and Stockpiling Materials), WQ-3 (Stabilize Construction Entrances and Exits), WQ-4 (Use Seeding for Erosion Control, Weed Suppression, and Site Improvement), WQ-5 (Maintain Clean Conditions at Work Sites), WQ-6 (Prevent Water Pollution), and WQ-7 (Prevent Stormwater Pollution) have been incorporated into the Proposed Project. Implementation of these BMPs and erosion control measures would reduce the potential for soil erosion or siltation within the Proposed Project area. Therefore, impacts from erosion or siltation would be **less than significant**.

ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite – Less than Significant

The Proposed Project would not create new impervious surfaces nor compact soils to a level that would significantly alter infiltration rates. Ground disturbance would be limited to hand clearing vegetation with the shoring pads and mechanical vegetation removal and minor grading for the pedestrian and bicycle trail detour under Phase I. Under Phase II ground disturbance would include 130 linear feet (LF) of the gravel maintenance road east of the bridge and 110 LF of the asphalt San Tomas Aquino Trail west of the bridge. During both phases of the Proposed Project, erosion control measures would be implemented and slopes would be restored following demolition activities, as discussed under subsection (a) above. Gravel would be placed on the affected levee maintenance road east of the bridge and the San Tomas Aquino Trail would be paved with asphaltic concrete west of the bridge. The levee maintenance road and San Tomas Aquino Trail footprints affected by the Proposed Project would not result in a significant increase above baseline conditions. When necessary, upland soils exposed due to Proposed Project activities would be hydroseeded and stabilized. For these reasons, the Proposed Project would

not substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding. Therefore, this impact would 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 – Less than Significant

The Proposed Project is along and spanning a natural creek channel and would not create new impervious surfaces nor compact soils to a level that would increase runoff. Storage, use, and the accidental release of materials, fuels, and lubricants associated with Proposed Project-related activities have the potential to contribute to additional sources of pollution runoff during project implementation.

As discussed in subsection (a) above, implementation of Valley Water BMPs would require material storage and equipment be stored and maintained to prevent the introduction of pollutants into San Tomas Aquino Creek, thereby reducing the likelihood of polluted runoff draining to the creek. The potential for the Proposed Project to create or contribute runoff or additional sources of polluted runoff would be **less than significant**.

iv. impede or redirect flood flows – No Impact

Proposed Project activities involve the removal of the Freedom Bridge and associated levee slope restoration, and it would not substantially alter existing drainage patterns. The Proposed Project does not include the construction of buildings, structures, or other instream features that may impede or redirect flood flows. As a result, **no impact** would occur.

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

The Proposed Project would remove the Freedom Bridge, restore the levee maintenance road and the San Tomas Aquino Trail, and restore levee slopes. The Proposed Project is located approximately 4.9 miles from the San Francisco Bay and approximately 5.5 miles from the nearest tsunami hazard zone (California Emergency Management Agency 2009). Consequently, there is no risk of tsunami or seiche zones.

San Tomas Aquino Creek is designated as a Special Flood Hazard Area, Zone AE, from upstream of Highway 101 to its confluence with Guadalupe Slough (FEMA 2019). Additionally, the Proposed Project is also within the Anderson Dam inundation area, but much of the surrounding area is within this zone (Valley Water 2016b). However, Project activities would be temporary, occurring during the dry season (June 15 and October 15), when chances of flooding are relatively low. Further, no in-stream activities would occur. As a result, impacts would be **less than significant**.

e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan – No Impact

The Proposed Project is located within the Santa Clara Valley groundwater basin subject to Valley Water's 2016 Groundwater Management Plan, which is designed to sustainably maintain

and manage groundwater. Implementation of an erosion control plan and Valley Water's BMPs have been incorporated into the Proposed Project, both of which have been developed to be consistent with the San Francisco Bay Basin Water Quality Control Plan. Therefore, The Proposed Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. As a result, **no impact** would occur.

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3.11 LAND USE AND PLANNING

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:				
a. Physically divide an established community?	☐	☐	☐	☒
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

3.11.1 Regulatory Setting

No federal or state laws, regulations, or policies related to land use and planning are applicable to the Proposed Project. Local plans relevant to the proposed project include the City of Santa Clara General Plan, City of Santa Clara Bicycle Plan Update 2018, and City of Santa Clara Pedestrian Master Plan 2019.

Specific land use goals and the City of Santa Clara General Plan (2010) provides the framework for land use planning in the City and identifies land use designations that inform the City's zoning ordinance. The General Plan land use map (City of Santa Clara 2018) designates the Freedom Bridge location as Parks/Open Space, and the area for the pedestrian reroute as High Density Office/Research and Development (R&D). The land use designations for surrounding areas include High Density Office/R&D, Low Density Office/R&D, and Parks/Open Space.

The City of Santa Clara Bicycle Plan Update 2018 and City of Santa Clara Pedestrian Master Plan 2019 identify the San Tomas Aquino Creek Trail, which is located to the immediate west of the Freedom Bridge, as an existing Class I Shared Use Path (Alta Planning + Design 2019a and 2019b). The City of Santa Clara Bicycle Plan Update 2018 also identifies Mission College Boulevard, which is located to the north of the Proposed Project, and is where equipment will access the site, as an existing Class II Bicycle Lane (Alta Planning + Design 2019a).

Bicycle Plan objective/policies relevant to the Proposed Project are:

Objective 2.C: Enhance standard operating practices for installing new bicycle facilities and for bicycle facility maintenance.

Policy 2.C.4: Maintain bicycle lanes next to construction zones wherever feasible. The City's Complete Streets Policy shall be used as guidance and followed related to construction of projects.

3.11.2 Environmental Setting

The San Tomas Aquino Creek Trail, which is located to the west of the Freedom Bridge, is a Class I Shared Use Path (Alta Planning + Design 2019a). A Valley Water maintenance road is located to the east of the Freedom Bridge.

Land uses in the Proposed Project area include commercial and office uses. The Proposed Project site itself is currently used for flood protection and stormwater conveyance in the San Tomas Aquino Creek flood control channel, as well as recreational and transportation purposes along the trail and maintenance road, as well as on the Freedom Bridge. Intel and associated development such as parking lots and parking garages are located to the east of the Proposed Project. A vacant lot (formerly used as a parking lot for Intel employees, known as the Freedom Parking lot) is located to the west of the Freedom Bridge. An office park development is located further west, across Freedom Circle.

The Proposed Project site is designated Parks/Open Space and High-Intensity Office/Research and Development in the City of Santa Clara General Plan and is characterized by the engineered, earthen San Tomas Aquino Creek flood control channel, the San Tomas Aquino Creek trail to the west of the channel and the maintenance road to the east of the channel.

3.11.3 Discussion of Checklist Responses

a. Divide an established community – No Impact

Demolition of the Freedom Bridge would remove a pedestrian and cyclist crossing over San Tomas Aquino Creek that was initially constructed to allow pedestrian access from the Intel buildings located to the east of the bridge directly to the Freedom Parking lot that was located to the west of the bridge. Parking at the Freedom Parking lot has been discontinued, and a fence blocks access between the San Tomas Aquino Creek Trail and the vacant lot to the west (formerly the Freedom Parking lot). The bridge was not built as a means to connect the community. Existing levee trails would remain on either side of San Tomas Aquino Creek with cross-over connects at nearby streets in the community (e.g., approximately 960 feet north of the Proposed Project site at Mission College Boulevard). Therefore, removal of the bridge would not divide an established community. There would be **no impact.**

During Phase I, pedestrians and bicyclists would be excluded from the work area, but would be able to travel along the paved San Tomas Aquino Trail to the west of the bridge. During Phase II, the San Tomas Aquino Creek Trail would be closed between Agnew Road and Scott Boulevard, and pedestrians and bicyclists would be routed along the detour shown in Figure 2-3. Thus pedestrian and bicyclist access would be maintained throughout Proposed Project implementation.

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? – No Impact

The Proposed Project would not introduce new land uses or result in land use changes. Following Proposed Project implementation, use of the San Tomas Aquino Creek Trail and the maintenance road would continue similar to existing conditions.

The Proposed Project would be consistent with the policies of the City of Santa Clara Bicycle Plan, including maintaining bicycle lanes next to construction zones wherever feasible. During Project construction, pedestrians and bicyclists would be excluded from the work area to ensure public safety. During Phase I, pedestrians and bicyclists would be excluded from the work area, but would be able to utilize the paved San Tomas Aquino Creek Trail on the west side of San Tomas Aquino Creek. During Phase II, both sides of the creek in the vicinity of the Proposed Project would need to be excluded from pedestrian and bicycle access. A temporary detour route would be established and posted for pedestrians and bicyclists as shown in Figure 2-3. Thus, there would be no conflicts with land use plans, policies, or regulations and **no impact** would occur.

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3.12 MINERAL RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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?	☐	☐	☐	☒
Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

3.12.1 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal regulations are applicable to mineral resources in relation to the Proposed Project.

State Laws, Regulations, and Policies

The Division of Mine Reclamation was created under the Surface Mining and Reclamation Act (SMARA) (Public Resources Code, Sections 2710-2796) and it provides regulatory oversight under SMARA. The Division of Mine Reclamation is tasked with assuring that adverse environmental impacts are minimized, returning abandoned mines to a usable and safe condition, as well as addressing other issues associated with abandoned mines through the Abandoned Mine Lands Unit.

3.12.2 Environmental Setting

The City of Santa Clara is located within an area zoned as Mineral Resource Zone (MRZ)-1 for aggregate materials by the State of California (Kohler-Antablin 1996). MRZ-1 zones are defined as areas where adequate information indicates that no significant mineral deposits are present or that are considered to have little possibility of their presence. The City is not known to support significant mineral resources of any other type (City of Santa Clara 2011). The State Office of Mine Reclamation's list of mines (the Assembly Bill 3098 List) subject to regulation under the SMARA does not list any mines within the City (State Office of Mine Reclamation 2020.).

A U.S. Geological Survey study that reviewed information from historic exploratory oil wells drilled in the Santa Clara Valley and recent deep borings, and it found that none of the wells were located within the City. It also found no evidence suggesting the presence of exploitable oil or gas resources with the City (U.S. Geological Survey 2002). The State's Division of Oil, Gas, and

Geothermal Resources records show no historic or active gas, oil, or geothermal wells within the City (Department of Conservation, Division or Oil, Gas, and Geothermal Resources. 2002).

3.12.3 Discussion of Checklist Responses

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 – No Impact

Since the Proposed Project area does not contain any mineral resources, implementation of the Proposed Project would not result in the loss or availability of a known mineral resource that would be of value to the region and state residents. Therefore, the Proposed Project would have **no impact** on the availability of mineral resources.

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 – No Impact

As mentioned above, no known mineral resource recovery sites are located within the City of Santa Clara or in the Proposed Project. Based on this information, the Proposed Project is not expected to result in the loss of availability delineated in a local general plan, specific plan, or other land use plan. Therefore, the Proposed Project would have **no impact** to the availability of known mineral resources.

3.13 NOISE

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project result in:				
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 area, or, where such a plan has not been adopted, within 2 miles of a public airport or public-use airport, would the project expose people residing or working in the project site to excessive noise levels?	☐	☐	☒	☐

3.13.1 Overview of Noise and Vibration Concepts and Terminology

Noise

In the CEQA context, noise can be defined as unwanted sound. Sound is characterized by various parameters, including the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level is the most common descriptor used to characterize the loudness of an ambient sound level, or sound intensity. The decibel (dB) scale is used to quantify sound intensity. Because sound pressure can vary enormously within the range of human hearing, a logarithmic scale is used to keep sound intensity numbers at a convenient and manageable level. The human ear is not equally sensitive to all frequencies in the spectrum, so noise measurements are weighted more heavily for frequencies to which humans are sensitive, creating the A-weighted decibel (dBA) scale.

Different types of measurements are used to characterize the time-varying nature of sound. Below are brief definitions of these measurements and other terminology used in this chapter.

- **Decibel (dB)** is a measure of sound on a logarithmic scale that indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude.

- **A-weighted decibel (dBA)** is an overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
- **Maximum sound level (L_{max})** is the maximum sound level measured during a given measurement period.
- **Minimum sound level (L_{min})** is the minimum sound level measured during a given measurement period.
- **Equivalent sound level (L_{eq})** is the equivalent steady-state sound level that, in a given period, would contain the same acoustical energy as a time-varying sound level during that same period.
- **Day-night sound level (L_{dn})** is the energy average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the A-weighted sound levels during the period from 10:00 p.m. to 7:00 a.m. (typical sleeping hours). This weighting adjustment reflects the elevated sensitivity of individuals to ambient sound during nighttime hours.
- **Community noise equivalent level (CNEL)** is the energy average of the A-weighted sound levels during a 24-hour period, with 5 dB added to the A-weighted sound levels between 7:00 p.m. and 10:00 p.m. and 10 dB added to the A-weighted sound levels between 10:00 p.m. and 7:00 a.m.

In general, human sound perception is such that a change in sound level of 3 dB is barely noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving the sound level. **Table 3.13-1** presents approximate noise levels for common noise sources, measured adjacent to the source.

Table 3.13-1. Examples of Common Noise Levels

Common Outdoor Activities	Noise Level (dBA)
Jet flyover at 1,000 feet	110
Gas lawnmower at 3 feet	100
Diesel truck at 50 feet traveling 50 miles per hour	90
Noisy urban area, daytime	80
Gas lawnmower at 100 feet, commercial area	70
Heavy traffic at 300 feet	60
Quiet urban area, daytime	50
Quiet urban area, nighttime	40
Quiet suburban area, nighttime	30
Quiet rural area, nighttime	20

Notes: Caltrans = California Department of Transportation; dBA = A-weighted decibel.

Source: Caltrans 2013a, 2013b

Vibration

Groundborne vibration propagates from the source through the ground to adjacent buildings by surface waves. Vibration may be composed of a single pulse, a series of pulses, or a continuous oscillatory motion. The frequency of a vibrating object describes how rapidly it is oscillating, measured in Hertz (Hz). Most environmental vibrations consist of a composite, or "spectrum," of many frequencies. The normal frequency range of most groundborne vibrations that can be felt generally starts from a low frequency of less than 1 Hz to a high of about 200 Hz. Vibration information for this analysis has been described in terms of the peak particle velocity (PPV), measured in inches per second, or of the vibration level measured with respect to root-mean-square vibration velocity in decibels (VdB), with a reference quantity of 1 micro-inch per second.

Vibration energy dissipates as it travels through the ground, causing the vibration amplitude to decrease with distance away from the source. High-frequency vibrations attenuate much more rapidly than do those characterized by low frequencies, so that in a far-field zone distant from a source, the vibrations with lower frequency amplitudes tend to dominate. Soil properties also affect the propagation of vibration. When groundborne vibration interacts with a building, a ground-to-foundation coupling loss usually results but the vibration also can be amplified by the structural resonances of the walls and floors. Vibration in buildings is typically perceived as rattling of windows, shaking of loose items, or the motion of building surfaces. In some cases, the vibration of building surfaces also can be radiated as sound and heard as a low-frequency rumbling noise, known as groundborne noise.

Groundborne vibration is generally limited to areas within a few hundred feet of certain types of industrial operations and construction/demolition activities, such as pile driving. Road vehicles rarely create enough groundborne vibration amplitude to be perceptible to humans unless the receiver is in immediate proximity to the source or the road surface is poorly maintained and has potholes or bumps. Human sensitivity to vibration varies by frequency and by receiver. Generally, people are more sensitive to low-frequency vibration. Human annoyance also is related to the number and duration of events; the more events or the greater the duration, the more annoying it becomes.

3.13.2 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal laws, regulations, or policies for construction-related noise and vibration that apply to the Proposed Project. However, the Federal Transit Administration (FTA) Guidelines for Construction Vibration in Transit Noise and Vibration Impact Assessment state that for evaluating daytime construction noise impacts in outdoor areas, a noise threshold of 90 dBA L_{eq} and 100 dBA L_{eq} should be used for residential and commercial/industrial areas, respectively (FTA 2018).

For construction vibration impacts, the FTA guidelines use an annoyance threshold of 80 VdB for infrequent events (fewer than 30 vibration events per day) and a damage threshold of 0.12 inches per second (in/sec) PPV for buildings susceptible to vibration damage, 0.2 PPV for non-engineered timber and masonry buildings, 0.3 PPV for engineered concrete and masonry, and 0.5 PPV for reinforced-concrete, steel or timber (FTA 2018).

State Laws, Regulations, and Policies

California requires each local government entity to implement a noise element as part of its general plan. California Administrative Code, Title 4, presents guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. The state land use compatibility guidelines are listed in **Table 3.13-2**.

Local Laws, Regulations, and Policies

City of Santa Clara Noise Ordinance

The City of Santa Clara's Noise Ordinance contains the following laws and standards that may be relevant to the Proposed Project (City of Santa Clara 2020):

9.10.060 Noise, sound, or vibration evaluation criteria.

(a) The characteristics and conditions which will be considered in determining whether a violation of the provisions of this chapter exists shall include, but not be limited to the following:

(1) The volume level of the noise or amplitude of the vibration;

(2) Whether the nature of the noise or vibration is usual or unusual;

(3) Whether the origin of the noise or vibration is from a natural source or mechanical source;

(4) The level of the ambient noise;

(5) The proximity of the noise or vibration to sleeping facilities;

(6) The nature and zoning of the area from which the noise or vibration emanates and the area where it is received;

(7) The time of day or night the noise or vibration occurs;

(8) The duration of the noise or vibration; and

(9) Whether the noise or vibration is recurrent, intermittent, or constant.

9.10.070 Exceptions.

The provisions of this chapter shall not apply to noise, sound or vibration created by the following:

(e) Construction activities which occur during allowed hours, as otherwise specified in the Code.

9.10.230 Regulation.

No person shall engage or authorize others to engage in construction of any building or related road or walkway, pool or landscape improvement, or in construction operations related thereto, including delivery of construction materials, supplies, or improvements on or to a construction site within three hundred (300) feet of any residentially zoned property except within the hours of 7:00 A.M. to 6:00 P.M. following on weekdays other than holidays, Monday through Friday, inclusive; and within the hours of 9:00 A.M. to 6:00 P.M. following, inclusive, on any Saturday which is not a holiday.

City of Santa Clara General Plan

The City of Santa Clara General Plan guides noise compliance for projects in the City of Santa Clara. Policies in the general plan related to noise that may be applicable to the Proposed Project include the following (City of Santa Clara 2010):

5.10.6-G1: Noise sources restricted to minimize impacts in the community.

5.10.6-G2: Sensitive uses protected from noise intrusion.

5.10.6-P2: Incorporate noise attenuation measures for all projects that have noise exposure levels greater than General Plan “normally acceptable” levels.

Table 3.13-2. State Land Use Compatibility Standards for Community Noise Environment

Land Use Category	Community Noise Exposure - L_{dn} or CNEL (dB)						
	55	60	65	70	75	80	
Residential – Low Density Single Family, Duplex, Mobile Homes							
Residential – Multi-Family							
Transient Lodging – Motels, Hotels							
Schools, Libraries, Churches, Hospitals, Nursing Homes							
Auditoriums, Concert Halls, Amphitheaters							
Sports Arenas, Outdoor Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Courses, Riding Stables, Water Recreation, Cemeteries							
Office Buildings, Business Commercial and Professional							
Industrial, Manufacturing, Utilities, Agriculture							

Normally Acceptable	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
Conditionally Acceptable	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
Normally Unacceptable	New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
Clearly Unacceptable	New construction or development generally should not be undertaken.

Notes: CNEL = community noise equivalent level; dB = decibel; L_{dn} = day-night sound level.

Source: California Governor's Office of Planning and Research 2017

3.13.3 Environmental Setting

The primary sources of noise within the City of Santa Clara are major freeways and arterial roadways traversing the City (Highway 101, Central Expressway, Lawrence Expressway, San Tomas Expressway, and Montague Expressway), Union Pacific rail lines, and aircraft overflights from the Norman Y. Mineta San José International Airport (City of Santa Clara 2011). Another source of potentially annoying noise are industrial facilities (City of Santa Clara 2011).

The City of Santa Clara defines sensitive receptors as persons who are particularly sensitive to the effects of air pollutants, such as children, the elderly, the acutely ill and chronically ill, adults with mental or physical disabilities, as well as land use categories where these people may spend a significant amount of time (City of Santa Clara 2010). Types of land use categories inclusive of sensitive receptors include residences, schools, playgrounds, child-care or senior daycare centers, hospitals, retirement homes and convalescent homes. Adjacent land uses to the Proposed Project site include commercial and office uses. Sensitive receptors within 2,000 feet of the Proposed Project site include recreationists, medical facilities, a museum, and residences. Distances to these receptors as measured from the center of the Proposed Project site are as follows: recreationists on the San Tomas Aquino Creek Trail (100 feet west), Stanford Healthcare (approximately 900 feet northwest), Intel Museum (1,600 feet northeast), and the Santa Clara Square Apartments (1,620 feet south). The nearest daycare/preschool is Knowledge Preschool, located 3,020 feet northeast of the project's center. There are no elementary, middle school, or high schools within 5,000 feet of the project site. Highway 101 is located 950 feet south of the Proposed Project site.

The Norman Y. Mineta San Jose International Airport is located at 1701 Airport Boulevard, approximately 1.7 miles southeast of the Proposed Project. This is a city-owned, public airport supporting domestic and international flights. Areas of Santa Clara County, including the Proposed Project site, are within the Airport Influence Area for the San Jose International Airport as identified in the Santa Clara County Airport Land Use Commission's Comprehensive Land Use Plan (2016). The project is just outside of areas with ambient noise levels (CNELs) influenced by the airport (Santa Clara County Airport Land Use Commission 2016).

The primary noise sources near the project site are Highway 101 and Mission College Boulevard. Ambient noise in the project site is also influenced by the nearby commercial and recreational activities (i.e., landscape maintenance, delivery vehicles, people talking, parking lot vehicle movements, and car doors closing). The project site is located within the 65-70 dBA noise contour on the 2035 Ground Transportation Noise Contours for Major Roadways and Railroads provided in the City of Santa Clara's General Plan EIR (City of Santa Clara 2011).

3.13.4 Discussion of Checklist Reponses

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 – Less than Significant

The Proposed Project would generate noises associated with construction activities, which would be temporary and cease once construction is complete. There would be no operational noise sources.

The Proposed Project would be consistent with the City of Santa Clara's Noise Ordinance, which provides specific allowable hours for noise from construction activities and construction equipment from 7:00 a.m. to 6:00 p.m. Mondays – Friday and 9:00 a.m. to 6:00 p.m. on Saturdays other than holidays, for activities within 300 feet of residentially zoned property. The Proposed Project is located in a largely commercial/industrial area and approximately 1,600 feet from the nearest residential property (Santa Clara Square Apartments). The Proposed Project's construction activities would comply with the ordinance's construction period restrictions.

As discussed further below, noise levels and subsequent impacts from the Proposed Project are analyzed based on estimated noise levels from the operation of the two loudest pieces of construction equipment as measured from the center of the project site. This impact methodology follows recommended construction noise analysis methods (FTA 2018).

Further discussion of the anticipated noise associated with Proposed Project's construction and consistency with relevant guidance, is provided below.

Construction

Because a recreational area (San Tomas Aquino Creek Trail) is located immediately west and office areas are located immediately east of the Proposed Project site, an evaluation of the noise levels compared to the values recommend by FTA was also conducted. The FTA has established guidance on noise and vibration impact assessments for construction equipment (FTA 2018). The FTA recommends that for a rough estimate of construction noise levels that the noisiest two pieces of equipment be used to analyze the anticipated noise levels at sensitive receptors assuming the following:

- full power operation for a full one hour is assumed,
- there are no obstructions to the noise travel paths,
- typical noise levels from construction equipment are used, and
- all pieces of equipment are assumed to operate at the center of the project site.

Using these assumptions, the noise levels at specific distances can be obtained using the following equation:

$$L_{eq}(equip) = EL_{50ft} - 20log_{10}(D/50)$$

Where:

L_{eq} (equip) = the noise emission level at the receiver at distance D over 1 hour.

EL_{50ft} = noise emission level of a particular piece of equipment at reference distance of 50 feet.

D = the distance from the receiver to the piece of equipment in feet.

In order to add the two noisiest pieces of equipment together, the following equation applies:

$$L_{total} = 10\ log_{10}(10^{\frac{L1}{10}} + 10^{\frac{L2}{10}})$$

Where:

L_{total} = The noise emission level of two pieces of equipment combined

L1 = The noise emission level of equipment type 1

L2 = The noise emission level of equipment type 2

Noise levels at the Proposed Project's nearest sensitive receptors generated by equipment used during project construction were estimated using the FTA reference guide (FTA 2018). Noise modeling results are provided in Appendix C. The values used for the reference noise level at 50 feet were both 85 dBA (crane/paver/roller).

Using the equations above and the two noisiest pieces of equipment, the noise levels at the nearest receptor (recreationists on San Tomas Aquino Creek Trail), located 100 feet west of the center of the project site, would be less than the FTA's 90 dBA threshold, which is used as the basis for determining impacts. Receptors within 39 feet of the site would experience noise levels above 90 dBA, which is the FTA's noise limit. However, there are no sensitive receptors located within the FTA threshold distance of 39 feet to the center of the Project site. Additionally, recreationists would be routed around the Proposed Project area during Phase II of the project, when the majority of heavy equipment would be used. In addition, the Proposed Project's construction activities would operate within the City of Santa Clara's allowable construction periods.

The City of Santa Clara exempts construction activities from complying with its noise limits as long as construction activities take place within the allowable construction time periods. In addition, Project construction activities would be temporary and anticipated to occur for up to 54 days. The use of heavy construction equipment would be temporary and episodic. For these reasons, and because such work would be consistent with the City's noise standards, the temporary increases in ambient noise levels associated with construction would be **less than significant**.

b. Generation of excessive groundborne vibration or groundborne noise levels – Less than Significant

The Proposed Project's construction activities would involve the use of equipment including trucks used for hauling away material or transporting equipment and construction equipment, such as rollers, that may generate groundborne vibration. At any given sensitive receptor, groundborne vibration from equipment and trucks hauling away material or transporting equipment, would be limited in duration and infrequent. Section 9.10.070 of the City of Santa Clara Noise Ordinance exempts temporary construction activities from the vibration standard. Therefore, the generation of groundborne vibration from the Proposed Project's activities would be **less than significant**.

e. For a project located within the vicinity of a private airstrip or an airport land use plan area, or, within 2 miles of a public airport or public-use airport, would the project expose people residing or working in the project site to excessive noise levels – Less than Significant

The Proposed Project is located approximately 1.7 miles northwest of the Norman Y. Mineta San Jose International Airport; however, it is immediately west and outside of the lowest CNEL noise contour provided in the Norman Y. Mineta San Jose International Airport Comprehensive Land Use Plan (Santa Clara County Airport Land Use Commission 2016). The Proposed Project is not located in any other airport land use compatibility plans. The Proposed Project would only involve construction activities and no operational activities. There would be no individuals residing in the project site. Therefore, the Proposed Project would be compatible with the airport land use compatibility plan and the Project would not expose people working in the project site to excessive noise levels from the Norman Y. Mineta San Jose International Airport. This impact would be **less than significant**.

There are no private airstrips located near the project. Therefore, the Proposed Project would not expose people working in the project site to excessive noise levels from private airstrips

3.14 POPULATION AND HOUSING

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:				
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.14.1 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal or state regulations are applicable to population and housing in relation to the Proposed Project.

3.14.2 Environmental Setting

The City of Santa Clara's population is currently estimated at 130, 371 as of July 1, 2018 (U.S. Census Bureau 2019). There are approximately 45,577 housing units in which approximately 50, 936 units are occupied (U.S. Census Bureau 2019).

The Project site is abutted by commercial buildings directly east of Freedom Bridge along San Tomas Aquino Creek. To the west, the Project site is abutted by a commercial complex (including multiple office buildings) on Freedom Circle. No residential housing or apartment complexes are located within the immediate vicinity of the Project site.

3.14.3 Discussion of Checklist Responses

a. Induce unplanned population growth – No Impact

The Proposed Project would not involve any activities that would directly increase population growth, such as new housing. It is expected that the local or regional labor force would be sufficient to meet the construction workforce demand associated with the Proposed Project. As a result, the Proposed Project would not result in a substantial increase in the City's population. Therefore, the Proposed Project would have **no impact.**

b. Displace a substantial number of existing people or housing – No Impact

The Proposed Project includes bridge and associated facilities removal and regrading and repaving of the existing pedestrian and bicycle path in the immediate vicinity of the Freedom Bridge. Implementation of the Proposed Project would not displace any residents or housing units, and no replacement housing would be needed. Therefore, the Proposed Project would have **no impact**.

3.15 PUBLIC SERVICES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:				
a. 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:				
i. Fire protection?	☐	☐	☐	☒
ii. Police protection?	☐	☐	☐	☒
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☐	☒
v. Other public facilities?	☐	☐	☒	☐

3.15.1 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal regulations are applicable to public services in relation to the Proposed Project.

State Laws, Regulations, and Policies

California Fire Code

The California Fire Code (Title 24 CCR, Part 9) establishes minimum requirements to safeguard public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings. Chapter 33 of the CCR contains requirements for fire safety during construction and demolition as follows:

> **3304.1 Smoking.** Smoking shall be prohibited except in approved areas. Signs shall be posted in accordance with Section 310. In approved areas where smoking is permitted, approved ashtrays shall be provided in accordance with Section 310.

3304.2 Combustible debris, rubbish and waste. Combustible debris, rubbish and waste material shall comply with the requirements of Sections 3304.2.1 through 3304.2.4.

3304.2.1 Combustible waste material accumulation. Combustible debris, rubbish and waste material shall not be accumulated within buildings.

3304.2.2 Combustible waste material removal. Combustible debris, rubbish and waste material shall be removed from buildings at the end of each shift of work.

3304.2.3 Rubbish containers. Where rubbish containers with a capacity exceeding 5.33 cubic feet (40 gallons) (0.15 m3) are used for temporary storage of combustible debris, rubbish and waste material, they shall have tight-fitting or self-closing lids. Such rubbish containers shall be constructed entirely of materials that comply with either of the following:

1. Noncombustible materials.
2. Materials that meet a peak rate of heat release not exceeding 300 kilowatt per square meter (kW/m2) when tested in accordance with ASTM E1354 at an incident heat flux of 50kW/m2 in the horizontal orientation.

3304.2.4 Spontaneous ignition. Materials susceptible to spontaneous ignition, such as oily rags, shall be stored in a listed disposal container.

3304.6 Cutting and welding. Operations involving the use of cutting and welding shall be done in accordance with Chapter 35.

3304.7 Electrical. Temporary wiring for electrical power and lighting installations used in connection with the construction, alteration or demolition of buildings, structures, equipment or similar activities shall comply with the California Electrical Code.

3308.1 Program superintendent. The owner shall designate a person to be the fire prevention program superintendent who shall be responsible for the fire prevention program and ensure that it is carried out through completion of the Project. The fire prevention program superintendent shall have the authority to enforce the provisions of this chapter and other provisions as necessary to secure the intent of this chapter. Where guard service is provided, the superintendent shall be responsible for the guard service.

3308.2 Prefire plans. The fire prevention program superintendent shall develop and maintain an approved prefire plan in cooperation with the fire chief. The fire chief and the fire code official shall be notified of changes affecting the utilization of information contained in such prefire plans.

3310.1 Required access. Approved vehicle access for firefighting shall be provided to all construction or demolition sites. Vehicle access shall be provided to within 100 feet of temporary or permanent fire department connections. Vehicle access shall be provided by either temporary or permanent roads, capable of support vehicle loading under all weather conditions. Vehicle access shall be maintained until permanent fire apparatus access roads are available.

3316.1 Conditions of use. Internal combustion–powered construction equipment shall be used in accordance with all of the following conditions:

1. Equipment shall be located so that exhausts do not discharge against combustible material.
2. Exhausts shall be piped to the outside of the building.
3. Equipment shall not be refueled while in operation.
4. Fuel for equipment shall be stored in an approved area outside of the building.

3.15.2 Environmental Setting

The Proposed Project is located entirely within the City of Santa Clara and is under to the jurisdiction of City of Santa Clara's Police Department and Fire Department. The Proposed Project is within the Santa Clara Unified School District. The San Tomas Aquino pedestrian and bicyclist trail is located atop the western levee along San Tomas Aquino Creek and a segment is located within the Proposed Project. No parks are located near the Proposed Project.

3.15.3 Discussion of Checklist Responses

a. Result in adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities – No Impact/ Less than Significant

i. Fire protection

Activities associated with the Proposed Project would not contribute to an increased need for fire protection services, since the Proposed Project would not contribute to population growth or other long-term land use modifications. Therefore, the Proposed Project would have **no impact** to fire protection services.

ii. Police protection

Activities associated with the Proposed Project would not contribute to an increased need for police protection services, since the Proposed Project would not contribute to population growth or other long-term land use modifications. Therefore, the Proposed Project would have **no impact** to police protection services.

iii. Schools

The nearest classroom at the Place3rd School is over 1,400 feet from the Proposed Project. The Proposed Project includes short-term construction activities that would not affect existing school facilities or result in long-term effects to existing school facilities. The Proposed Project would not contribute to any change in population, or other land use modifications that would impact the Santa Clara Unified School District. Therefore, there would be **no impacts** associated with the need to expand any existing school facilities.

iv. Parks

The Proposed Project would not result in significant impacts associated with new or physically altered park facilities necessary to maintain adequate recreational facilities for residents. Therefore, there would be **no impact** on parks.

v. Other public facilities

During Phase I, pedestrians and bicyclists would be excluded from the work area, but would be able to travel along the paved San Tomas Aquino Trail to the west of the bridge. During Phase II, the San Tomas Aquino Creek Trail would be closed to through traffic between Agnew Road and Scott Boulevard, and pedestrians and bicyclists would be routed along the detour shown in Figure 2-3. The detour is anticipated to be in place for approximately 50 days. Signs directing pedestrians and bicycles to the detour route would be placed at the detour locations. The Proposed Project would remove the Freedom Bridge, which would eliminate the connection of the San Tomas Aquino trail to the east levee; however, continued pedestrian and bicyclist access across the San Tomas Aquino Creek would be maintained throughout and following the Proposed Project via Mission College Boulevard located approximately 1,000 feet north of the Proposed Project. Since the Proposed Project would not contribute to population growth or other long-term land use modifications, the proposed project is not anticipated to affect other public facilities. The pedestrian and bicyclist detour would be temporary and limited to the construction period, and pedestrian and bicyclist access the San Tomas Aquino trail would be maintained following Proposed Project completion approximately 1,000 feet north of the Proposed Project. Therefore, impacts to other public facilities would be **less than significant**.

3.16 RECREATION

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:				
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

3.16.1 Regulatory Setting

No federal or State regulations are applicable to recreation in relation to the Proposed Project. The City of Santa Clara General Plan contains goals and policies related to recreation. The following policy is relevant to the Proposed Project:

> **5.9.1-P3:** Provide trails along creeks and other rights-of-way to link parks, open spaces, bicycle facilities and transit services with residential neighborhoods and employment centers.

3.16.2 Environmental Setting

The San Tomas Aquino Creek Trail, which is located to the west of the Freedom Bridge, is a Class I Shared Use Path (Alta Planning + Design 2019). A Valley Water maintenance road is located to the east of the Freedom Bridge. The Proposed Project encompasses approximately 110 LF of the San Tomas Aquino trail.

3.16.3 Discussion of Checklist Responses

a. Increase use of existing parks or recreational facilities – Less than Significant

The Proposed Project would not induce population growth, and demand for existing neighborhood and regional parks would not increase after completion of the Proposed Project. However, there could be a temporary increase in demand for pedestrian/bicycle paths in the Project vicinity if users of the affect portion of San Tomas Aquino Creek Trail elect to use other trails during construction. During Phase I, pedestrians and bicyclists would be excluded from the work area, but would be able to travel along the paved San Tomas Aquino Trail to the west of the bridge; therefore, it is not anticipated that pedestrians and bicyclists would avoid the Proposed Project area. During Phase II, the San Tomas Aquino Creek Trail would be closed to through traffic between Agnew Road and Scott Boulevard, and pedestrians and bicyclists would be routed along the detour shown in Figure 2-3. It is possible that pedestrians and bicyclists

would avoid the Proposed Project area during Phase II of construction (approximately 44 work days) and use other trails in the region. The temporary construction impacts on San Tomas Aquino Creek Trail are not anticipated to increase demand of other neighborhood parks such that substantial physical deterioration of other recreational facilities and parks would occur. Therefore, the impact on existing park and recreational facilities would be **less than significant**.

b. Creation of new or altered recreational facilities – No Impact

The Project would not induce population growth and demand for recreational facilities would not increase after completion of the Project. The Project does not include construction or expansion of recreational facilities and would have **no impact**.

3.17 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. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d. Result in inadequate emergency access?	☐	☐	☒	☐

3.17.1 Regulatory Setting

CEQA Guidelines

The new CEQA Guidelines Section 15064.3, subdivision (b) was adopted in December 2018 by the California Natural Resources Agency. These revisions to the CEQA Guidelines criteria for determining the significance of transportation impacts are primarily focused on projects within transit priority areas, and shifts the focus from driver delay to reduction of greenhouse gas emissions, creation of multimodal networks, and promotion of a mix of land uses. The criteria shift the focus of transportation impact analysis away from level of service (LOS) in favor of VMT.

Local and Regional Plans

The City of Santa Clara General Plan (2010) contains goals and policies related to transportation. The following policy is relevant to the Proposed Project:

> **5.8.1-P2:** Link all City transportation networks, including pedestrian and bicycle circulation, to existing and planned regional networks.

The City of Santa Clara Bicycle Plan Update 2018 and City of Santa Clara Pedestrian Master Plan 2019 identify the San Tomas Aquino Creek Trail, which is located to the immediate west of the Freedom Bridge, as an existing Class I Shared Use Path (Alta Planning + Design 2019a and 2019b). The City of Santa Clara Bicycle Plan Update 2018 also identifies Mission College

Boulevard, which is located to the north of the Proposed Project, and is where equipment will access the site, as an existing Class II Bicycle Lane (Alta Planning + Design 2019a).

Bicycle Plan objective/policies relevant to the Proposed Project are:

Objective 2.C: Enhance standard operating practices for installing new bicycle facilities and for bicycle facility maintenance.

Policy 2.C.4: Maintain bicycle lanes next to construction zones wherever feasible. The City's Complete Streets Policy shall be used as guidance and followed related to construction of projects.

3.17.2 Environmental Setting

The San Tomas Aquino Creek Trail provides pedestrians and bicyclists access through the Proposed Project area on the west side of San Tomas Aquino Creek. Maintenance vehicles owned or contracted by Valley Water have access to the maintenance road located on the east side of the creek. Mission College Boulevard is an arterial street, which would provide the access point for equipment entering the Proposed Project area.

3.16.1 Discussion of Checklist Responses

a. Conflict with applicable circulation plans, ordinances, or policies and applicable congestion management programs – Less than Significant

The Proposed Project area does not include any publicly accessible roadways or public transit routes. Access to the Proposed Project area would occur from Mission College Boulevard, which is considered an arterial road in the City of Santa Clara General Plan (City of Santa Clara 2010). No alterations to existing roadways would occur under the Proposed Project and there would be no impact to vehicle transportation or roadway configurations.

The Project activities would generate three types of vehicle traffic: mobilization and demobilization of heavy construction equipment; construction worker commuting; and delivery of materials and supplies.

<u>Heavy Equipment Deliveries and Material Hauling</u>

Construction equipment would be staged on site, meaning that once delivered, equipment would remain on site until use of that equipment has been completed. Transportation of equipment to (mobilization) and from (demobilization) the Proposed Project area would add a small number of additional trips. Additional trips would be generated by offhaul of the demolished bridge and delivery of materials and supplies, which would occur infrequently. Over the Proposed Project implementation period, it is estimated that heavy equipment deliveries and material hauling would add an average of less than one round trip to area roadways each day.

Construction Worker Trip Generation

As described in Chapter 2, Proposed Project activities would occur over 54 working days between April and October. It is estimated that five workers, on average, would be on site during construction. Over the Proposed Project implementation period, it is estimated that construction worker vehicles would add no more than five round trips, or 10 individual trips, to area roadways each day.

Pedestrian and Bicycle Facilities

As described in Section 3.11, "Land Use and Planning," demolition of the Freedom Bridge would remove a means for pedestrians and cyclists to cross over San Tomas Aquino Creek. The bridge was initially constructed to allow pedestrian access from the Intel buildings located to the east of the bridge directly to the Freedom Parking lot that was located to the west of the bridge. Parking at the Freedom Parking lot has been discontinued, and a fence blocks access between the San Tomas Aquino Creek Trail and the vacant lot to the west (formerly the Freedom Parking lot). Currently the Freedom Bridge provides pedestrian and bicyclist access from the Intel buildings as well as the Valley Water maintenance path to the San Tomas Aquino Creek Trail.

During Phase I, pedestrians and bicyclists would be excluded from the work area, but would be able to travel along the paved San Tomas Aquino Trail to the west of the bridge. There would be temporary impacts to pedestrian and bicycle facilities due to the planned closure of a portion of the San Tomas Aquino Trail during Phase II of the Proposed Project, but trail access would be fully restored following Proposed Project completion. During the trail closure, an alternate route would be identified with detour signage (see Figure 2-3). The Project would not permanently change the San Tomas Aquino's capacity for shared pedestrian and bicycle use. Following removal of the Freedom Bridge, pedestrians and bicyclist would still be able to cross San Tomas Aquino Creek at Mission College Boulevard, approximately 960 feet north of the Freedom Bridge. The bicycle lanes along Mission College Boulevard would be maintained through Proposed Project activities.

Summary

Up to approximately 10 individual daily trips would be generated during construction; these trips would be generated from a combination of construction worker commute vehicles, mobilization and demobilization of heavy construction equipment, and delivery of materials and supplies. This number represents a small proportion of daily traffic volume capacity on roadway segments in the Proposed Project vicinity. There would be temporary impacts to bicycle and pedestrian use of the San Tomas Aquino Trail during Proposed Project Implementation. Following removal of the Freedom Bridge, pedestrians and bicyclist would still be able to cross San Tomas Aquino Creek at Mission College Boulevard, approximately 960 feet north of the Freedom Bridge. Thus, The Project would be consistent with policies established by Santa Clara County and the City of Santa Clara. BMP TR-1 (*Incorporate Public Safety Measures*) would be incorporated into the Proposed Project and would further reduce potential transportation impacts by ensuring adequate safety features are present in and near the Project area. Therefore, the impact would be **less than significant**.

b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b) – Less than Significant

The vehicle miles traveled for the Project were estimated based on a combination of construction worker commute vehicles, mobilization and demobilization of heavy construction equipment, and delivery of materials and supplies. Total vehicle miles traveled for the Project is anticipated to be approximately 6,070, with an estimated 10 trips per day. Projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than significant transportation impact (Office of Planning and Research 2017). Based on this analysis, the impact on transportation as it relates to vehicle miles traveled would be **less than significant**.

c. Increased hazards resulting from geometric design features – Less than Significant

The Proposed Project would not introduce unsafe design features or incompatible uses into the area. The Proposed Project would be confined the vicinity of the Freedom Bridge and would not change design features of adjacent roadways. The San Tomas Aquino Trail would be graded and repaved to match adjacent trail contours. Therefore, there would be no long-term impacts on roadway or intersection safety as a result of the Proposed Project. Therefore, the impact would be **less than significant**.

e. Inadequate emergency access – Less than Significant

Although there may be a small, temporary increase in local traffic due to the Proposed Project, this is anticipated to have less than significant impacts on emergency access within the Project vicinity. Impacts to emergency access are further discussed in Section 3.9, “Hazards and Hazardous Materials,” and Section 3.15, “Public Services.” There would be no permanent impacts to emergency access due to the Proposed Project. Therefore, the impact would be **less than significant**.

3.18 TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Proposed Project:				
a. 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)	☐	☐	☒	☐
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.	☐	☐	☒	☐

3.18.1 Regulatory Setting

Federal Laws, Regulations, and Policies

Federal law does not address tribal cultural resources (TCRs), as these resources are defined in the Public Resources Code. However, similar resources, called traditional cultural properties (TCPs), fall under the purview of Section 106 of the NHPA, as referenced in Section 3.5, "Cultural Resources." TCPs are locations of cultural value that are historic properties. A place of cultural value is eligible as a TCP "because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community" (Parker and King 1990, rev. 1998). A TCP must be a tangible property, meaning that it must be a place with a referenced location, and it must have been continually a part of the community's cultural practices and beliefs for the past 50 years or more. Unlike TCRs, TCPs can be associated with communities other than Native American tribes, although the resources are usually associated with tribes. By definition, TCPs are historic properties; that is, they meet the eligibility criteria as a historic property for listing in

the NRHP. Therefore, as historic properties, TCPs must be treated according to the implementing regulations found under Title 36 CFR Section 800, as amended in 2001.

State Laws, Regulations, and Policies

CEQA and CEQA Guidelines

AB 52, which was approved in September 2014 and went into effect on January 1, 2015, requires that state lead agencies consult with any California Native American tribe that is traditionally and culturally affiliated with the geographic area of a proposed project, if so requested by the tribe. The bill, chaptered in Public Resources Code Section 21084.2, also specifies that a project with an effect that may cause a substantial adverse change in the significance of a TCR is a project that may have a significant effect on the environment.

Defined in Public Resources Code Section 21074(a), TCRs are:

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

(A) Included or determined to be eligible for inclusion in the California Register of Historical Resources; or

(B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

(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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

TCRs are further defined under Public Resources Code Section 21074 as follows:

(b) A cultural landscape that meets the criteria of subdivision (a) is a TCR to the extent that the landscape is geographically defined in terms of the size and scope of the landscape; and

(c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

Mitigation measures for TCRs must be developed in consultation with the affected California Native American tribe pursuant to newly chaptered Section 21080.3.2, or according to Section 21084.3. Section 21084.3 identifies mitigation measures than include avoidance and preservation of TCRs and treating TCRs with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource.

3.18.2 Environmental Setting

An email request was made to the Native American Heritage Commission (NAHC) on September 16, 2020, to review its files for the presence of recorded sacred sites on the Project site. The NAHC responded on September 17, 2020, stating that significant resources are not located in the vicinity of the Project area as a result of a search of their files. The NAHC also provided a list of 10 tribes or tribal members with a traditional and cultural affiliation with the Project area.

Project notification letters, dated October 8, 2020, were sent to all ten tribal representatives identified by the NAHC. **Table 3.18-1** lists all those contacted and summarizes the results of the consultation. Appendix D provides the correspondence with tribes pursuant to AB52.

Table 3.18-1. Native American Correspondence

Tribe	Name	Notification Letter Mailed	Letter Receipt Date	Comments/Notes
Amah Mutsun Tribal Band	Valentin Lopez, Chairperson	October 8, 2020	October 14, 2020	No response, to date.
Amah Mutsun Tribal Band of Mission San Juan Bautista	Irenne Zwierlein, Chairperson	October 8, 2020	October 13, 2020	No response, to date.
Indian Canyon Mutsun Band of Costanoan	Ann Marie Sayers, Chairperson	October 8, 2020	October 13, 2020	No response, to date.
Indian Canyon Mutsun Band of Costanoan	Kanyon Sayers-Roods, Most Likely Descendent (MLD) Contact	October 8, 2020	October 17, 2020	No response, to date.
Muwekma Ohlone Indian Tribe of the San Francisco Bay Area	Charlene Nijmeh Chairperson	October 8, 2020	October 15, 2020	No response, to date.
Muwekma Ohlone Indian Tribe of the San Francisco Bay Area	Monica Arellano	October 8, 2020	October 10, 2020	No response, to date.
North Valley Yokuts Tribe	Katherine Erolinda Perez, Chairperson	October 8, 2020	October 13, 2020	No response, to date.
North Valley Yokuts Tribe	Timothy Perez, MLD Contact	October 8, 2020	October 16, 2020	No response, to date.
Ohlone Indian Tribe	Andrew Galvin	October 8, 2020	October 21, 2020	No response, to date.
The Confederated Villages of Lisjan	Corrina Gould, Chairperson	October 8, 2020	No record of receipt	No response, to date.

3.18.3 Discussion of Checklist Responses

a. 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)

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.

No TCRs, as defined in Public Resources Code Section 21074, have been identified within the Proposed Project site through archival research or tribal consultation. Proposed Project activities would not involve excavation in original ground; therefore it is not expected that archaeological remains in their original depositional context would not be encountered. Archaeological artifacts are sometimes discovered in redeposited levee fill material, but these items are without context and are therefore not considered significant. Additionally, Valley Water BMP CU-1 (Accidental Discovery of Archaeological Artifacts or Burial Remains) would be implemented and would avoid or minimize any potential impacts to archaeological resources by requiring work to stop if archeological resources are found, establishing a no-work buffer within 100 feet of the find, and following specific protocols for identification and evaluation of the find. Therefore, the impact on tribal cultural resources would be **less than significant**.

3.19 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the Project:				
a. Require or result in the relocation or construction of new or expanded water, or 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?	☐	☐	☒	☐

3.19.1 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal regulations are applicable to utilities and associated service systems in relation to the Proposed Project.

State Laws, Regulations, and Policies

The California Integrated Waste Management Act of 1989 (PRC, Division 30) requires all California cities and counties to implement programs to reduce, recycle, and compost wastes by at least 50 percent by 2000 (PRC Section 41780). The State, acting through the California Integrated Waste Management Board (now California Department of Resources Recycling and

Recovery [CalRecycle]) determines compliance with this mandate based on jurisdiction's per-capita disposal rates. Policies contained in the Conservation Element of the City's General Plan are also intended to promote waste reduction and recycling.

3.19.2 Environmental Setting

Valley Water manages an integrated water resources system that includes the supply of clean, safe water, flood protection and stewardship of streams on behalf of Santa Clara County's 1.8 million residents. Valley Water manages 10 dams and surface water reservoirs, three water treatment plants, and more than 275 miles of streams.

Water

The City of Santa Clara provides potable water service to its residential, commercial, industrial, and institutional customers within the City limits. The City's water system facilities include groundwater wells, water mains, hydrants, and other facilities and equipment. Potable water sources for the City's system include groundwater wells and imported water supplies provided by Valley Water and the San Francisco Public Utilities Commission (SFPUC) Hetch Hetchy system. The water supply is augmented by recycled water provided by the South Bay Water Recycling Program (SBWR). The Proposed Project would not contribute to population growth or other long-term land use modifications and would, therefore, have no impact on existing water service.

Sewer

The Proposed Project is located near the downstream end of the City's piped sewer collection system. The system ultimately terminates at the San José/Santa Clara Wastewater Pollution Control Plant, where wastewater is treated and a portion of which yields recycled water. The commercial development surrounding the Proposed Project are is served by City facilities, but no sewer facilities are located within the Proposed Project. The Proposed Project would not contribute to population growth or other long-term land use modifications that could lead to an increased demand for sewer service. Therefore, the Proposed Project would not affect sewer demands. As such, sewer facilities are not discussed further in this setting section.

Stormwater

The commercial development surrounding the Proposed Project is served by City stormwater facilities. Nearby stormwater systems drain into San Tomas Aquino Creek and other streams that all drain to the San Francisco Bay, but no stormwater facilities occur within the Proposed Project area. The Proposed Project would not contribute to population growth or other long-term land use modifications that could lead to increased permanent impervious surface or increased stormwater service demand. Therefore, the Proposed Project would have no impact on existing stormwater services.

Solid Waste

The nearest landfills to the Proposed Project area include the Zanker Road Landfill located at 705 Los Esteros Road, San Jose, CA, which is located approximately six miles northeast of the Proposed Project area, and the Newby Island Sanitary Landfill, which is located approximately 8

miles northeast at 1601 Dixon Landing Road, Milpitas, CA. The Zanker Road Landfill has a maximum permitted capacity of 36,400,000 cubic yards with no remaining capacity. The landfill is permitted to accept 1,300 tons per day (CalRecycle. 2020a). The Newby Island Sanitary Landfill has a permitted capacity of 57,500,000 cubic yards and approximately 21,200,000 cubic yards of remaining capacity. The Newby Island Sanitary Landfill is permitted to accept up to 4,000 cubic yards per day (CalRecycle. 2020b).

Electricity and Natural Gas

Silicon Valley Power (SVP) provides electric utility power to all residences and commercial development within the City. This electric system includes overhead and underground facilities. Since the City is situated within the Pacific Gas and Electric's (PG&E) territory, elements of PG&E's electric transmission system are also present within the City. A 60 kilovolt (kV) power line and associated towers is located immediately west of the San Tomas Aquino trail within the Proposed Project area. Additionally, two overhead transmission powerlines connect to a distribution substation east of the Proposed Project area. These substation connections span from the 12kV powerline east across San Tomas Aquino Creek approximately 60 feet north of the Proposed Project area. PG&E provides natural gas service throughout the City and its facilities include 24-inch diameter high pressure gas mains; 4, 2, and 1.25-inch diameter gas distribution mains, and other equipment. No PG&E natural gas mains are known to exist within the Proposed Project.

Residential and commercial development surrounding the Proposed Project area is served by these electricity and natural gas providers. While the 60kV electric transmission line, associated towers, and a substation connection spanning the creek are located near the Bridge and within the Proposed Project area, electric service would not be affected by the Proposed Project. The Proposed Project would not contribute to population growth or other long-term land use modifications and would have no impact on electric or natural gas service demand or service.

Communications

Telecommunications lines are present on and spanning the gaps between the electric transmission poles near and within the Proposed Project area. The height of these lines varies, but is generally 15 to 30 feet above grade. The Proposed Project does would be implemented to avoid these telecommunications lines and would not interrupt their operation or service.

3.19.3 Discussion of Checklist Responses

a. Require the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities or expansion of existing facilities, the construction or relocation of which could cause significant environmental effects? – No Impact

The Proposed Project would result in a permanent small, but overall reduction in the amount of impervious surface in the Proposed Project area through the removal of the Freedom Bridge. Since the Proposed Project is not currently served by stormwater facilities, the Proposed Project would not lead to the expansion of existing stormwater facilities.

The Proposed Project would require the placement of temporary sanitary facilities during construction activities. Valley Water BMP WQ-8 (Manage Sanitary and Septic Waste) has been incorporated into the proposed project and would require that all temporary sanitary facilities that are located within the Proposed Project area are in compliance with the California Division of Occupational Safety and Health (Cal/OSHA) regulation 8 California Code of Regulations 1526. However, the Proposed Project would not require or result in the construction of new water treatment facilities or expansion of such facilities.

The Proposed Project would not contribute to the current demand on or alter existing wastewater, stormwater, electric, natural gas, or telecommunications services. Therefore, the Proposed Project would have **no impact** on such utilities.

b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years – Less than Significant

The Proposed Project would require potable or reclaimed water for dust suppression during demolition activities. However, the amount of water required would be minimal and would be distributed to the Proposed Project area via water trucks that source water from City or Valley Water supplies. After the Freedom Bridge demolition is completed, material is removed, and post-demolition restoration is completed, there would be no further local water use. No new or expanded water supplies would be required to serve the Proposed Project. Proposed Project impacts on local water supplies would be **less than significant**.

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 – No Impact

The Proposed Project does not include uses (e.g. residential, commercial, etc.) that would result in wastewater discharge that would require treatment at the San José/Santa Clara Wastewater Pollution Control Plant. Therefore, the Proposed Project would not result in a determination by any wastewater treatment provider, which serves or may serve the Proposed Project that it has inadequate capacity to serve the Proposed Project's projected demand in addition to the provider's existing commitments. The Proposed Project would therefore have **no impact** on wastewater treatment facilities.

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 – Less than Significant

The Proposed Project would result in the generation of solid waste during phases I and II of bridge demolition activities, but such waste would be disposed of at a nearby legally permitted landfill. Since the Zanker Road Landfill lacks capacity to accommodate additional solid waste, waste material would likely be disposed of at the Newby Island Sanitary Landfill. The Proposed Project would reuse any material locally where feasible, but it would inherently generate some solid waste following bridge demolition activities. The total volume of waste generated during phases I and II of the Proposed Project is anticipated to be less than 30 cubic yards and would be

disposed of following each phase of the Proposed Project. Thus, the Proposed Project would comply with the operating conditions of the Newby Island Sanitary Landfill, which includes on-site material recycling facilities that would divert some portion of solid waste to reuse and further reduce waste. Therefore, the Proposed Project would be consistent with solid waste reduction goals and have a **less than significant** impact on its solid waste contribution to local solid waste infrastructure.

e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste – Less than Significant

The Proposed Project's overall potential to increase waste generation would be finite (immediately following phases I and II) and would be small. Proposed Project-related waste volumes would be accommodated as part of the Proposed Project area's existing waste stream. Furthermore, wastes (primarily steel and a small amount of concrete) generated by the Proposed Project would be handled and disposed in accordance with all applicable federal, state, and local regulations and policies. Much of this material is reusable by the receiving landfill and would be processed for reuse to the extent feasible, which would further divert otherwise waste materials away from permanent disposal. The Proposed Project is not expected to exceed landfill capacity or result in impacts related to violation of solid waste regulations. Therefore, the Proposed Project would result in a **less than significant** impact on solid waste generation and would comply with statutes and regulations related to solid waste.

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3.20 WILDFIRE

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

3.20.1 Regulatory Setting

Federal Laws, Regulations, and Policies

No federal regulations are applicable to wildfire in relation to the Proposed Project.

State Laws, Regulations, and Policies

The Office of the State Fire Marshal and CAL FIRE administer state policies regarding wildland fire safety.

Local Laws, Regulations, and Policies

The CEQA Guidelines were amended in 2019 to address the need to evaluate wildfire impacts. The Appendix G checklist amendments apply to projects located in or near State responsibility areas (where the state has financial responsibility of preventing and suppressing fires), or lands classified as very high fire severity zones by local agencies. As stated in the General Plan, the City

of Santa Clara does not have the terrain or vegetation conditions for large or devastating wildfires (City of Santa Clara 2010).

3.20.2 Environmental Setting

The State of California and Santa Clara County Fire Hazard Severity Zone maps are based on an evaluation of fire history, existing and potential fuel, flame length, blowing embers, terrain, weather, and the likelihood of buildings igniting. The Fire Hazard Severity Zone maps indicate that the Proposed Project is within a Local Responsibility Area for determining the risk of wildfires and occurs outside of a designated Very High Fire Hazard Severity Zone (CAL FIRE 2007). Furthermore, the Proposed Project area is located within an urbanized area. It is not within the Wildland Urban Interface Zone, which is the primary area of concern for risks associated with wildfires.

3.20.3 Discussion of Checklist Responses

a. Substantially impair an adopted emergency response plan or emergency evacuation plan – No Impact

The Proposed Project is not located in or near a State responsibility areas or lands classified as very high fire hazard severity zones. **No impact** would occur.

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 – No Impact

The Proposed Project is not located in or near a State responsibility areas or lands classified as very high fire hazard severity zones. **No impact** would occur.

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 – No Impact

The Proposed Project is not located in or near a State responsibility areas or lands classified as very high fire hazard severity zones. **No impact** would occur.

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 – No Impact

The Proposed Project is not located in or near a State responsibility areas or lands classified as very high fire hazard severity zones. **No impact** would occur.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

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 plan 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 which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

3.21.1 Discussion of Checklist Responses

a. Effects on environmental quality, fish or wildlife, and historic resources – Less than Significant with Mitigation

Please refer to the impact discussions presented in Sections 3.1 through 3.20, in particular the impact analysis for Biological Resources (Section 3.4), Cultural Resources (Section 3.5), and Tribal Cultural Resources (Section 3.18). While the Proposed Project would result in potentially significant impacts on biological resources, implementation of applicable biological BMPs and mitigation measures as proposed in this MND would ensure that the Proposed Project would not substantially degrade the quality of the environment; substantially reduce the habitat, population, or range of a plant or animal species; cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community; or reduce the number or restrict the range or a rare or endangered plant or animal. The Proposed Project would not result in significant impacts on cultural resources given the low likelihood of encountering cultural resources and past disturbance in the Proposed Project area. BMP CU-1 (Accidental Discovery of Archeological Artifacts, Tribal Cultural Resources, or Burial Remains) would avoid or minimize any potential impacts to cultural resources by requiring work to stop in the area if resources are found. Therefore, with BMPs and mitigation measures, the impact would be **less than significant with mitigation**.

b. Cumulative Impacts – Less than Significant

As defined by Section 15344(b) of the CEQA Guidelines "the change in the environment which results from the incremental impact of the Project when added to other closely related past, present, and reasonable [sic] foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time." In addition to Project-specific impacts, this evaluation considered the Project's potential for incremental effects that are cumulatively considerable.

After implementation of the Proposed Project, further maintenance of the Freedom Bridge would no longer be required and no further projects associated with the Freedom Bridge would occur.

An amendment to the City of Santa Clara General Plan is currently under consideration, which would change the General Plan land use designation of the land immediately west of the Proposed Project from High Intensity Office to Very High Density Residential. Preparation of the Freedom Circle Focus Area Focus Area, which would be incorporated into the General Plan, is also under consideration. Notice of Preparation of a Draft Environmental Impact Report (EIR) for the Freedom Circle Focus Area and Greystar General Plan Amendment was issued on June 18, 2020, and the EIR will evaluate the environmental impacts of this project. Due to the current schedule for the Proposed Project to take place in 2021, and the anticipated timeline for completion of the EIR for the Freedom Circle Focus Area and Greystar General Plan Amendment, implementation of the Proposed Project is not anticipated to overlap with implementation of construction associated with the Freedom Circle Focus Area and Greystar General Plan Amendment. Silica Networks plans to install telecommunications infrastructure to enhance wireless and broadband speeds for the Mission College Boulevard Subloop Segments 3-6 Project. This project would entail work along the proposed pedestrian and cyclist detour route for the Proposed Project, which is anticipated to be completed by early 2021 and would thus not overlap with implementation of the Proposed Project Due to the small scale of the Proposed Project and anticipated temporal separation from implementation of the projects described above, the Proposed Project is not anticipated to contribute to cumulatively considerable impacts, despite the geographic proximity of the projects.

While the above analysis finds that the Proposed Project would result in potentially significant impacts on biological resources, mitigation measures would reduce the Proposed Project impacts in these areas to a level of less-than-significant and to a level where the Proposed Project's contribution to a cumulative impact would not be cumulatively considerable. The impact would be **less than significant**.

c. Effects on Human Beings – Less than Significant

The above analysis shows that the Proposed Project would not result in significant impacts with mitigation measures incorporated. While the analysis finds that the Proposed Project would result in some adverse impacts to biological resources, mitigation measures would sufficiently reduce those impacts to a less than significant level. The Proposed Project would not result in significant changes to existing land use. The majority of potential effects that could impact human beings would be temporary. The impact would be **less than significant**.

Chapter 4
Report Preparation

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Chapter 5
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None cited.

CHAPTER 2. PROJECT DESCRIPTION

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CHAPTER 3. ENVIRONMENTAL CHECKLIST

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3.21 Mandatory Findings of Significance

None cited.

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