

DRAFT Mitigated Negative Declaration



Valley Water

September 2020

Calabazas Creek Bank Rehabilitation Project

Valley Water Project No. 62084001

Table of Contents

Chapter 1: Introduction.....	1-1
Organization of this Document.....	1-1
Purpose of the Mitigated Negative Declaration.....	1-1
Decision to Prepare a Mitigated Negative Declaration.....	1-1
Public Review Process	1-2
Interagency Collaboration and Regulatory Review	1-2
Chapter 2: Project Description.....	2-1
Project Background.....	2-1
Project Objectives	2-1
Project Description	2-3
Chapter 3: Environmental Setting.....	3-1
Project Location	3-1
Surrounding Land Uses	3-1
Physical Environment	3-1
Chapter 4: Environmental Evaluation.....	4-2
Aesthetics	4-4
Agriculture and Forestry Resources.....	4-7
Air Quality	4-10
Biological Resources	4-16
Cultural Resources	4-40
Energy.....	4-45
Geology and Soils.....	4-47
Greenhouse Gas Emissions	4-53
Hazards and Hazardous Materials.....	4-57
Hydrology and Water Quality	4-63
Land Use and Planning.....	4-70
Mineral Resources	4-72
Noise.....	4-74
Population and Housing.....	4-82
Public Services	4-83
Recreation.....	4-86
Transportation.....	4-88
Tribal Cultural Resources	4-92
Utilities and Service Systems.....	4-95
Wildfire	4-100
Mandatory Findings of Significance	4-102
Chapter 5: Report Preparation	5-1
Chapter 6: References	6-1

Figures

Figure 2-1. Project Location	2-2
Figure 2-2. Project Site Locations	2-4
Figure 3-1. Representative Photographs of the Project Area	3-1
Figure 4-2. CNDDDB Fish and Wildlife Occurrences within 2 Miles of Project Area	4-26

Tables

Table 1-1. Summary of Applicable Regulatory Requirements	1-3
Table 2-1. Summary of Work by Site	2-5
Table 2-2. Approximate Construction Excavation and Backfill	2-8
Table 2-3. Approximate Off-Site Construction Trips	2-9
Table 2-4. Proposed Construction Equipment	2-9
Table 2-5. Estimated Construction Schedule	2-10
Table 2-6. Best Management Practices	2-11
Table 4-1. Thresholds of Significance for Criteria Air Pollutants/Precursors	4-11
Table 4-2. Construction Emissions without BMPs Incorporated	4-14
Table 4-3. Special-Status Plants with Potential to Occur in the Project Area	4-24
Table 4-4. Special-Status Animal Species with Potential to Occur in the Project Area	4-27
Table 4-5. Impacts on Sensitive Natural Communities	4-35
Table 4-6. Protected Coast Live Oak Trees to be Removed by the Project	4-37
Table 4-7. BAAQMD Greenhouse Gas Thresholds of Significance	4-54
Table 4-8. Cupertino General Plan Policies Related to Hazards and Hazardous Materials	4-59
Table 4-9. City of Cupertino General Plan Policies Related to Noise	4-75
Table 4-10. Typical Maximum Noise Emission Levels by Construction Equipment	4-78
Table 4-11. Typical Vibration Source Levels by Construction Equipment	4-81
Table 4-12. Cupertino General Plan Transportation Policies Relevant to the Project	4-89
Table 4-13. Estimated Construction-Related Vehicle Trips	4-90
Table 4-14. Cupertino General Plan Policies Related to Utilities	4-96

Appendices

Appendix A	Representative Draft Design Plans
Appendix B	California Emissions Estimator Model Data
Appendix C	Biological Site Assessment
Appendix D	Aquatic Resources Delineation Report
Appendix E	Cultural Resources Survey Memorandum
Appendix F	Mitigation Monitoring and Reporting Program Summary Table

Acronyms and Abbreviations

AB	Assembly Bill
ACHP	Advisory Council on Historic Preservation
ALUC	Airport Land Use Commission
BAAQMD	Bay Area Air Quality Management District
BMPs	Best Management Practices
CAA	Clean Air Act
Cal/EPA	California Environmental Protection Agency
Cal/OHSA	California Occupational Health and Safety Administration
CalRecycle	California Department of Resources Recycling and Recovery
CAP	Climate Action Plan
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
cfs	cubic feet per second
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPPA	California Native Plant Protection Act
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalents
CRHR	California Register of Historical Resources
CWA	Federal Clean Water Act
dBA	Decibels on the A-weighted scale
DNL	Day-Night Average Sound Level
DPM	Diesel Particulate Matter
DTSC	Department of Toxic Substances Control
DU/acre	dwelling units per acre
EIR	Environmental Impact Report
EPA	United States Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
F&G Code	California Fish and Game Code
FMMP	Farmland Mapping and Monitoring Program
GHG	Greenhouse Gas
HCP	Habitat Conservation Plan
HMMP	Habitat Mitigation and Monitoring Plan
L _{eq}	Equivalent Continuous Sound Level

L _{max}	maximum noise level
LOS	Level of Service
LRA	Local Responsibility Area
MBTA	Migratory Bird Treaty Act
MND	Mitigated Negative Declaration
MRP	Municipal Regional Permit
MRZ	Mineral Resource Zone
MS4	municipal separate storm sewer system
MT	metric Tons
NMFS	National Marine Fisheries Service
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NHPA	National Historic Preservation Act
NO	Nitric Oxide
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxides
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRHP	National Register of Historic Places
NTU	Nephelometric Turbidity Units
NWIC	Northwest Information Center
OES	Office of Emergency Services
OHWM	Ordinary High Water Mark
PCA	Pest Control Advisor
PG&E	Pacific Gas and Electric Company
PM	Particulate matter
PPV	peak particle velocity
PRC	Public Resources Code
PRD	Permit Registration Document
Project	Calabazas Creek Bank Rehabilitation Project
RCRA	Resource Conservation and Recovery Act
ROG	Reactive Organic Gases
RWQCB	San Francisco Bay Regional Water Quality Control Board
SB	Senate Bill
SCCFD	Santa Clara County Fire Department
Scoping Plan	Climate Change Scoping Plan
SHPO	State Historic Preservation Officer
SMP	Stream Maintenance Program
SSC	Species of Special Concern
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resource Control Board
TAC	Toxic Air Contaminants
TMDL	Total Maximum Daily Limit
TPZ	Tree Protection Zone

UCMP	University of California Museum of Paleontology
USACE	United States Army Corps of Engineers
USC	United States Code
U.S. DOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Service
Valley Water	Santa Clara Valley Water District
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound
VTA	Santa Clara Valley Transportation Authority

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.

Chapter 1 Introduction

Organization of this Document

This document is organized to assist the reader in understanding the potential impacts that the 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 and Chapter 3 describes the environmental setting. Chapter 4 evaluates the potential impacts through the application of the CEQA Initial Study Checklist questions to project implementation. Chapter 5 lists the contributors, and Chapter 6 supplies the references used in its preparation.

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 Calabazas Creek Bank Rehabilitation Project (Project).

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, 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.

Decision to Prepare a Mitigated Negative Declaration

The Initial Study (Chapter 4) 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 MND is consistent with CEQA Guidelines Section 15070 which indicate that an MND is appropriate when:

The 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.

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 **September 18, 2020** and ending on **October 19, 2020**.

Due to the on-going COVID-19 pandemic, physical copies of the draft MND and supporting documents will not be available for public review. However, Valley Water will make electronic copies of the draft MND available for review online at:

- Valley Water website: <https://www.valleywater.org/CalabzasCreekRP>
- State Clearinghouse CEQAnet Web Portal: <https://ceqanet.opr.ca.gov>

Written comments or questions regarding the draft MND should be submitted to the name and address indicated below.

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

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. 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), the City of Cupertino, and the City of Sunnyvale are considered responsible agencies under CEQA.

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 Project. The Project would likely require project-specific permitting and/or review as summarized in **Table 1-1** below.

Table 1-1. Summary of Applicable Regulatory Requirements

Agency	Authorization
CDFW	California Fish and Game Code (F&G Code) Section 1602 Lake and Streambed Alteration Agreement
RWQCB	Clean Water Act (CWA) Section 401 Water Quality Certification and Construction General Permit
USACE	CWA Section 404 Permit
City of Cupertino	Encroachment Permit; Tree Removal Permit; Traffic Plan; Temporary Sign Permit

Valley Water hosted an interagency site visit on July 15, 2019, to solicit agency feedback on Project alternatives, potential impacts, mitigation, and permitting requirements. Staff representing CDFW, RWQCB, and United States Army Corps of Engineers (USACE) were in attendance. After advancing the Project design, follow-up conference calls were held with the agencies to further discuss alternatives and mitigation on February 11 and March 19, 2020. Feedback received during these meetings was incorporated or considered during development of this MND.

Chapter 2 Project Description

Project Background

Valley Water is responsible for maintenance of portions of Calabazas Creek, which extends approximately 13.3 miles from the confluence with the Guadalupe Slough on the San Francisco Bay upstream to the Saratoga foothills (**Figure 2-1**). The total drainage area of Calabazas Creek is 22.7 square miles, over 90% of which is urbanized. Consequently, maintenance of the creek channel is necessary to support the creek's function as a flood protection facility, to prevent damage to adjacent properties from erosion, and to minimize impacts to the natural creek habitat (e.g., loss of habitat, reduced water quality).

The Project reach, which spans approximately 0.7 mile from Bollinger Road (upstream end) to Miller Avenue (downstream end), is used for groundwater recharge by Valley Water. Imported water from the Stevens Creek pipeline is released about one-quarter mile upstream of Prospect Road near the Union Pacific Railroad, approximately 1.75 miles upstream of the Project area. The recharge zone usually extends downstream through the Project area and past Interstate 280 to about North Tantau Avenue. Depending on the gravels in the creek, the released water may go below ground in some areas and re-surface further downstream.

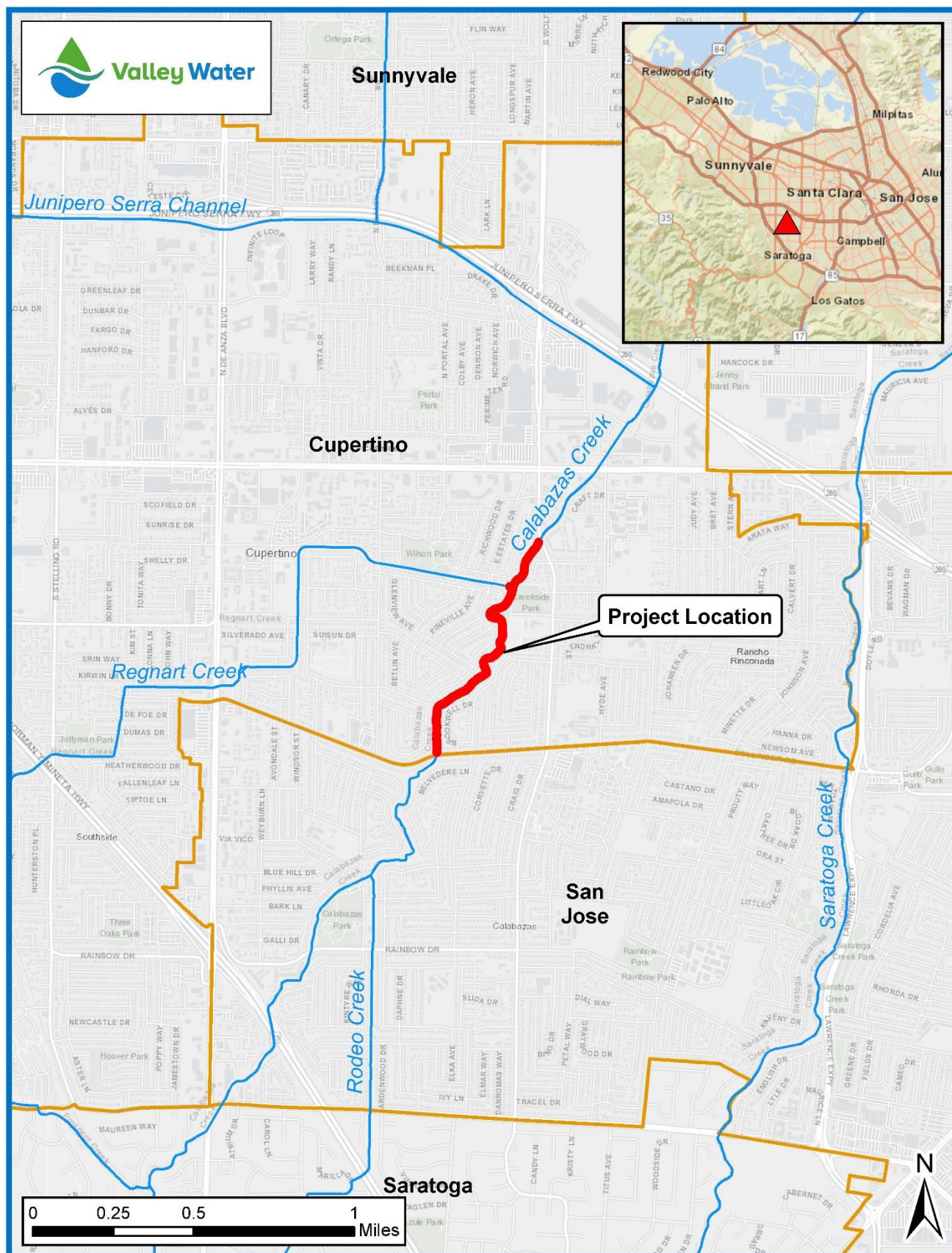
Calabazas Creek in the Project area is a deeply incised watercourse with a history of bank erosion and little distance between the top of bank and residential fence lines. In 2011, Valley Water completed construction of the Calabazas Creek Flood Protection Project along 3.7 miles of Calabazas Creek from Miller Avenue to Wardell Road. As part of that project, Valley Water repaired bank erosion at four locations in the current Project area. During inspections of the Project reach performed by Valley Water in 2017, additional toe erosion, bank failure, and/or surfaces lacking vegetative cover were observed at 10 locations. Many of these deficiencies were the result of winter 2016/2017 storm events and require bank rehabilitation to repair the banks to as-built conditions and prevent further erosion. The purpose of the current Project is to address those deficiencies.

Project Objectives

The Project would repair and stabilize (herein, "rehabilitate") eroding channel banks at 10 locations. Specific objectives of the Project are to:

- Rehabilitate damaged creek bank sections to as-built or natural conditions, including to prevent potential damage to adjacent properties;
- Minimize future bank failure;
- Minimize impacts on water quality and riparian habitat associated with continued bank erosion;
- Reduce the need for on-going maintenance; and
- Continue to provide adequate flood protection.

Figure 2-1. Project Location



Project Description

The Project includes bank rehabilitation at 10 sites where creek banks have eroded. Work would generally be conducted in three phases for each site: 1) site preparation, 2) bank protection, and 3) site restoration. **Table 2-1** details the proposed bank rehabilitation work at each site. The location of the Project sites is included in **Figure 2-2** and representative plan and profile drawings of the bank repairs are included in **Appendix A**.

Site Preparation

Site preparation would include establishing a staging area and access locations, dewatering of the creek channel, and preparing each of the 10 work locations for the bank rehabilitation work.

Equipment and materials would be delivered to the Project site and staged in an approximately 3,400-square-foot area (120 feet long and 28 feet wide) in the northwest corner of Creekside Park. The staging area would be located on the edge of the existing athletic fields. Access to the creek channel and bank rehabilitation sites would occur from the existing earthen access ramp at Creekside Park and from a paved access ramp on Bollinger Road. Equipment and materials would travel through the channel to the work sites.

While work is anticipated to occur when the creek is dry, there is a possibility that in-channel pools or minor flows would be encountered. To ensure flows do not enter the work area, cofferdams would be constructed upstream of the work area and water would be pumped through a diversion pipe to a discharge location downstream of the work area. The cofferdams would be constructed of gravel bags lined with a Visqueen plastic sheeting. The area of dewatering and location of cofferdams would be limited to the minimum amount necessary to complete the work, depending on the sites under construction and the construction year.

After the creek has been dewatered and access has been established, the eroding creek bank at each site would be cleared of surface vegetation and loose soil. An estimated 32 trees would require removal to complete the Project (see Table 2-1). These trees are dispersed throughout Sites 6 through 10 and comprise a mix of native, non-native, and invasive species that help form the riparian canopy and mid-story. Care would be taken to minimize impacts on trees and other vegetation to the maximum extent practicable, including avoidance of root systems of trees that are not required to be removed. Removed native soils and vegetation would be hauled off-site for disposal, though some soils may be re-used at one or more of the 10 rehabilitation sites.

Bank Protection

Following site preparation, work crews would begin repair of the 10 erosional features. Generally, two bank rehabilitation treatments would be applied: riprap bank protection and sheet pile walls. Bank rehabilitation work is summarized by site in **Table 2-1**. Riprap bank protection involves the placement of large rocks or boulders along the bank to stabilize the bank, whereas sheet pile walls involve installation of vertical, metal walls to protect the bank from further erosion.

Valley Water evaluated the potential for more natural bank rehabilitation, such as through laying back the banks to establish a wider floodplain or by using bioengineered solutions (e.g., willow stakes); however, these options were rejected due to the narrow width of the riparian corridor (constrained by adjacent development), steep existing creek banks, and the high flow velocities and shear stress in the channel.

Figure 2-2. Project Site Locations

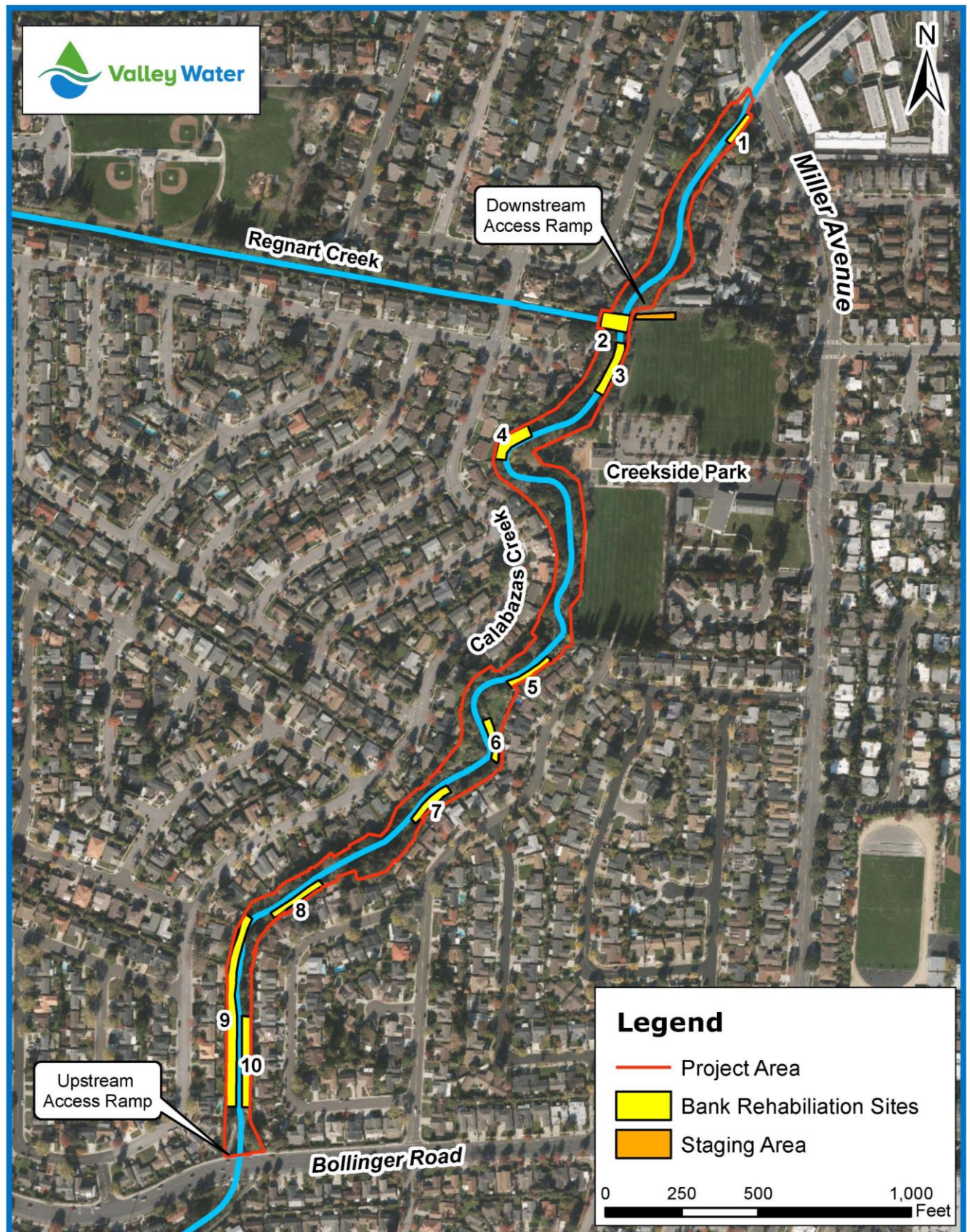


Table 2-1. Summary of Work by Site

Site No.	Bank Location	Proposed Repair	Length of Repair (LF)	Approx. Work Area(ft ²)	Excavation (CY)	Backfill			No. of Trees Removed
						Clean Fill (CY)	Backing No. 1 (CY)	Half-ton Rip Rap (CY)	
1	East Bank	Replace 25-foot section of eroded concreted half-ton riprap, extend this concreted riprap an additional 10 feet upstream, add 20 linear feet of erosion control blanket upstream to create an appropriate transition, and realign the low-flow channel to the center of the creek.	55	575	410	160	80	170	-
2	Confluence of Regnart and Calabazas Creeks	Repair the eroding dirt embankment (on upstream end of confluence) with soil, compact, and hydroseed. Replace eroded portion of the existing concrete drop structure and place half-ton riprap in the scour hole that has formed where Regnart Creek discharges.	60	750	50	20	-	30	-
3	East Bank	Use soil to fill the erosional/ void beneath an existing tree. Install half-ton riprap at the bank toe to help protect against future erosion.	40	225	250	140	-	60	-
4	West Bank	Erosion is occurring under a portion of bank previously fortified with sacked concrete. Excavate under sacked concrete where it is undermined and add one-ton riprap at toe.	70	325	210	150	-	70	-
5	East Bank	Install sheet pile retaining wall about 2 feet in front of near-vertical failing bank. Backfill with clean fill behind the wall and compact.	130	675	100	100	-	-	-
6	East Bank	Repair erosion with half-ton riprap at 1.5:1 slope up to 10 feet above the channel and resurface the slope up to top of bank.	120	3,200	2,130	680	300	640	3
7	East Bank	Remove debris from landslide. Repair erosional feature with half-ton riprap at 1.5:1 slope up to 10 feet	90	2,150	1,170	480	200	450	2

Site No.	Bank Location	Proposed Repair	Length of Repair (LF)	Approx. Work Area(ft ²)	Excavation (CY)	Backfill			No. of Trees Removed
						Clean Fill (CY)	Backing No. 1 (CY)	Half-ton Rip Rap (CY)	
		above the channel and resurface the slope up to top of bank.							
8	East Bank	Install sheet pile retaining wall about 2 feet in front of vertical failing bank. Excavate and regrade soil behind sheet pile wall at 1.5:1 slope or flatter to the top of proposed bank.	165	3,000	500	300	-	-	5
9	West Bank	Install sheet pile retaining wall to stabilize the failing bank (leaving existing soil and vegetation on the creek side of the wall). Excavate and regrade soil behind sheet pile wall at 1.5:1 slope to the top of proposed bank. Remove existing wooden log reinforcement and existing sewer line utility bridge and concrete abutments.	565	8,500	2,700	1,800	-	-	14
10	East Bank (overlaps with Site 9)	Install sheet pile retaining wall to stabilize the failing bank (leaving existing soil and vegetation on the creek side of the wall). Excavate and regrade soil behind sheet pile wall at 1.5:1 slope to the top of proposed bank.	260	3,950	1,600	800	-	-	8
Total			1,555 LF	23,350 ft² (0.54 acre)	9,120 CY	4,630 CY	580 CY	1,420 CY	32 trees

Riprap Bank Rehabilitation

Riprap bank rehabilitation would occur at Sites 1 through 4, 6, and 7. To install the riprap, an approximately 5-foot deep footing trench would be excavated along the toe of the bank and geotextile fabric would be placed over the excavated area. A rock filter backing layer (Backing No. 1, or approximately 75-pound rock) would be spread in a uniform layer over the geotextile fabric. Half-ton riprap (boulders) would then be laid on top of the backing layer along the slope to the specific depth, generally 5 feet thick. Riprap would typically extend to the 1% flood elevation, generally 10 feet above the bottom of the creek, to provide adequate bank protection while minimizing the amount of natural habitat impacted. Clean imported soil would be placed over the riprap on the re-established 1.5:1 embankment slope and compacted. Biodegradable erosion control with a native hydroseed mixture would be installed on top of the compacted earth backfill. In some locations, the natural bank slope above the riprap would be laid back (i.e., made less steep) to a 1:1 to 1.5:1 slope in order to reduce the likelihood of erosion. Banks would be recontoured to match the adjacent bank slope (i.e., returned to pre-failure configuration) to the extent possible. Where bank rehabilitation work occurs adjacent to past repairs, riprap would be tied into the existing riprap in a manner that forms a seamless transition. Furthermore, in some locations, the repair work would involve minor shifts in the location of the low-flow channel, generally away from an erosional feature and back towards the center of the creek.

Sheet Pile Wall Bank Protection

Due to the narrow creek corridor and existing vertical nature of the bank failures, sheet pile wall bank protection would occur at Sites 5, 8, 9, and 10. At these sites, the bank would be protected by a metal sheet pile wall in front of (Sites 5 and 8) or pressed into (Sites 9 and 10) the eroding bank. The sheet pile walls would be delivered to the site by trucks in approximately 3-foot wide sections and stored in the staging area until ready for installation. The sheet pile wall would be hydraulically pressed (rather than driven) into the substrate with a silent piling system. At Sites 5 and 8, the sheet pile wall would be installed approximately 2 feet in front of the eroding vertical bank. Clean fill would be placed behind the wall (between the wall and the existing bank) and compacted. The wall at Site 8 would extend up to 6 feet below the top of the vertical bank and the bank behind the wall would be graded to a 1.5:1 slope or flatter and revegetated. At Sites 9 and 10, the sheet pile wall would be installed into the middle of the steep failing bank. Native soil and vegetation on the creek side of the wall would remain intact. An approximately 5- to 7-foot section of the wall would be exposed where the top of the bank meets the wall, and the slope above the wall would be laid back at a 1.5:1 slope and vegetated.

Site 9 also includes a sewer line and utility bridge that crosses over the creek, owned and managed by the City of Sunnyvale. The City of Sunnyvale plans to divert sewage elsewhere and therefore the pipe, utility bridge, and existing log revetment wall (protecting the existing west abutment) would be removed by Valley Water.

Table 2-2. Approximate Construction Excavation and Backfill

Activity	Quantity (cubic yards)
Excavation	
Native Soils	9,120
<i>Subtotal</i>	<i>9,120</i>
Backfill	
Riprap (half-ton rock)	1,420
Import Backing No. 1 (75-pound rock)	580
Import Backfill (clean soil)	4,630
<i>Subtotal</i>	<i>6,630</i>
Total	15,750

Site Restoration and Revegetation

Following the bank rehabilitation work, the Project area would be restored to a natural, riparian habitat to the maximum extent practicable. Areas of temporarily disturbed natural substrate would be hydroseeded or revegetated with native species. Bank slopes above the installed riprap would be vegetated with a mixture of native herbaceous riparian understory species.

At Sites 9 and 10, native riparian vegetation would be planted along the recontoured bank above the sheet pile walls, covering approximately 0.3 acre and 820 linear feet. Due to overhead electric utility lines, smaller stature trees such as California buckeye (*Aesculus californica*), elderberry (*Sambucus* sp.), and holly-leaved cherry (*Prunus ilicifolia*) would be planted near the bottom of the slope, with native herbaceous understory higher on the bank.

Following any disturbances from equipment access, the channel will be restored to its pre-construction contours to the maximum extent practicable. Post-construction Best Management Practices (BMPs) would be implemented and any unsuitable material would be removed from the Project site.

Workers, Equipment, and Supplies

The number of workers and types of equipment utilized would vary depending on construction phase. Worker and haul trips would be greatest during the import and export of backfill and excavated materials, respectively. A summary of the estimated worker and haul trips is provided in **Table 2-3**. Proposed construction equipment and anticipated hours of use by phase and per day are listed in **Table 2-4**.

Table 2-3. Approximate Off-Site Construction Trips

Construction Phase	Worker Trips Per Day	Haul Trips Per Day ¹
Year 1 (Sites 1 – 7)		
Site Preparation	6	1
Bank Rehabilitation	10	9
Site Restoration	6	1
Year 2 (Sites 8 – 10)		
Site Preparation	6	1
Bank Rehabilitation	10	9
Site Restoration	6	1

¹ Haul trips were determined based on the total amount of excavation and backfill needed for the bank stabilization at each site, as well as the assumption that an average truck can handle 10 cubic yards of material per load.

Table 2-4. Proposed Construction Equipment

Equipment Type	Site Preparation		Bank Rehabilitation		Site Restoration	
	Equipment Amount	Hours Operated Per Day	Equipment Amount	Hours Operated Per Day	Equipment Amount	Hours Operated Per Day
Air compressors	1	3	1	2	-	-
Backhoe loader	1	8	1	6	-	-
Bulldozer	-	-	1	6	-	-
Chainsaw (tree removal)	1	~1	-	-	-	-
Concrete hopper/ pump	-	-	1	1	-	-
Concrete Trucks	-	-	2	1	-	-
Crane	-	-	2	2	-	-
Dump Truck	2	8	3	4	3	8
Excavator	1	8	1	4	-	-
Generator for pump	2	~1	-	-	-	-
Giken Sheet Pile Installer	-	-	2	4	-	-
Handheld Concrete Saw	-	-	-	-	1	~1
Hydroseeding Applicator	-	-	-	-	1	~1
Jackhammers	-	-	2	1	-	-
Loader-track mounted	1	8	1	6	-	-
Motor Grader	1	~1	-	-	-	-
Pumps	2	~1	-	-	-	-
Sheepsfoot Roller	1	8	-	-	-	-
Skidsteer Loader	1	8	-	-	-	-
Truck mounted boom lift	1	8	-	-	-	-
Water Truck	-	-	1	~1	1	~1

Schedule and Phasing

Construction of the Project is expected to begin in April 2021 and conclude by October 2022. The proposed construction activities described above would occur during the dry season, from April 15th through October 15th. The proposed construction schedule is shown in **Table 2-5**. Construction activities would occur from 7:00 a.m. to 8:00 p.m., Monday through Friday. No weekend or holiday construction is planned.

Table 2-5. Estimated Construction Schedule

Construction Phase	Construction Schedule		Approximate Working Days
	Start Date	End Date	
Year 1 (Sites 1 – 7)			
Site Preparation	4/15/2021	5/15/2021	22
Bank Rehabilitation	5/15/2021	9/15/2021	85
Site Restoration	9/15/2021	10/15/2021	23
Year 1 Schedule	4/15/2021	10/15/2021	130
Year 2 (Sites 8 – 10)			
Site Preparation	4/15/2022	5/15/2022	21
Bank Rehabilitation	5/15/2022	9/15/2022	86
Site Restoration	9/15/2022	10/15/2022	22
Year 2 Schedule	4/15/2022	10/15/2022	129
Complete Schedule	4/15/2021	10/15/2022	259

Note: construction start and end dates are estimates and may vary.

Operations and Maintenance

While not immediately anticipated, if and when corrective maintenance of the bank rehabilitation work is required, this work is expected to be minor and would be limited to the rehabilitation sites evaluated in this MND. Maintenance work is expected to be less frequent and smaller in scale than maintenance work currently occurring in the Project reach, as the Project would rehabilitate the primary deficiencies in the area. Maintenance of the bank rehabilitation sites would occur for the service life of the facility and would involve restoring the sites to their as-built conditions. Maintenance repairs could address subsequent erosion at the site or riprap dislocation. Fencing along the top of the sheet pile walls would be repaired, as needed, should debris get caught in the cables or a tree fall on the fence. Vegetation planted as part of the Project would be monitored and maintained to ensure plants are fully established, consistent with regulatory permit requirements. Valley Water would continue vegetation maintenance for weed management and fire suppression, consistent with current practice.

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 2-6**. Additional environmental measures, not avoidable through standard construction BMPs, are developed to mitigate specific impacts associated with Project implementation and are identified in Chapter 4 of this MND. 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 2-6. Best Management Practices

Air Quality	
AQ-1 Use Dust Control Measures	<p>The following Bay Area Air Quality Management District (BAAQMD) Dust Control Measures will be implemented:</p> <ol style="list-style-type: none"> 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 CCR Title 13, Section 2485), 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 manufacturers specifications, and all equipment shall be checked by a certified visible emissions evaluator; 9. Correct tire inflation shall be maintained in accordance with manufacturers 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 Avoid Stockpiling Odorous Materials	<p>Materials with decaying organic material, or other potentially odorous materials, will be handled in a manner that avoids impacting residential areas and other sensitive receptors, including:</p> <ol style="list-style-type: none"> 1. Avoid stockpiling potentially odorous materials within 1,000 feet of residential areas or other odor sensitive land uses; and 2. Odorous stockpiles will be disposed of at an appropriate landfill.
AQ-3 Reduce Construction-related NO_x Emissions	<p>Nitrogen oxide (NO_x) construction mitigation measures recommended by BAAQMD will be implemented, including the following:</p> <ul style="list-style-type: none"> • 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.

	<ul style="list-style-type: none"> • 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. • 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 (CARB) 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. • 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. • A visual survey of all in-operation equipment will be made at least weekly.
Biological Resources	
BI-1 Remove Temporary Fill	Temporary fill materials, such as for diversion structures or cofferdams, will be removed upon finishing the work or as appropriate. The creek channels and banks will be re-contoured to match pre-construction conditions to the extent possible. Low-flow channels within non-tidal streams will be contoured to facilitate fish passage and will emulate the preconstruction conditions as closely as possible, within the finished channel topography.
BI-2 Avoid Impacts to Nesting Migratory Birds	<p>Prior to the start of construction activities that begin during the migratory bird nesting period (between January 15 and August 31 of any year), Valley Water shall retain a qualified wildlife biologist to conduct a survey for nesting raptors and migratory birds that could nest along the Project corridor. Surveys will cover all suitable raptor and migratory bird nesting habitat that will be impacted directly or by disturbance, including habitat potentially used by ground-nesting migratory bird species.</p> <p>All migratory bird nesting surveys will be performed no more than 7 days prior to any Project-related activity that could pose the potential to affect migratory birds. With the exception of raptor nests, inactive bird nests may be removed. No birds, nests with eggs, or nests with hatchlings will be disturbed.</p>
BI-3 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-4 Choose Local Ecotypes of Native Plants and Appropriate Erosion-	<p>Whenever native species are prescribed for installation the following steps will be taken by a qualified biologist or vegetation specialist:</p> <ol style="list-style-type: none"> 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.

Control Seed Mixes	<p>Also, consult a qualified biologist or vegetation specialist to determine which seeding option is ecologically appropriate and effective, specifically:</p> <ol style="list-style-type: none"> 1. For areas that are disturbed, an erosion control seed mix may be used consistent with the <i>Valley Water Guidelines and Standards for Land Use Near Streams, Design Guide 5, 'Temporary Erosion Control Options.'</i> 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. If a gravel has been used to prevent soil compaction, this material may be left in place [if ecologically appropriate] instead of seeding. <p>Seed selection shall be ecologically appropriate as determined by a qualified biologist, per <i>Guidelines and Standards for Land Use Near Streams, Design Guide 2: Use of Local Native Species.</i></p>
BI-5 Restore Riffle/Pool Configuration of Channel Bottom	<p>The channel bottom shall be re-graded at the completion of work and restored to as close to the pre-Project conditions and contours as possible.</p>
BI-6 Avoid Animal Entry and Entrapment	<p>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.</p> <p>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:</p> <ol style="list-style-type: none"> 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 3. 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-7 Minimize Predator-Attraction	<p>Remove trash daily from the worksite to avoid attracting potential predators to the site.</p>
BI-8 Minimize Spread of Invasive Plants	<p>The spread of invasive nonnative plant species and plant pathogens will be avoided or minimized by implementing the following measures:</p> <ol style="list-style-type: none"> 1. Construction equipment will arrive at the Project clean and free of soil, seed, and plant parts to reduce the likelihood of introducing new weed species.

	<ol style="list-style-type: none"> Any imported fill material, soil amendments, gravel, etc., required for construction activities that will be placed within the upper 12 inches of the ground surface will be free of vegetation and plant material. Certified weed-free imported erosion control materials (or rice straw in upland areas) will be used exclusively.
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Cultural Resources

CU-1 Accidental Discovery of Archaeological Artifacts, Tribal Cultural Resources, or Burial Remains	<p>If historical or unique archaeological artifacts, or tribal cultural resources, 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 PRC Section 21083.2 and CCR Section 15126.4. 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 PRC Section 21083.2 and Section 15126.4 of the CEQA Guidelines. If a tribal cultural resource cannot be avoided, the Action Plan will include notification of the appropriate Native American tribe, and consultation with the tribe regarding acceptable recovery options.</p> <p>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 100 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.</p>
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Hazards and Hazardous Materials

HM-1 Comply with All Pesticide Application Restrictions and Policies	<p>Pesticide products are to be used only after an assessment has been made regarding environmental, economic, and public health aspects of each of the alternatives by the Valley Water Pest Control Advisor (PCA). All pesticide use will be consistent with approved product specifications. Applications will be made by, or under the direct supervision of, State Certified applicators under the direction of, or in a manner approved by the PCA.</p>
HM-2 Comply with All Pesticide Usage Requirements	<p>All projects that propose ongoing use of pesticides will comply with all provisions of Q751D02: Control and Oversight of Pesticide Use, including, but not necessarily limited to the following:</p> <ol style="list-style-type: none"> All pest control methods will be performed only after a written Pest Control Recommendation for use has been prepared by Valley Water’s PCA in accordance with requirements of the California Food and Agricultural Code. F751D01 – Pest Control Recommendation & Spray Operators Report will be completed for each pesticide application.
HM-3 Comply with Restrictions on Herbicide Use	<p>Consistent with provisions of Q751D02: Control and Oversight of Pesticide Use, only herbicides and surfactants registered for aquatic use will be applied within the banks of channels within 20 feet of any water present.</p> <p>Furthermore, aquatic herbicide use will be limited to June 15 through October 31 with an extension through December 31 or until the first occurrence of local rainfall greater</p>

in Aquatic Areas	than 0.5 inches is forecasted within a 24-hour period from planned application events according to the National Weather Service. If rain is forecast, then application of aquatic herbicide will be rescheduled.
HM-4 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 in the Project area.
HM-5 Ensure Proper Vehicle and Equipment Fueling and Maintenance	<p>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).</p> <ol style="list-style-type: none"> 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 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. 5. 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 waterway or flood plain.
HM-6 Ensure Proper Hazardous Materials Management	<p>Measures will be implemented to ensure that hazardous materials are properly handled and the quality of water resources is protected by all reasonable means.</p> <ol style="list-style-type: none"> 1. Prior to entering the work site, all field personnel will know how to respond when toxic materials are discovered. 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 percent of the primary container(s). 6. The discharge of any hazardous or non-hazardous waste as defined in CCR Division 2, Subdivision 1, Chapter 2 will be conducted in accordance with applicable State and federal regulations. 7. In the event of any hazardous material emergencies or spills, personnel will call the Chemical Emergencies/Spills Hotline at 1-800-510-5151.

HM-7 Utilize Spill Prevention Measures	<p>Prevent the accidental release of chemicals, fuels, lubricants, and non-storm drainage water following these measures:</p> <ol style="list-style-type: none"> 1. Field personnel will be appropriately trained in spill prevention, hazardous material control, and cleanup 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-8 Incorporate Fire Prevention Measures	<ol style="list-style-type: none"> 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. 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 and Water Quality	
WQ-1 Limit Impact of Pump and Generator Operation and Maintenance	<p>Pumps and generators will be maintained and operated in a manner that minimizes impacts to water quality and aquatic species.</p> <ol style="list-style-type: none"> 1. Pumps and generators will be maintained according to manufacturers' specifications to regulate flows to prevent dry-back or washout conditions. 2. Pumps will be operated and monitored to prevent low water conditions, which could pump muddy bottom water, or high-water conditions, which creates ponding. 3. Pump intakes will be screened to prevent uptake of fish and other vertebrates. Pumps will be screened according to National Marine Fisheries Service (NMFS) criteria. 4. Sufficient back-up pumps and generators will be on site to replace defective or damaged pumps and generators.
WQ-2 Limit Impacts from Staging and Stockpiling Materials	<ol style="list-style-type: none"> 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 spoils) will be contained within the existing access 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. 3. No runoff from the staging areas may be allowed to enter water ways without being subjected to adequate filtration (e.g., vegetated buffer, swale, hay wattles or bales, silt screens).

	<p>4. The discharge of decant water to water ways from any on site temporary sediment stockpile or storage areas is prohibited.</p> <p>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.</p>
<p>WQ-3</p> <p>Use Seeding for Erosion Control, Weed Suppression, and Site Improvement</p>	<p>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 (OHWM) of the flood basin and the mean high higher tide line on the Bay side of the work area.</p> <p>The seed mix should consist of California native grasses, (for example <i>Hordeum brachyantherum</i>; <i>Elymus glaucus</i>; and annual <i>Vulpia microstachyes</i>) or annual, sterile hybrid seed mix (e.g., Regreen™, a wheat x wheatgrass hybrid).</p>
<p>WQ-4</p> <p>Maintain Clean Conditions at Work Sites</p>	<p>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.</p> <p>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</p> <p>Upon completion of work, all building materials, debris, unused materials, concrete forms, and other construction-related materials will be removed from the work site.</p>
<p>WQ-5</p> <p>Manage Drilling Materials</p>	<p>All materials or waters generated during drilling will be safely handled, properly managed, and disposed of according to all applicable federal, State, and local statutes regulating such. In no case will these materials and/or waters be allowed to enter, or potentially enter waterways. Such materials/waters must not be allowed to move off the property where the work is being completed.</p>
<p>WQ-6</p> <p>Protect Groundwater from Contaminates via Drilling</p>	<p>Any substances or materials that may degrade groundwater quality will not be allowed to enter any boring. Lubricants used on drill bits, drill pipe, or tremie pipe will not be comprised of oily or greasy substances or other materials that may degrade groundwater quality.</p> <p>Well openings or entrances will be sealed or secured in such a way as to prevent the introduction of contaminants.</p>
<p>WQ-7</p> <p>Prevent Water Pollution</p>	<p>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.</p> <p>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:</p> <ol style="list-style-type: none"> 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. <p>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</p>

	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.
WQ-8 Prevent Stormwater Pollution	<p>To prevent stormwater pollution, the applicable measures from the following list will be implemented:</p> <ol style="list-style-type: none"> 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 OHWM 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: <ul style="list-style-type: none"> • 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). 6. 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-9 Manage Sanitary and Septic Waste	Temporary sanitary facilities will be located in compliance with California Division of Occupational Safety and Health (Cal/OSHA) regulation 8 CCR 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).
Traffic and Transportation	
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 Setting

Project Location

The Project is located along Calabazas Creek, which runs northeast for 13 miles through Saratoga, San Jose, Cupertino, Santa Clara, and Sunnyvale. The section of Calabazas Creek in the Project area is located in Cupertino and spans 0.7 miles between Miller Avenue (downstream end) and Bollinger Road (upstream end) (**Figures 2-1 and 2-2**). Bollinger Avenue forms the border between Cupertino (to the north) and San Jose (to the south). All 10 bank rehabilitation sites occur on property owned by Valley Water. Limited vehicle and equipment access or staging may occur on adjacent public property owned by the City of Cupertino (i.e., Creekside Park).

Surrounding Land Uses

The Project reach is bound by Miller Avenue to the north and Bollinger Avenue to the south. The Project area is primarily surrounded by single-family homes with backyard fences abutting the creek corridor. Creekside Park, which is owned and operated by the City of Cupertino, is located along the east side of the Project area for approximately 0.25-mile of the Project's length. Creekside Park features two large grass athletic fields, a playground, a small building for community events, restroom facilities, and a parking lot. A pedestrian bridge crosses Calabazas Creek just upstream of the confluence of Calabazas and Regnart Creeks, connecting Creekside Park to a trail running along the south side of Regnart Creek.

The City of Cupertino's General Plan land use map designates the areas surrounding the Project area primarily as Low Density Residential and Parks and Open Space, with limited areas of Low-Medium Density Residential and Medium Density Residential on the north end of the Project area (City of Cupertino 2019a).

Physical Environment

The Project area on Calabazas Creek is experiencing several areas of bank failure and erosion. The Project area has a history of erosion issues and various bank repairs and riprap, log revetment walls, and sacked concrete line portions of the creek banks. The creek and riparian corridor ranges from 60 feet wide to 175 feet wide (averages approximately 110 feet wide) and is bound by backyard and park fences. Riparian vegetation in the Project area is moderately dense and comprised of a mixture of native, non-native, and invasive species. Regnart Creek, a trapezoidal concrete-lined channel, flows into Calabazas Creek at a right angle approximately 0.2 miles upstream from the downstream end of the Project area. There is no pedestrian access to the Project area; however, a pedestrian bridge crosses over Calabazas Creek at its confluence with Regnart Creek. A sewage line, owned and operated by the City of Sunnyvale, crosses over Calabazas Creek approximately 0.1-mile north of the southern end of the Project area. **Figure 3-1** shows representative photographs of the Project area.

Figure 3-1. Representative Photographs of the Project Area



Site 1: Undercut existing concreted riprap at Miller Avenue.



Site 2: Confluence of Regnart and Calabazas Creek (scour hole).



Site 8: Vertical bank erosion and existing riprap.



Site 9: Bank erosion and existing sewer line crossing with log revetment.

Chapter 4

Environmental Evaluation

In accordance with CEQA, the following Initial Study Checklist is an analysis of the Project's potential environmental effects to determine whether an Environmental Impact Report (EIR) is needed. Answers to the checklist questions provide factual evidence and Valley Water rationale for determinations of the potential significance of impacts resulting from the Project.

The Initial Study checklist shows that the Project may have potentially significant effects on biological resources and from noise. Mitigation measures have been proposed for the Project to reduce potential effects to less than significant levels; therefore, the proposed MND is consistent with CEQA Guidelines Section 15070.

Environmental Checklist Form

1. Project Title:	Calabazas Creek Bank Rehabilitation Project
2. Lead Agency Name and Address:	Santa Clara Valley Water District 5750 Almaden Expressway San Jose CA 95118
3. Contact Person and Phone Number:	Alex Hunt (408) 630-3007
4. Project Location:	The Project is located at 10 discrete sites spread along approximately 0.7-mile of Calabazas Creek between Miller Avenue (downstream end) and Bollinger Road (upstream end) in the City of Cupertino.
5. Project Sponsor's Name and Address:	Santa Clara Valley Water District 5750 Almaden Expressway San Jose, CA 95118
6. General Plan Designation:	Low Density Residential, Low-Medium Density Residential, Medium Density Residential, and Parks and Open Space (City of Cupertino 2019a)
7. Zoning:	Single Family Residential, Open Space/Park, Residential Duplex, Multiple Family Residential (City of Cupertino 2019b)
8. Description of the Project:	The Project would involve bank rehabilitation at 10 sites involving the use of riprap and sheet pile walls.
9. Surrounding Land Uses and Setting:	The Project area bound by Miller Avenue (north) and Bollinger Avenue (south), with low density residential and Creekside Park occurring to the east and west.
10. Other public agencies whose approval is required:	<ul style="list-style-type: none">○ RWQCB – Section 401 Water Quality Certification and Construction General Permit○ USACE – Section 404 Individual Permit○ CDFW – Streambed Alteration Agreement○ City of Cupertino – Encroachment Permit; Tree Removal Permit; Traffic Plan; Temporary Sign Permit
11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1?	No California Native American tribes culturally affiliated with the Project area have requested consultation pursuant to PRC Section 21080.3.1.

Environmental Factors Potentially Affected


The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

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

Determination:

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	<input type="checkbox"/>
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.	<input checked="" type="checkbox"/>
I find that the proposed project MAY have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT is required.	<input type="checkbox"/>
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.	<input type="checkbox"/>
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.	<input type="checkbox"/>


Signature

9/18/2020
Date

Alex Hunt
Associate Environmental Planner
Valley Water

Aesthetics

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulatory Setting

Aesthetic values are protected indirectly through a variety of federal, State, and local laws and programs. The federal government does not explicitly regulate visual quality but recognizes its importance and preserves aesthetic values through the National Park, National Wildlife Refuge, National Monument, and National Scenic Byway Systems. At the State level, aesthetic values are preserved through the establishment of State parks and preserves, and through the California Scenic Highway Program. In addition, although local jurisdictions are not required to address visual resources as a separate topic in their general plans, several of the required general plan elements—including land use, conservation, and open space—relate indirectly to the aesthetic issues faced by communities as they manage their growth. General plans may also contain additional elements on topics of concern to the local community; common themes that bear on aesthetics and visual resources include recreation and parks, community design, and heritage or cultural resources.

The Land Use/Community Design Element of the Cupertino General Plan includes policies intended to shape the aesthetic character of the City; however, these policies are not relevant to the Project as they pertain to city gateways, building design, and other urban characteristics.

Existing Conditions

The Project occurs in the Calabazas Creek corridor and is primarily surrounded by single family residential properties with fenced backyards abutting the creek. Creekside Park, managed by the City of Cupertino, also borders the Project area along the east side of the creek for approximately 1,100 linear feet. The Project area is bound by Miller Avenue and Bollinger Road at the north and south ends respectively.

A vast majority of the Project area is not visible from any publicly accessible area. Views of the Project area are limited to pedestrian views from Miller Avenue and Bollinger Road, as well as a short pedestrian bridge (Creekside Trail) over Calabazas Creek at the confluence with Regnant

Creek. Views of the Project area from these locations are generally obscured by residential fences, surrounding riparian vegetation, the low elevation of the site, and the fact that the channel is deeply incised and difficult to view unless in the immediate proximity. There is no public access to the creek channel itself, where the Project area may be viewed more directly.

There are no scenic vistas or scenic resources such as rock outcroppings or historic buildings in the Project area. The nearest scenic highway to the Project area is California Highway 9 (CA-9), located approximately 3.5 miles west of the Project area (Caltrans 2019). The Project area is not visible from I-280 or any other scenic highways.

Discussion

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

The Project area and vicinity do not include any scenic vistas, as the Project area is at low elevation in a developed residential area. Views toward the Project area are from private residences, Creekside Park, and abutting streets, and views from these areas are largely screened by vegetation and fencing. Project activities would occur within the incised creek channel and bank repairs would only minimally alter existing grades. The staging area in the northwest corner of Creekside Park would be adjacent to existing fencing and a multi-family residential property and would not affect any scenic vistas. Therefore, there would be **no impact** on scenic vistas.

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

The State Scenic Highways program, a provision of the Streets and Highways code, was established to preserve and enhance the natural beauty of California. CA-9 is the nearest designated state scenic highway to the Project area (Caltrans 2019). This roadway is approximately 3.5 miles west of the Project area, and the Project would not be visible from this highway. There are no Designated or Eligible State Scenic Highways within the Project viewshed; therefore, the Project would have **no impact** on scenic resources within a state scenic highway.

c) Would the Project, in nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?

The Project occurs in an urbanized setting, with public views of the Project area limited to Miller Avenue, Bollinger Road, the bridge crossing (Creekside Trail), and residential backyards. As such, most of the Project area is not publicly visible, and those views that are available are largely obscured by fencing, vegetation, and the incised creek channel. However, the staging area in Creekside Park would be visible from other parts of the park, but the presence of the staging area would not substantially degrade the visual character of the site given its small size and placement in the corner of the park along an existing fence and multi-family residential property. The staging area would only be present from April 15th through October 15th during the two years of construction.

Project activities would generally involve repair and reconstruction of eroding banks with only minor changes to existing grades. Most rehabilitated banks would remain natural in appearance (i.e., riprap with a soil covering). At Sites 5 and 8, an approximately 20-foot tall metal sheet pile wall would be installed in front of the vertical earthen bank, which would

modify the visual character of the bank. However, views of these sites are not available from any publicly accessible location. At Sites 9 and 10, the wall would be pressed in mid-bank, with only approximately 5 feet of the wall initially exposed. In time, the natural substrates and vegetation on the creek side of the wall may erode, exposing up to 12 feet of the wall, but the widening of the creek channel itself provides its own aesthetic values. The southern end of Sites 9 and 10 are partially visible from the sidewalk on Bollinger Road, but are obscured by their distance from these sites (150 to 700 feet north of the road), chain link fencing, and vegetation. As a result, bank rehabilitation work would not substantially degrade the existing visual character of the publicly available views of Calabazas Creek.

In addition to the bank rehabilitation work itself, an estimated 32 trees would also be removed as part of the Project. These trees are approximately half native (primarily oaks) and half non-native or invasive, with a fairly even size distribution of trees between 2 inches diameter at breast height (DBH) to over 30 inches DBH. Eight of the 32 trees are greater than 24 inches DBH. However, most of these trees would not be visible to the public. Removed trees would be replaced consistent with the City of Cupertino's tree ordinance (evaluated under *Biological Resources*, below). The only locations where vegetation removal would be partially visible from publicly accessible locations would be at Sites 9 and 10. However, these trees are over 150 feet from the viewpoint, behind chain link fencing, and shielded by trees that would remain in place. Furthermore, native trees (e.g., holly oak, elderberry, and cherry) and understory vegetation would be planted along the bank above the sheet pile wall, which would maintain the aesthetic quality of these areas.

Therefore, the Project would not substantially degrade the existing visual character or quality of the area and the impact would be **less than significant**.

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

Streetlights, vehicle head and taillights, and lighting associated with existing residential development provide sources of light and glare in the Project area and immediate vicinity. The Project would not construct new facilities or structures which could result in a new source of light or glare. Construction activities would occur during daylight hours only and temporary construction lighting would not be necessary. Therefore, the Project would not create a new source of substantial light or glare and would not adversely affect day or nighttime views in the area. There would be **no impact**.

Agriculture and Forestry Resources

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

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

Regulatory Setting

Farmland Mapping and Monitoring Program

The CDC maintains the Farmland Mapping and Monitoring Program (FMMP), which is the only statewide agricultural land use inventory conducted on a regular basis to monitor changes in agricultural use. Farmlands are divided into the following categories based on their suitability for agriculture: prime farmland, farmland of statewide importance, unique farmland, farmland of local importance, grazing land, and other lands. Additional categories used in the FMMP mapping system include urban and built-up lands, and lands committed to non-agricultural use.

California Land Conservation Act of 1965 (Williamson Act)

The California Land Conservation Act of 1965, also known as the Williamson Act, is the State's principal agricultural land protection program. The Williamson Act provides a property tax

incentive for the voluntary enrollment of agricultural and open space lands in contracts between local government and landowners. The contract, which last a minimum of 10 years, restricts the land to agricultural and open space uses and compatible uses defined in State law and local ordinances.

Existing Conditions

The Project is surrounded by residential and public park land uses, and agricultural lands are absent from the Project area and vicinity. The nearest agricultural area is over 3 miles west of the Project area. The Project area is not subject to an existing Williamson Act contract (CDC 2016a) and is not zoned for agricultural use by the City of Cupertino. The Project area is classified as urban and built-up land under the FMMP. Urban and Built-Up Land is characterized by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. Common examples of urban and built-up land include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures (CDC 2016b). Similarly, the Project area does not qualify as a forest resource.

Discussion

- a) **Would the Project convert prime farmland, unique farmland, or farmland of statewide importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

No prime farmland, unique farmland, or farmland of statewide importance is located in the Project area. Therefore, no conversion of prime farmland, unique farmland, or farmland of statewide importance to other uses would occur from Project implementation. There would be **no impact**.

- b) **Would the Project conflict with existing zoning for agricultural use, or a Williamson Act contract?**

The Project area is located on a creek corridor owned by Valley Water and is not a part of any Williamson Act contract (CDC 2016). Given the surrounding development, the Project would not result in farmland conversion, conflict with a Williamson Act contract, or conflict with existing agricultural zoning. **No impact** would occur.

- c) **Would the Project conflict with existing zoning for, or cause rezoning of, forest land (as defined in PRC Section 12220(g)), timberland (as defined by PRC Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?**

The Project area is located in a narrow riparian corridor abutted by residential development and a public park. No forest land as defined in PRC Section 12220(g), or timberland as zoned by Government Code Section 51104(g) is located in the Project area. Therefore, **no impact** would occur.

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

The project site is not located on forest land, timberland, or timberland zoned as Timberland Production. Therefore, **no impact** would occur.

While the Project does occur in a narrow riparian forest, the Project would not convert forest land to non-forest use. The project site is not located on timberland or land zoned for timberland production. Therefore, **no impact** would occur.

- e) **Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use?**

See discussions under “a” and “c” above. **No impact** would occur.

Air Quality

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of applicable air quality plans?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Regulatory Setting

The U.S. Environmental Protection Agency (EPA) and CARB regulate direct emissions from motor vehicles. The Bay Area Air Quality Management District (BAAQMD) is the regional agency primarily responsible for regulating air pollution emissions from stationary sources (e.g., factories) and indirect sources (e.g., traffic associated with new development), as well as monitoring ambient pollutant concentrations.

Federal Clean Air Act

The federal Clean Air Act (CAA) of 1970 authorized the establishment of national health-based air quality standards and also set deadlines for their attainment. The CAA Amendments of 1990 changed deadlines for attaining national standards as well as the remedial actions required of areas of the nation that exceed the standards. Under the CAA, State and local agencies in areas that exceed the national standards are required to develop State Implementation Plans to demonstrate how they will achieve the national standards by specified dates.

California Clean Air Act

In 1988, the California Clean Air Act (CCAA) required that all air districts in the State endeavor to achieve and maintain California Ambient Air Quality Standards for carbon monoxide (CO), ozone, sulfur dioxide (SO₂), nitrogen dioxide (NO₂), and suspended particulate matter (PM) by the earliest practical date. The CCAA provides districts with authority to regulate indirect sources and mandates that air quality districts focus particular attention on reducing emissions from transportation and area-wide emission sources. Each nonattainment district is required to adopt a plan to achieve a 5 percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each nonattainment pollutant or its precursors. A Clean Air Plan shows how a district would reduce emissions to achieve air quality standards. Generally, the State standards for these pollutants are more stringent than the national standards.

Bay Area Air Quality Management District

In June 2010, the BAAQMD adopted significance thresholds for agencies to use to assist with environmental review of projects under CEQA. These thresholds were designed to establish the

level at which the BAAQMD believed air pollutant emissions would cause significant impacts under CEQA. A decision by the California Supreme Court in late 2015 confirmed that local agencies may rely on BAAQMD's thresholds when analyzing project impacts on air quality.

As outlined in the current BAAQMD Air Quality Guidelines (BAAQMD 2017), the first step in determining the significance of construction-related criteria air pollutants and precursors is to compare the attributes of a project with the applicable screening criteria listed in Chapter 3 of the Air Quality Guidelines. If all of the screening criteria are met by a proposed project, then the lead agency would not need to perform a detailed air quality assessment of its project's air pollutant emissions, and the lead agency may conclude that the project would not result in a significant impact to air quality.

This preliminary screening provides the lead agency with a conservative indication of whether the project would result in the generation of construction-related criteria air pollutants and/or precursors that exceed the thresholds of significance for construction-related criteria air pollutants and precursors, as shown in **Table 4-1**.

Table 4-1. Thresholds of Significance for Construction-Related Criteria Air Pollutants/Precursors

Pollutant/Precursor	Daily Average Emissions (lbs/day)
ROG	54
NO _x	54
PM ₁₀	82*
PM _{2.5}	54*

Notes:

* Applies to construction exhaust emissions only.

NO_x = oxides of nitrogen

PM_{2.5} = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less.

PM₁₀ = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less

ROG = reactive organic gases

Source: BAAQMD 2017

Existing Conditions

The Project area is located within the San Francisco Bay Air Basin, which is under the jurisdiction of the BAAQMD. Regional and local air quality in the basin is impacted by topography, dominant airflows, atmospheric inversions, location, and season.

Both the State and federal government have established health-based Ambient Air Quality Standards for six criteria air pollutants including CO, ozone, NO₂, SO₂, lead, and suspended PM. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Reactive organic gases (ROG) are formed from combustion of fuels and evaporation of organic solvents. ROG are an ozone precursor and a prime component of the photochemical reaction that forms ozone. NO_x (compounds of NO₂), a reddish-brown gas, and nitric oxide (NO), a colorless and odorless gas, are formed from fuel combustion under high temperature or pressure. NO_x is a primary component of the photochemical smog reaction. Fine suspended PM with an aerodynamic diameter of 2.5 microns or less is referred to as PM_{2.5}; PM with coarse particles that are larger than 2.5 microns but smaller than 10 microns is referred to as PM₁₀.

Toxic air contaminants (TACs) are a defined set of airborne pollutants that may pose a present or potential hazard to human health. A wide range of sources from industrial plants to motor vehicles emit TACs. TACs are generally regulated through State and local risk management

programs designed to eliminate, avoid, or minimize the risk of adverse health effects from exposure to TACs. One TAC of concern for the Project is diesel particulate matter (DPM). TACs are regulated by CARB with various airborne toxic control measures, which are aimed at minimizing the risk of exposure.

Sensitive Receptors

Those who are considered sensitive to air pollution include children, the elderly, and persons with pre-existing respiratory or cardiovascular illness. Therefore, sensitive receptors are defined as residential uses, schools, daycare centers, nursing homes, and medical centers. Single- and multi-family residences are considered sensitive receptors, which occur adjacent to a majority of the Project area. Aside from these residences, the nearest sensitive receptors to the Project area include the Purglen of Cupertino Assisted Living Facility located approximately 550 feet east of the Project area, the Kaiser Permanente Hospital located 0.25-mile north, and three schools located between 0.2- and 0.3-mile east.

Attainment Status

CARB is required to designate areas of the State as attainment, nonattainment, or unclassified for all State standards. An attainment designation for an area signifies that pollutant concentrations did not violate the standard for that pollutant in that area. A nonattainment designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. An unclassified designation signifies that data does not support either an attainment or nonattainment status. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The EPA also designates areas as attainment, nonattainment, or classified. The San Francisco Bay Area is classified as non-attainment under the State and federal 8-hour ozone standard; non-attainment for both the annual arithmetic mean and the 24-hour standard for coarse PM (PM_{10}) standard under the State standard; and non-attainment for fine PM ($PM_{2.5}$) under the annual arithmetic mean under the State standard and non-attainment under the federal 24-hour standard.

The Project area is located in a nonattainment area for the State and federal 8-hour ozone standard; both the annual arithmetic mean and the 24-hour standard for PM_{10} under the State standard; and for $PM_{2.5}$ under the annual arithmetic mean under the State standard and non-attainment under the federal 24-hour standard.

Discussion

This air quality impact analysis considers construction-related impacts to air quality associated with the Project against the BAAQMD thresholds of significance. Equipment, trucks, worker vehicles, and ground-disturbing activities associated with Project construction and maintenance would generate temporary emissions of criteria air pollutants and precursors.

a) Would the Project conflict with or obstruct implementation of applicable air quality plans?

The most recently adopted BAAQMD air quality plan is the Spare the Air – Cool the Climate 2017 Clean Air Plan (2017 Plan). The 2017 Plan focuses on two closely-related goals: protecting impacted communities and promoting social equity, and protecting the climate. Consistency with the 2017 Plan can be determined if a project does the following: 1) supports the goals of the 2017 Plan; 2) includes applicable control measures from the 2017 Plan; and 3) would not disrupt or hinder implementation of any control measures from the 2017 Plan.

Project consistency with the mobile source measures, land use and local impact measures, and energy measures is described below:

- *Mobile Source and Transportation Control Measures.* The BAAQMD identifies control measures as part of the 2017 Plan to reduce ozone precursor emissions from stationary, area, mobile, and transportation sources. The Transportation Control Measures are designed to reduce emissions from motor vehicles by reducing vehicle trips and vehicle miles traveled (VMT) in addition to vehicle idling and traffic congestion. The Project would rehabilitate eroding banks in 10 locations with the use of riprap or sheet pile walls. There would be no increase in VMT as a result of this Project, as the Project would not generate additional vehicle trips aside from construction-related trips. Therefore, the Project would not conflict with the transportation and mobile source control measures from the 2017 Plan.
- *Land Use and Local Impacts Measures.* The 2017 Plan includes Land Use and Local Impacts Measures to achieve the following: promote mixed-use, compact development to reduce motor vehicle travel and emissions; and ensure that planned growth is focused in a way that protects people from exposure to air pollution from stationary and mobile sources of emissions. The Project would not conflict with the Land Use and Local Impacts Measures identified in the 2017 Plan as the Project does not modify land use or induce growth.
- *Energy and Climate Measures.* The 2017 Plan also includes Energy and Climate Measures, which are designed to reduce ambient concentrations of criteria pollutants and reduce emissions of carbon dioxide (CO₂). Implementation of these measures is intended to promote energy conservation and efficiency in buildings, promote renewable forms of energy production, reduce the “urban heat island” effect by increasing reflectivity of roofs and parking lots, and promote the planting of trees with low volatile organic compound (VOC) emissions to reduce biogenic emissions, lower air temperatures, provide shade, and absorb air pollutants. The energy measures of the 2017 Plan are not applicable to the Project, as the Project would not include the construction of any buildings or parking lots.

As discussed above, implementation of the Project would not disrupt or hinder implementation of the applicable measures outlined in the 2017 Plan, including Mobile Source and Transportation Control Measures, Land Use and Local Impacts Measures, and Energy and Climate Measures. Therefore, there would be **no impact**.

- b) **Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or State ambient air quality standard?**

Construction Emissions

Project construction would result in tailpipe emissions from construction vehicles and equipment, as well as fugitive dust generated by ground-disturbing activities. Construction emissions were calculated using the California Emissions Estimator Model (CalEEMod; Version 2016.3.2) to document the anticipated emissions (**Appendix B**). Estimated maximum daily construction emission with BMPs implemented are summarized in **Table 4-2**.

During Project construction, short-term degradation of air quality may occur due to the release of particulate emissions generated by construction activities. In addition to dust-related PM₁₀ emissions, heavy trucks and construction equipment powered by gasoline and diesel engines

would generate CO, NO_x, ROG, and some soot particulate (PM_{2.5} and PM₁₀) in exhaust emissions. If construction temporarily increased traffic in the vicinity of the Project area, CO and other emissions from traffic would increase slightly. These emissions would be temporary and limited to the immediate area surrounding construction activities. BMP AQ-1 (*Use Dust Control Measures*) and AQ-3 (*Reduce Construction-related NO_x Emissions*) would reduce short-term air quality impacts, though the effect of these measures has not been accounted for in the emissions presented in **Table 4-2**.

As shown in **Table 4-2**, Project construction would not generate maximum daily emissions exceeding the significance thresholds in any year of construction. As a result, potential impacts associated with construction emissions would be **less than significant**. Because the emissions shown in Table 4-2 do not incorporate implementation of BMP AQ-1 and BMP AQ-3, the emissions from the Project are expected to be even lower than the figures shown in Table 4-2.

Table 4-2. Construction Emissions without BMPs Incorporated

Construction Year	Construction Emissions (pounds/day)						
	ROGs ^a	NO _x ^a	CO	PM ₁₀ Fugitive Dust	PM ₁₀ Exhaust	PM _{2.5} Fugitive Dust	PM _{2.5} Exhaust
2021	0.6	6.7	4.28	0.3	0.3	0.2	0.3
2022	0.5	4.6	4.28	0.3	0.2	0.2	0.3
Significance Thresholds Exceed Thresholds?	54 No	54 No	N/A^b -	BMPs -	82 No	BMPs -	54 No

^a ROG and NO_x are ozone precursors.

^b The BAAQMD does not establish significance thresholds for CO emissions during construction.

Operational Emissions

Operational emissions impacts are long-term air emission impacts associated with area sources and mobile sources involving any change related to the Project. Once construction is complete, there could be minor and infrequent maintenance of the bank rehabilitation work (e.g., fence repair, minor riprap corrections, plant maintenance). This work is expected to be less frequent and smaller in scale than maintenance work currently occurring in the Project reach, as the Project would rehabilitate the primary deficiencies in the area. Therefore, potential impacts from operational emissions would be **less than significant**.

Localized Carbon Monoxide

The Project would not conflict with the Santa Clara Valley Transportation Authority's (VTA) Congestion Management Plan or other agency plans with oversee localized CO emissions. Therefore, the Project would not result in localized CO concentrations that exceed State or federal standards, and the impact would be **less than significant**.

c) Would the Project expose sensitive receptors to substantial pollutant concentrations?

Sensitive receptors are defined as residential uses, schools, daycare centers, nursing homes, and medical centers. Individuals particularly vulnerable to DPM and substantial pollutant concentrations are children, whose lung tissue is still developing, and the elderly, who may have serious health problems that can be aggravated by exposure to DPM. Exposure from

diesel exhaust associated with construction activity could contribute to both cancer and chronic non-cancer health risks.

During construction, various diesel-powered vehicles and equipment would be used. In 1998, CARB identified PM from diesel-fueled engines as a TAC. CARB has completed a risk management process that identifies potential cancer risks for a range of activities using diesel-fueled engines. High volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic (e.g., distribution centers and truck stops) were identified as having the highest associated risk.

Health risks from TACs are a function of both concentration and duration of exposure. Unlike the above types of sources, construction diesel emissions are temporary, affecting an area for a limited period of time, whereas health risks are based on a 70-year risk duration. Additionally, construction-related emissions sources are mobile and transient in nature and are limited to the Project area. The nearest sensitive receptors to the Project area include the single- and multi-family residences located adjacent to the Project area, the Purglen of Cupertino Assisted Living Facility located approximately 550 feet east, the Kaiser Permanente Hospital located 0.25-mile north, and three schools located between 0.2- and 0.3-mile east.

Project construction would be phased over two construction seasons spanning from mid-April through mid-October for a total of up to 12 months. The construction period is considered short relative to the 70-year health risk exposure analysis period. In addition, as shown in **Table 4-2**, Project construction PM₁₀ exhaust emissions (the primary source of construction TAC emissions) would not exceed 0.3 pounds per day in any given year, which is well below the BAAQMD's threshold for PM₁₀ exhaust emissions of 84 pounds per day. Because maintenance work would be minor and infrequent, emissions from maintenance would be negligible. Therefore, impacts to sensitive receptors from DPM and TACs would be **less than significant**.

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

Odors are generally regarded as an annoyance rather than a health hazard and the ability to detect odors varies considerably and is considered subjective. During construction, limited odors may occur from equipment exhaust or spoils generated during construction. Adjacent residences or park users are the most likely receptor of such odors, but impacts from odors would be minor given the short-term duration of work at any given location, the distances from the emissions sources to receptors, and shielding by fencing, creek banks, and vegetation. In addition, BMP AQ-2 (*Avoid Stockpiling Odorous Materials*) would require that odorous materials are handled in a manner that avoids impacting the surrounding receptors. Therefore, the Project would not create objectionable odors affecting a substantial number of people and the impact would be **less than significant**.

Biological Resources

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

An evaluation of potential impacts to biological resources within the Project area is based on a Biological Site Assessment prepared by the Valley Water, Environmental Mitigation and Monitoring Unit in August 2020 to evaluate potential impacts to sensitive biological resources associated with the Project (**Appendix C**). An Aquatic Resources Delineation Report was prepared by WRA, Inc. (**Appendix D**).

Regulatory Setting

Biological resources in the Project area are protected by numerous federal, State, and local regulations, including the Federal Endangered Species Act (ESA), Migratory Bird Treaty Act, the California Endangered Species Act (CESA) and other regulations under the California Fish and Game Code (F&G Code), the California Native Plant Protection Act (CNPPA), and the City of Cupertino Tree Ordinance.

Federal

Endangered Species Act

FESA (16 U.S. Government Code (USC) Section 1531 et seq.) protects fish and wildlife species that are listed as threatened or endangered and their habitats. Endangered refers to species, subspecies, or distinct population segments that are in danger of extinction in all or a significant portion of their range. Threatened refers to species, subspecies, or distinct population segments that are considered likely to become endangered in the future. FESA is administered by the United States Fish and Wildlife Service (USFWS) for terrestrial and freshwater species and by NMFS for marine and anadromous species. FESA prohibits “take” of any fish or wildlife species listed by the federal government as endangered or threatened.

Section 7 of the FESA requires federal agencies to consult with the USFWS and/or NMFS, as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat. Section 9 prohibits the take of any plant, fish, or wildlife species listed under FESA as endangered, unless otherwise authorized by federal regulations. Section 10 establishes a process by which private parties can obtain permission for incidental take permits for unintended take that may occur during projects, such as through habitat conservation plans (HCP).

Migratory Bird Treaty Act

The MBTA (16 USC Section 703–712 et seq.) enacted the provisions of treaties between the United States, Great Britain, Mexico, Japan, and the Soviet Union, and authorizes the U.S. Secretary of the Interior to protect and regulate take of migratory birds. The MBTA is administered by USFWS. It establishes seasons and bag limits for hunted species, and renders taking, possession, import, export, transport, sale, purchase, and barter of migratory birds, their occupied nests, and their eggs illegal except where authorized under the terms of a valid federal permit. Activities for which permits may be issued include scientific collecting; falconry and raptor propagation; “special purposes,” which include rehabilitation, education, migratory game bird propagation, and miscellaneous other activities; control of depredating birds; taxidermy; and waterfowl sale and disposal. More than 800 species of birds are protected under the MBTA. Specific definitions of “migratory bird” are discussed in each of the international treaties; in general, however, species protected under the MBTA are those that migrate to complete different stages of their life history or to take advantage of different habitat opportunities during different seasons.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 USC 668 et seq.) makes it unlawful to import, export, take, sell, purchase, or barter any bald eagle or golden eagle, or their parts, products, nests, or eggs. Take includes pursuing, shooting, poisoning, wounding, killing, capturing, trapping, collecting, molesting, or disturbance. Exceptions may be granted by the USFWS for scientific or exhibition use, or for traditional and cultural use by Native Americans. However, no permits may be issued for import, export, or commercial activities involving eagles.

Clean Water Act Section 404

The CWA (33 USC 1251 et seq.) is the primary federal law protecting the quality of the nation's surface waters, including wetlands. Under Section 404, the USACE and EPA regulate the discharge of dredged and fill materials into the waters of the United States. Project sponsors must obtain a permit from USACE for discharges of dredged or fill materials into jurisdictional waters over which USACE determines that it will exert jurisdiction.

The USACE issues two types of permits under Section 404: general permits (either nationwide permits or regional permits) and standard permits (either letters of permission or individual permits). General permits are issued by the USACE to streamline the Section 404 process for nationwide, statewide, or regional activities that have minimal direct or cumulative environmental impacts on the aquatic environment. Standard permits are issued for activities that do not qualify for a general permit (i.e., that may have more than a minimal adverse environmental impact).

Clean Water Act Section 401

Section 401 of the CWA requires that an applicant pursuing a federal permit to conduct an activity that may result in a discharge of a pollutant obtain a Water Quality Certification (or waiver). A Water Quality Certification requires the evaluation of water quality considerations associated with dredging or placement of fill materials into waters of the United States. In 2019, the SWRCB adopted the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State under the Porter-Cologne Water Quality Control Act. The Procedures were intended to update and clarify the extent of waters of the State, and establish/update regulatory review requirements. The Procedures consist of four major elements: 1) a wetland definition; 2) a framework for determining if a feature that meets the wetland definition is a water of the State; 3) wetland delineation procedures; and 4) procedures for the submittal, review and approval of applications for Water Quality Certifications and Waste Discharge Requirements for dredge or fill activities. The Procedures became effective on May 28, 2020. Water Quality Certifications and Waste Discharge Requirements are issued by one of the nine geographically separated Regional Water Quality Control Boards in California. The Project falls within the jurisdiction of the San Francisco Bay RWQCB.

Valley Water would be required to obtain a Water Quality Certification and/or Waste Discharge Requirements for Project construction activities that involve disturbance or placement of dredged or fill material within waters of the United States/State.

State

California Endangered Species Act

CESA protects wildlife and plants listed as threatened and endangered by the California Fish and Game Commission, as well as species identified as candidates for such listing. It is administered by CDFW. CESA requires State agencies to conserve threatened and endangered species and thus restricts all persons from taking listed species except under certain circumstances. CESA defines take as any action or attempt to "hunt, pursue, catch, capture, or kill." Under certain circumstances, CDFW may authorize limited take, except for species designated as fully protected (see discussion of fully protected species under *California Fish and Game Code* below). The requirements for an application for an incidental take permit under CESA are described in F&G Code Section 2081 of the and in final adopted regulations for implementing Sections 2080 and 2081.

California Species of Special Concern

A Species of Special Concern (SSC) is a species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:

- is extirpated from the State or, in the case of birds, is extirpated in its primary season or breeding role;
- is listed as federally, but not State, threatened or endangered;
- meets the State definition of threatened or endangered but has not formally been listed;
- is experiencing, or formerly experienced, serious (nonscyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status;
- has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for State threatened or endangered status.

CDFW uses the administrative designation of SSC to achieve conservation and recovery of these animals before they meet the CESA criteria for listing. This administrative designation carries no formal legal status; however, the following analysis also considers Project impacts to designated SSC.

California Fish and Game Code

The California F&G Code provides protection from take for a variety of species, separate from and in addition to the protection afforded under CESA. The F&G Code defines take as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” Species identified in the F&G Code as fully protected may not be taken except for scientific research. Fully protected species are listed in various sections of the Code. For instance, fully protected birds in general are protected under Section 3511, nesting birds under Sections 3503.5 and 3513, and eggs and nests of all birds under Section 3503. Birds of prey are addressed under Section 3503.5. All other birds that occur naturally in California and are not resident game birds, migratory game birds, or fully protected birds are considered non-game birds and are protected under Section 3800. Section 3515 lists protected fish species and Section 5050 lists protected amphibians and reptiles. Section 4700 identifies fully protected mammals.

F&G Code Section 1602 requires an entity to notify CDFW before commencing an activity that will: 1) substantially divert or obstruct the natural flow, or substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or 2) deposit or dispose of debris, waste or other material where it may pass into any river, stream, or lake.

California Native Plant Protection Act

The CNPPA (Sections 1900 and 1913) requires all State agencies to utilize their authority to carry out programs to conserve endangered and rare native plants. It gives CDFW the power to designate native plants as endangered or rare and to protect endangered and rare plants from take.

Local

City of Cupertino Municipal Code - Protected Trees

Chapter 14.18 of the City of Cupertino Municipal Code contains regulations for the protection, preservation, and maintenance of trees of certain species and sizes (City of Cupertino 2019c). Removal of a protected tree requires a permit from the City. “Protected” trees include trees of a certain species and size in all zoning districts; heritage trees in all zoning districts; any tree required to be planted or retained as part of an approved development application, building permit, tree removal permit, or code enforcement action in all zoning districts; and approved privacy protection planting in R-1 zoning districts. Protected trees include heritage trees and as “mature specimen trees.” Heritage trees include “any tree or grove of trees which, because of factors including, but not limited to, its historic value, unique quality, girth, height or species, has been found by the Planning Commission to have a special significance to the community.” Mature specimen trees include the following species that have a minimum single trunk diameter of 12 inches or a minimum multi-trunk diameter of 24 inches measured as 4.5 feet from the natural grade (also known as diameter at breast height, or DBH): native oak tree species (*Quercus* spp.), including coast live oak (*Quercus agrifolia*), valley oak (*Quercus lobata*), black oak (*Quercus kelloggii*), blue oak (*Quercus douglasii*), and interior live oak (*Quercus wislizeni*); California buckeye (*Aesculus californica*); big leaf maple (*Acer macrophyllum*); deodar cedar (*Cedrus deodara*); blue atlas cedar (*Cedrus atlantica* ‘Glauca’); bay laurel or California bay (*Umbellularia californica*); and western sycamore (*Platanus racemosa*).

Although Valley Water is not subject to local tree regulations,¹ it will voluntarily comply with applicable requirements in the City’s tree ordinance including obtaining a permit before tree removal and complying with the permit conditions.

Existing Conditions

The Project area includes Calabazas Creek and riparian corridor up to the abutting fence lines between Miller Avenue and Bollinger Road. Calabazas Creek has a narrow riparian corridor that is constrained by surrounding residential development and is defined by steeply incised banks. Calabazas Creek in the Project area is highly modified and disturbed, with some remnant native overstory vegetation and a sparse understory comprised almost entirely of exotic species. The creek channel banks are highly eroded in many locations, and the remnant riparian corridor is thin and narrow due to encroachment from the adjacent residential area.

Information on land cover types, vegetation, and habitat conditions in the Project area were obtained during pedestrian reconnaissance-level surveys conducted by Valley Water and WRA, Inc. biologists. Valley Water Wildlife Biologist Shawn Lockwood conducted field surveys at the Project site on November 5 and 15, 2018, March 26, 2019, and May 29, 2019 (Sites 9 and 10 only). Senior Plant Ecologist Janell Hillman conducted a rare plant survey on November 5, 2018. A field wetland delineation was conducted by WRA on September 18 and 19, 2018. The purpose of these surveys was to determine the presence of and potential impacts to biological resources within the Project area. These surveys documented the physical habitat characteristics, assessed

¹ The municipal police power does not include the power to regulate entities operating under mandates set forth by state law. Courts have expressly applied this principal to water districts, which operate pursuant to the Water Code. See e.g., *Baldwin Park County Water Dist. v. Los Angeles County* (1962) 208 Cal.App.2d 87. Although Government Code § 53091 provides that local agencies must comply with applicable zoning ordinances, tree ordinances are not considered “zoning ordinances.”

the potential for occurrence of special-status species, and determined the potential impacts to sensitive biological resources.

Land cover types were determined using high resolution aerial imagery, direct observations through ground truthing, and collection of soil, vegetation, and hydrology field data. Waters of the United States within the Project area were delineated in accordance with the 1987 "Corps of Engineers Wetland Delineation Manual" (USACE 1987), Version 2.0 of the Arid West regional supplement (USACE 2008), and "A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States" (Lichvar and McColley 2008).

Land Cover Types

For the purposes of this analysis, land cover types are defined as the dominant character of the land surface as determined by vegetation, water, or human uses. Land cover types and common wildlife associations within the Project area are described below. The Project area, which totals approximately 10 acres, includes the riparian corridor up to the residential fence lines between Miller Avenue and Bollinger Road. The limits of waters of the U.S. and State in the Project area are included in the Aquatic Resources Delineation Report (**Appendix D**).

Calabazas Creek (Intermittent Stream)

Calabazas Creek, an intermittent stream, totals approximately 2.2 acres (up to the ordinary high-water mark) and 4,714 linear feet in the Project area. The Calabazas Creek Watershed is 90% urban and fed by storm drain systems. Historically, Calabazas Creek did not connect to the Bay. Prior to the settlement of the Santa Clara Valley, Calabazas Creek flowed from the Santa Cruz Mountains through oak woodlands and savannahs and terminated in expansive wet meadows that covered the low-lying areas of the valley floor, which ultimately drained to the Bay. Land development upstream and downstream of the Project area have drastically increased the amount of runoff flowing to the creek and simultaneously decreased the sediment supply through the replacement of permeable surfaces with hardscape. Throughout the second half of the 19th century, Calabazas Creek was engineered to extend it past its historical terminus, connecting the creek to the Bay via Guadalupe Slough (San Francisco Estuary Institute 2010 and 2018).

In the reach between Bollinger Road and Miller Avenue (Project area), there is approximately 4 square miles of drainage, which is primarily urban with limited areas in the low-density residential foothills. Regnart Creek, an urban drainage channel, confluences with Calabazas Creek approximately 900 feet upstream of Miller Avenue, adding approximately 2 square miles of urbanized watershed. Regnart Creek is approximately 8 feet higher in elevation than Calabazas Creek, and this change in elevation has resulted in a scour hole in the Calabazas Creek bed.

Stream gauges and field observations on Calabazas Creek indicate that the creek is dry most of the year, except following rain events. On average, the summer months between late April and November have no appreciable flows, with only a small amount of discharge from storm drain systems. In the winter months, substantial flows occur which frequently reach over 100 cubic feet per second (cfs) at 6 feet or greater above grade. However, these flows recede quickly, usually within 24 hours (J. Xu, pers. comm. 2019; Valley Water 2019).

Channel degradation and incision has occurred in the Project area, which is a classic example of an urbanized stream with a starved sediment supply (J. Xu, pers. comm. 2019). Sediment is necessary for the development and resilience of aquatic habitats through the delivery and replenishment of nutrients for aquatic/riparian flora and fauna, as well as to prevent bank erosion. Due to the surrounding urban environment, the sediment load in the waters flowing to Calabazas

Creek is generally low. Furthermore, the high velocity flows in the creek when water is present (commonly referred to as a “flashy” creek), prevents much of the sediment that is available from depositing in the Project area, exacerbating problems associated with low sediment.

Water flow in Calabazas Creek is typically concentrated in a single-thread, relatively low-gradient channel below the ordinary high-water mark elevation. The channel is largely unvegetated with a bed of cobble, gravel, and coarse sand. The surrounding mature riparian tree canopy shades much of the channel and the channel bed is largely unvegetated. Limited areas of in-channel hydrophytic vegetation occur, which are dominated by smartweed (*Polygonum* spp.), but these features are not considered to be wetlands due to the lack of hydric soils (refer to **Appendix D**).

In general, Calabazas Creek in the Project area exhibits poor aquatic habitat. There are areas of existing hardscape within the channel, including locations with existing bank protection (i.e., riprap, grouted riprap, and sacked concrete) and the concrete channel lining at the Bollinger Road and Miller Avenue bridges, each extending approximately 65 feet into the Project area. Regnart Creek flows into Calabazas Creek over a concrete apron and has concrete banks upstream of the apron.

Mixed Riparian Woodland (Coast Live Oak Woodland Alliance)

Mixed riparian woodland habitat in the Project area, which has been classified as coast live oak woodland alliance using the Sawyer and Keeler-Wolf classification system, totals approximately 7.8 acres. Riparian habitat in the Project area is constrained by surrounding residential development and Creekside Park, and is defined by steeply incised banks. There are areas of existing hardscape within this community, including the paved access ramp off Bollinger Road and areas of existing bank protection (i.e., riprap, grouted riprap, and sacked concrete).

The riparian habitat in the Project area is dominated by many remnant and declining heritage-sized coast live oaks (*Quercus agrifolia*) and valley oaks (*Quercus lobata*), with a few large sycamores (*Platanus racemosa*) and blue gum trees (*Eucalyptus* spp.). The understory is sparse and comprised of shrubs including California buckeye (*Aesculus californica*), red elderberry (*Sambucus racemosa*), poison oak (*Toxicodendron diversilobum*), and some red willow (*Salix laevigata*). Non-native species are also present in dense patches including acacia (*Acacia* sp.) and giant reed (*Arundo donax*). There is no native herbaceous understory layer and dominant ground cover is nonnative and includes English ivy (*Hedera helix*), smilo grass (*Piptatherum milieaceum*), and scattered stinkwort (*Dittrichia graveolens*).

Special-Status Species

For the purposes of this analysis, special-status species are defined as follows:

- Species listed or proposed for listing as threatened or endangered under FESA (50 CFR 17.12 [listed plants], 50 CFR 17.11 [listed animals]) and various notices in the Federal Register (FR) (proposed species).
- Species that are candidates for possible future listing as threatened or endangered under FESA (61 FR 40 7596–7613).
- Species listed or proposed for listing as threatened or endangered under CESA (14 CCR Section 670.5).
- Species that meet the definitions of rare or endangered under CEQA (State CEQA Guidelines, Section 15380).
- Plants listed as rare or endangered under the CNPPA (F&G Code Section 1900 et seq.).

- Plants assigned to one of the following California Rare Plant Ranks (CRPR) by the California Native Plant Society (CNPS) and collaborators.
 - 1A – Presumed extirpated in California and either rare or extinct elsewhere.
 - 1B – Rare, threatened, or endangered in California and elsewhere.
 - 2A – Presumed extirpated in California, but more common elsewhere.
 - 2B – Rare, threatened, or endangered in California, but more common elsewhere.
- Animal species, subspecies, or distinct populations designated as SSC by the CDFW, as identified in its “Special Animals List.”
- Animals designated as Fully Protected species in California (F&G Code Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).
- Bat species designated as high or medium priority by the Western Bat Working Group. The Western Bat Working Group is a partner in the Coalition of North American Bat Working Groups.

To identify special-status plant and animal species potentially occurring in the Project area, Valley Water biologists consulted the following sources:

- CDFW. 2020. California Natural Diversity Database (CNDDB). Biogeographic Data Branch, Sacramento, CA. Accessed in May 2020.
- CNPS. 2018. Rare Plant Program: Inventory of Rare and Endangered Plants within the 7.5-minute U.S. Geologic Survey Quadrangles (surrounding nine quadrangles). 7th edition, version 8-03. Accessed in October 2018. Available at: <http://www.rareplants.cnps.org/>
- USFWS. 2019a. List of Federally Endangered and Threatened Species that may Occur in Your Proposed Project Location, and/or may be Affected by Your Proposed Project. Sacramento USFWS. Accessed in March 2019. Available at: <https://ecos.fws.gov/ipac/>.

Special-Status Plants

Based on a review of the above sources and as described in the Biological Site Assessment (**Appendix C**), Valley Water compiled a list of 45 special-status plant species with potential to occur in the region. After an analysis of the documented habitat requirements and occurrence records for each species, 41 species were eliminated based on a lack of suitable habitat in the Project area. The remaining four special-status plant species with potential to occur in the Project area are included in **Table 4-3**. There are no CNDDB occurrences of special-status plants within 2 miles of the Project area.

Loma Prieta hoita (*Hoita strobilina*) and arcuate bush mallow (*Malacothamnus arcuatus*) can be identified outside of the bloom period by an experienced botanist and were not noted in the Project area. Western leatherwood (*Dirca occidentalis*), found in riparian areas, is more difficult to identify outside of its winter bloom period; however, each of the bank rehabilitation sites were carefully surveyed for this species and it was not found. Furthermore, the habitat in this reach of Calabazas Creek is so highly modified and disturbed there is virtually little to no potential for this species to be present in the Project area. There was no suitable habitat for woodland monolopia (*Monolopia gracilens*) in the Project area. No other special-status plants were identified during the survey and special-status plants are considered absent from the Project area.

Table 4-3. Special-Status Plants with Potential to Occur in the Project Area

Common Name Scientific Name	Status¹ Federal/ State/CNPS	General Habitat Description	Present/Absent in Project Area	Rationale
Arcuate bush-mallow <i>Malacothamnus arcuatus</i>	—/—/1B.2	Chaparral and cismontane woodlands	Absent	Not observed in Project area by Qualified Plant Ecologist. Only one recorded occurrence greater than 2 miles upstream of the Project area in the Saratoga foothills.
Loma Prieta hoita <i>Hoita strobilina</i>	—/—/1B.1	Chaparral, cismontane woodlands, and riparian woodlands, usually on serpentine or in mesic areas	Absent	Not observed in Project area by Qualified Plant Ecologist. Only one recorded occurrence greater than 2 miles upstream of the Project area in the Saratoga foothills.
Western leatherwood <i>Dirca occidentalis</i>	—/—/1B.2	Broad-leaved upland forest, closed- cone coniferous forest, chaparral, cismontane woodlands, North Coast coniferous forest, and riparian forest.	Absent	Not observed in Project area by Qualified Plant Ecologist. Only one recorded occurrence approximately 4 miles southwest of the Project area.
Woodland monolopia <i>Monolopia gracilens</i>	—/—/1B.2	On serpentine soils in broad-leaved upland forests (openings), cismontane woodlands, and valley and foothill grasslands	Absent	Qualified Plant Ecologist determined that there is no suitable habitat in the Project area. Only one recorded occurrence greater than 2 miles upstream of the Project area in the Saratoga foothills.

¹ Status explanation:

— = no listing.

CNPS California Rare Plant Rank:

1B = List 1B species: plants rare, threatened, or endangered in California and elsewhere.

CNPS Code Extensions:

0.1 = seriously endangered in California (over 80 percent of occurrences threatened/high degree and immediacy of threat).

0.2 = fairly endangered in California (20-80 percent of occurrences threatened).

Special-Status Fish and Wildlife

Based on a review of the above sources, Valley Water compiled a list of 17 special-status fish and wildlife species with potential to occur in the Project area (**Table 4-4**). Only two of these 17 species have known CNDDDB occurrences within 2 miles of the Project area, as depicted in **Figure 4-2**. Eight species were added to the list based on a query of the USFWS IPaC search, and an additional seven species were included based on Valley Water expertise and their known presence in Santa Clara County. Due to a lack of suitable habitat, only six of the 17 special-status wildlife species have potential to occur in the Project area.

The only species known to be present in the Project area is the San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*), as woodrat nests were observed in the Project area. While two special-status birds including yellow warbler (*Setophaga petechia*) and yellow-breasted chat (*Icteria virens*) could occur in the Project area as foragers, these species are not expected to breed in the Project area due to a lack of suitable nesting habitat. These birds are only considered Species of Special Concern when nesting, and therefore impacts to these species are not evaluated further. Similarly, three special-status bats could be present in the Project area: western red bat (*Lasiurus blossevillei*), Townsend's big-eared bat (*Corynorhinus townsendii*), and pallid bat (*Antrozous pallidus*). Western red bat is a migratory species that is not known to raise young in Santa Clara County (Johnston; D. S., and S. Whitford. 2009). The species overwinters in the county generally from November to February (Johnston, D. S., and S. Whitford. 2009; Cryan, P. M., 2003), outside the work period. In general, this species is not found in the central coast in summer, but low numbers of this species (presumably males and mostly itinerant migrants) have been detected in late spring and summer (J. Watson, pers. Comm. 2020) so it is possible but unlikely for the species to be present (including roosting in foliage and foraging) when the work is occurring. Roosting habitat for Townsend's big-eared bat and pallid bat is absent but these species could forage in the Project area at night. Given Townsend's big-eared bat and pallid bat would not be present during work, which would be restricted to daylight hours, impacts to these species are not evaluated further.

The Biological Site Assessment (**Appendix C**) details the rationale for determining that California red-legged frogs (*Rana draytonii*) and western pond turtles (*Emys marmorata*) would not occur in the Project area. California red-legged frog was excluded due to the short hydroperiod required for frog breeding (3.5 to 7 months), the highly episodic nature of the creek flows, absence of pools with appropriate depths, absence of emergent vegetation combined with long and shallow runs, lack of upland refugia and suitable aquatic habitat, steep channel banks, and the long distances to the nearest known red-legged frog occurrences. Western pond turtle was excluded for similar reasons, largely based on the highly episodic nature of the creek flows, as well as the absence of upland refugia.

Figure 4-1. CNDDDB Fish and Wildlife Occurrences within 2 Miles of Project Area

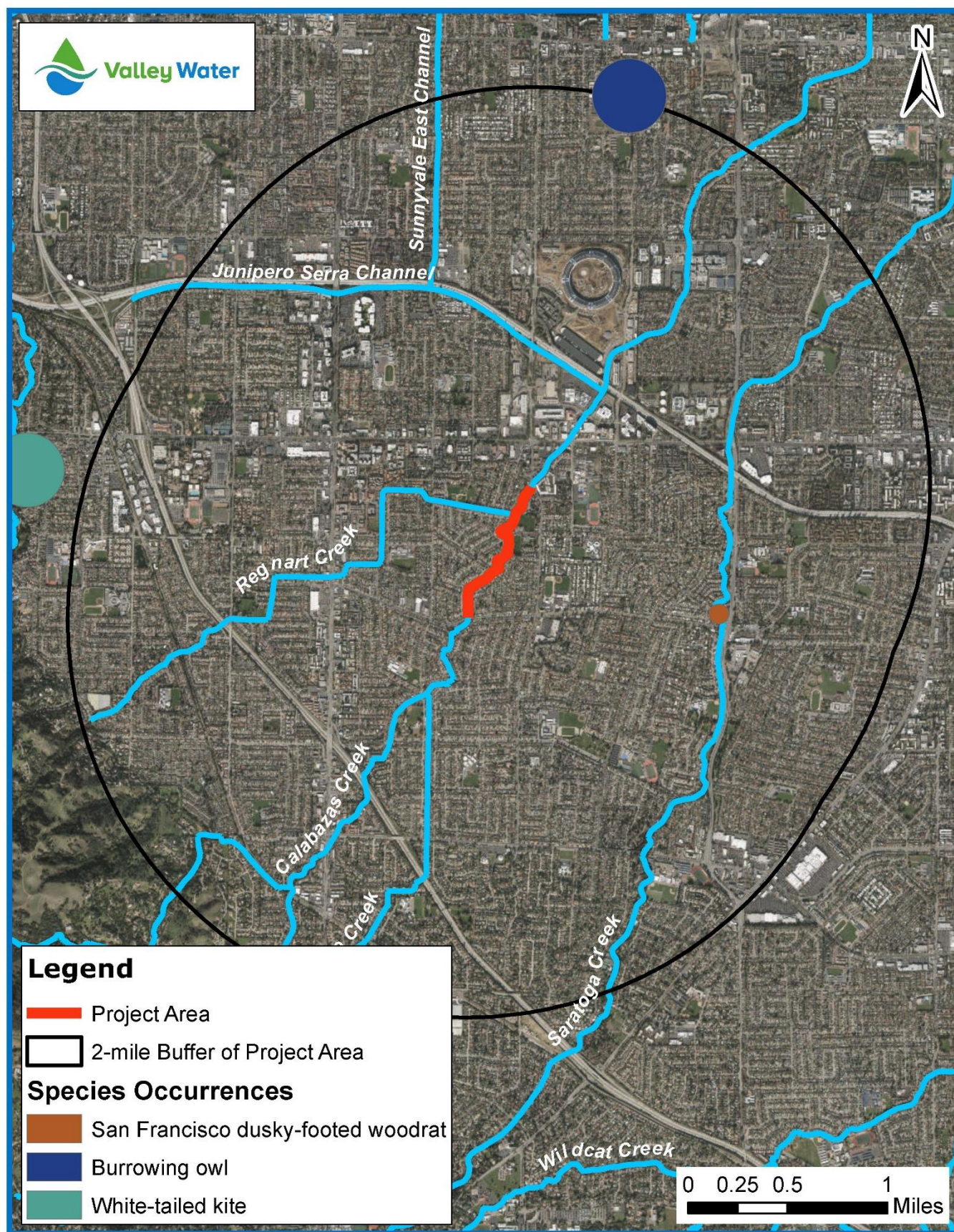


Table 4-4. Special-Status Animal Species with Potential to Occur in the Project Area

Common Name Scientific Name	Status ¹ Federal/ State/ Other	General Habitat Description	Habitat Present/ Absent	Potential for Occurrence in Project Area
Invertebrates				
Bay checkerspot butterfly <i>Euphydryas editha bayensis</i>	FT/–/–	Open grasslands with serpentine soil outcrops and host plants. Serpentine plants (<i>Plantago erecta</i> and/or <i>Castilleja exserta</i> or <i>C. densiflora</i>) serve as larval host plants.	Absent	None. Species inhabits serpentine grasslands that are not present in or immediately adjacent to the Project area. The Project does not intersect any of the populations or “habitat units” that are well known and monitored within the county (ICF 2012).
San Bruno elfin butterfly <i>Callophrys mossii bayensis</i>	FE/–/–	Rocky outcrops and cliffs in coastal scrub habitat within the fog belt on steep north-facing slopes with low sunlight. Broadleaf stonecrop (<i>Sedum spathulifolium</i>) serves as the larval host plant	Absent	None. Species is restricted to San Mateo County (USFWS 2019b).
Fish				
Delta smelt <i>Hypomesus transpacificus</i>	FT/SE/–	Open water bays and tidal river channels and sloughs with various degrees of salinity. Typically spawn in freshwater sloughs and shallow edge waters.	Absent	None. Outside of the species’ known range (CDFW 2019a; USFWS 2017).
Amphibians				
California red-legged frog <i>Rana draytonii</i>	FT/–/SSC	Aquatic breeding areas adjacent to upland dispersal habitats with suitable microhabitat (rodent burrows, crevices, fallen logs, etc.) for cover. Breeding sites include pools and backwaters within streams, ponds, and marshes with both open water and emergent vegetation.	Absent	None. The lack of suitable microhabitat, freshwater breeding areas, pools, and upland refugia in Project area precludes presence of the species. Episodic flows are not suitable for the species. The nearest CNDDB occurrence is over 3.6 overland miles to the Project area, or 4.8 miles upstream.
California tiger salamander <i>Ambystoma californiense</i>	FT/ST/–	Live mostly underground in small mammal burrows, emerging in the rainy season to breed. Restricted to vernal pools and temporary freshwater ponds for breeding in grassland, oak savannah, or edges of mixed woodland habitat containing well-maintained burrows.	Absent	None. There is no suitable aquatic (temporary/permanent freshwater pools) or upland (grasslands with rodent burrows) habitat in the Project area. The species is not known to occupy riparian areas. The surrounding area is highly developed. The nearest CNDDB occurrence is over 2 miles from the Project area.

Common Name Scientific Name	Status ¹ Federal/ State/ Other	General Habitat Description	Habitat Present/ Absent	Potential for Occurrence in Project Area
Reptiles				
Western pond turtle <i>Emys marmorata</i>	–/–/SSC	Permanent to nearly permanent freshwater ponds, lakes, rivers, creeks, wetlands, and marshes with suitable basking habitat and aquatic vegetation in woodland, forest, or grassland habitats. Prefer slow-moving water with deep pools and woody debris, rocks, vegetation mats, or exposed banks for basking. Use terrestrial upland sites for refuge during droughts, floods, and for nesting.	Absent	None. The lack of suitable aquatic and upland habitat in Project area precludes presence of the species. Episodic flows are not suitable for the species. The nearest CNDDB occurrence is over 5 overland miles from the Project area.
Birds				
Burrowing owl <i>Athene cunicularia</i>	–/–/SSC	Nest and roost in open grasslands with short vegetation and ruderal habitats with unobstructed views, suitable foraging habitat, and burrows, typically those made by California ground squirrels. Forage over grasslands for invertebrates and small vertebrates such as lizards, birds, or mammals such as mice, voles, and shrews.	Absent	None. The Project area lacks open grasslands with suitable burrows for nest sites.
California least tern <i>Sternula antillarum browni</i>	FE/SE/FP	Coastal areas, beaches, bays, estuaries, lagoons, lakes, and rivers. Nest in scrapes on sandy or gravel areas lacking vegetation near water. Forage for fish over water.	Absent	None. Project area is outside of the species known range (CDFW 2014; USFWS 2013).
California Ridgway's rail <i>Rallus obsoletus obsoletus</i>	FE/SE/FP	Salt marshes, tidal and brackish marshes, and wetland areas with tidal sloughs and access to mudflats or shallow waters with abundant invertebrates for foraging, and adjacent to high marsh for refugia during high tides. Occur in cordgrass-pickleweed dominant habitats, often with gumplant and saltgrass. Nest in the lower areas of marshes in dense vegetation such as cordgrass, pickleweed, and gumplant.	Absent	None. Project area is outside of the species known range (CDFW 2014; USFWS 2013).
Marbled murrelet <i>Brachyramphus marmoratus</i>			Absent	None. Project area is outside of the species known range (USFWS 1997).

Common Name Scientific Name	Status ¹ Federal/ State/ Other	General Habitat Description	Habitat Present/ Absent	Potential for Occurrence in Project Area
White-tailed kite <i>Elanus leucurus</i>	–/–/FP	Coastal and valley lowlands. Forage in open grasslands, meadows, agricultural, and marsh habitats with abundant small mammal prey. Nest high in isolated trees such as sycamore, willow, oak, eucalyptus, or walnut (3-50 m tall) or forest edges near foraging habitat.	Absent	None. The species is fairly common in the County (Bousman 2016). Nest site selection is in or adjacent to open areas which provide the microhabitat needed for foraging. The Project area is surrounded by a built out residential development that has encroached on the riparian corridor. Adjacent open areas, which could provide foraging habitat are absent; therefore, suitable nesting habitat is absent within the Project area due to the lack of suitable adjacent foraging habitat.
Yellow warbler <i>Setophaga petechia</i>	–/–/SSC	Nest in multi-story riparian habitats with dense understories.	Present (foraging), Absent (nesting)	Low. This species is considered to be an uncommon summer resident in the County (Bousman 2016). The species has been documented nesting along riparian corridors, often with a mature overstory of cottonwoods and sycamores, a mid-story of willow and box elder, and a substantial shrub understory of vines, blackberries, and forbs (Bousman 2007). Due to the lack of riparian habitat complexity (mid-story and dense understory is absent), suitable nesting habitat is absent within the Project area. The species may forage in the Project area.
Yellow-breasted chat <i>Icteria virens</i>	–/–/SSC	Nest in riparian and open habitats with dense understories.	Present (foraging), Absent (nesting)	Low. This species is considered to be very rare in the County (Bousman 2016) and is only found breeding in scattered riparian locations in the Diablo Range in southern portions of the County (Bousman 2007). The species utilizes a variety of nesting habitats (multi-overstory, no overstory, etc.), all of which have a dense understory. Due to the lack of a dense understory, suitable nesting habitat is absent within the Project area. The species may forage in the Project area.
Mammals				
Pallid bat <i>Antrozous pallidus</i>	–/–/SSC	Forest habitats with access to trees for cover and open areas or habitat edges for feeding. Typically associated with coniferous forests. Hang singly in tree foliage by day; usually 7-20' above ground in tree with leafed canopy above and open below. Roosts in a variety of structures including rock cracks and crevices, caves, buildings, bridges, and tree cavities (Baker et al. 2008, Hermanson & O'Shea 1983, O'Shea and Vaughan 1977).	Present (foraging), Absent (roosting)	Low. Structures in or immediately adjacent to the Project area that could be considered suitable roosting locations for the species are absent. They may forage in riparian woodlands at night outside work hours. There are no records of the species within 5 miles of the Project area.

Common Name Scientific Name	Status ¹ Federal/ State/ Other	General Habitat Description	Habitat Present/ Absent	Potential for Occurrence in Project Area
San Francisco dusky-footed woodrat <i>Neotoma fuscipes annectens</i>	–/–/SSC	Riparian and woodland habitats.	Present	Present. Woodrat nests occur throughout the Project area and woodrats are assumed to be present.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	–/–/SSC	Roosts in caves, mines, tunnels, buildings, or other human-made structures.	Present (foraging), Absent (roosting)	Low. This is a cave-dwelling species, but is also known to use old, mostly abandoned buildings with darkened and enclosed cave-like attics in addition to other anthropogenic structures (Barbour and Davis 1969). There are no structures in or immediately adjacent to the Project area that could be considered suitable roosting locations for the species. They may forage in riparian woodlands at night when work is not occurring. There are no records of the species within 5 miles of the Project area.
Western red bat <i>Lasiurus blossevillei</i>	–/–/SSC	Forages in riparian woodland habitats, forest-edge, orchards and agricultural lands, and around urban/residential areas. Generally, roosts independently in tree and shrub foliage. Tend to be associated with mature trees.	Present (foraging/roosting),	Low. Migratory species that is not known to raise young in Santa Clara County (Johnston; D. S., and S. Whitford. 2009). Overwinters in the county generally from November to February (Johnston, D. S., and S. Whitford. 2009; Cryan, P. M., 2003), outside the work period. In general, this species is not found in the central coast in summer, but low numbers of this species (presumably males and mostly itinerant migrants) have been detected in late spring and summer (J. Watson, pers. Comm. 2020) so it is possible but unlikely for the species to be present when the work is occurring.

Notes:

¹ Status Codes

–	no listing.
FE	listed as endangered under FESA.
FT	listed as threatened under FESA.
SE	listed as endangered under CESA.
ST	listed as threatened under CESA.
SSC	listed as a Species of Special Concern by the State of California.
FP	California fully protected species.

Wildlife Movement

Wildlife movement corridors, often termed “habitat linkages” or simply “corridors” refer to any space (usually linear in shape) that improves the ability of organisms to move among patches of their habitat (Hilty et al. 2006). Often, corridors describe areas that wildlife use to move between habitat patches that have been separated or fragmented by topography, changes in vegetation, or other natural or human disturbances or land use changes such as roads that wildlife cannot or prefer not to cross. The fragmentation of natural habitat creates isolated “islands” of vegetation that may not provide sufficient area or resources to accommodate sustainable populations for a number of species, thus adversely affecting both genetic and species diversity.

Wildlife corridors somewhat mitigate the adverse effects of habitat fragmentation by (1) allowing animals to move between remaining habitat patches to replenish depleted populations and increase the available gene pool; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fire or disease) will result in population or species extinction; and (3) serving as travel paths for individual animals moving throughout their home range in search of food, water, mates, and other needs, such as dispersing juveniles in search of new home ranges.

While Calabazas Creek originates in the Santa Cruz Mountains, which is considered a significant habitat area, the Project reach does not form a corridor to other substantial habitat areas. Once Calabazas Creek reaches the valley floor, it is surrounded by urban and residential development until it terminates at its confluence with the Guadalupe Slough on the San Francisco Bay, approximately 8 miles downstream of the Project area. Calabazas Creek is largely channelized, lined with concrete for substantial portions of its length, and crosses through numerous culverts. Calabazas Creek is not inhabited by anadromous (migratory) fish species and is an intermittent creek, typically dry in the summer months. The highly episodic flows in Calabazas Creek render the corridor less suitable for aquatic wildlife movement.

Migration is the seasonal or periodic movement of individuals from one area to another, typically over long distances. Migration typically occurs in response to seasonal changes in abundance or distribution of food sources or available breeding habitat. Numerous migratory songbirds and raptors are routinely present within the Project area. Migratory birds and raptors could use the Project area and the remainder of the Calabazas Creek riparian corridor to move between habitats along the Bay up into the Santa Cruz Mountains to the west, or between riparian corridors on the valley floor. However, many bird species have adapted to development and may equally move through residential and commercial areas along their migratory pathway. Outside the breeding season, the Project area may provide foraging opportunities for migratory birds.

Discussion

- a) Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?**

Following a review of existing data sources and field surveys, Valley Water biologists determined that two special-status species could be adversely affected by the Project:

- San Francisco dusky-footed woodrat
- Western red bat

San Francisco Dusky-Footed Woodrat

The San Francisco dusky-footed woodrat (SSC) is present in the Project area, as woodrat nests (also referred to as lodges) were observed during biological surveys. As described under item b) below, placement of riprap along creek banks and installation of sheet pile walls would permanently impact approximately 0.08 acre of riparian habitat. However, nearly all of these impacts would be associated with reconstructing banks with riprap that would be buried under a layer of soil and revegetated. While placement of riprap, even buried under a layer of soil, would be considered a permanent impact to riparian habitat, woodrats would still be able to forage and nest in the area post-construction. Therefore, the placement of riprap would not result in loss of woodrat habitat in the Project area; in fact, woodrats would likely benefit from additional habitat area, as some near vertical banks would be recontoured to gentler slopes that are more suitable for woodrat use. Nevertheless, nesting woodrats could be disturbed or injured during bank rehabilitation work and equipment access. Disturbance or mortality of woodrats would be considered a significant impact. **Mitigation Measure (MM-) BIO-1 and MM-BIO-2** are proposed to address this impact.

MM-BIO-1: Environmental Awareness Training

Prior to the start of construction, a qualified biologist shall conduct an Environmental Awareness Training for all construction workers. The Environmental Awareness Training shall include the following information:

1. A review of the Project boundaries;
2. Special-status species that may be present, their habitat, and proper identification;
3. Mitigation measures and BMPs that must be followed;
4. The general provisions and protections afforded by the Project's permit conditions; and
5. The proper procedures if a special-status species is encountered within the Project area.

An instructional pamphlet shall be included with the Environmental Awareness Training and additional copies will be left for construction personnel that join the Project after the training has been conducted. At the completion of the Environmental Awareness Training the qualified biologist will designate on-site personnel (generally the construction crew manager) who will ensure that new construction members receive and review the pamphlet information. The environmental training designee shall also be the primary point of contact in the event that special-status species are found in the Project area and the presence of the qualified biologist is required.

MM-BIO-2: Conduct Surveys for San Francisco Dusky-Footed Woodrat and Protect Nests

Prior to the start of construction activities, a qualified biologist will conduct preconstruction surveys for woodrat nests. Surveys will take place no more than 48 hours prior to the onset of site preparation and construction activities with the potential to disturb woodrats or their habitat. All nests shall be identified and their locations mapped and flagged to be avoided during construction activities.

If woodrat nests are found that could be disturbed by construction activities, the qualified biologist will install a 5-foot no work buffer around the lodges. If woodrat lodges cannot be avoided by construction activities, the qualified biologist will dismantle the lodge and relocate the lodge materials (i.e., sticks and logs) to the closest location possible that is

outside of the construction work area. Any woodrat lodge relocations would be performed after consulting with CDFW.

MM-BIO-1 requires all construction workers receive an environmental awareness training, including review of special-status species that could be present (including woodrats), to ensure workers do not inadvertently impact the species and correctly implement avoidance and minimization measures (including permit conditions). **MM-BIO-2** requires surveys for woodrat nests, implementing 5-foot no-work buffers around woodrat nests, and if avoidance is not possible, passive dismantling and relocation of woodrat nest materials to the closest location outside of the work area as possible. Implementation of this measure will ensure there will be no direct harm to nesting woodrats. Therefore, implementation of **MM-BIO-1** and **MM-BIO-2** would reduce the impacts on woodrats to a **less than significant** level. Furthermore, while not intended to address impacts to woodrats, **MM-BIO-4** (described below) is proposed to restore or enhance riparian habitat and would result in long-term benefits to woodrat nesting habitat.

Western Red Bat

While Santa Clara County is not known to support maternity roosts for western red bats, low numbers of this species (presumed to be itinerant migrating males) could be found roosting in foliage or foraging in the Project area during the spring and summer when work is occurring. Western red bat is typically a solitary foliage roosting species (i.e., not a colonial roosting species) and tend to have low roost site fidelity; therefore, due to the seasonality of the work and ecology of the species, impacts to maternity and/or colonial roost sites are unlikely and this impact would be less than significant. However, solitary roosting western red bats could be impacted by work activities such as vegetation removal and operation of heavy equipment, which could result in direct mortality or injury to bats through crushing by equipment or falling vegetation. Impacts on roosting western red bats are considered significant. **MM-BIO-3** is proposed to address this significant impact.

MM-BIO-3: Implement Western Red Bat Avoidance Measures and Protect Roosts

Prior to the start of construction activities, a qualified biologist will conduct preconstruction surveys for western red bats. Surveys will take place no more than 48 hours prior to the onset of site preparation and construction activities with the potential to disturb bats or their habitat and will include close inspection of potential bat roosts, such as trees and any foliage in the Project area. If bat(s) are found roosting, an appropriate buffer will be established as determined by the qualified biologist. Work will not occur within the buffer until the bat(s) are determined to be absent from the area.

MM-BIO-3 requires pre-construction surveys for roosting bats and establishment of no-work buffers if bats are found, thereby ensuring significant impacts to roosting bats do not occur. Therefore, implementation of **MM-BIO-3** would reduce the impacts on western red bat to a **less than significant** level.

Migratory Birds (including special-status species)

The Project area supports nesting habitat for a variety of migratory birds and raptors protected under the MBTA and F&G code. Heavy equipment and human activity during construction would increase noise in the vicinity of the work area, potentially resulting in disturbance of birds nesting and foraging in the area. If occupied nests are present on or adjacent to the construction area, construction activities could result in the abandonment of nests, the death

of nestlings, and/or the destruction of eggs in active nests. It is worth noting that Valley Water biologists identified a Cooper's hawk nest in a large eucalyptus tree at Site 5 (tree not impacted by the Project); the nest was identified through observation of a male Cooper's hawk delivering prey to the nest during the nesting season in March 2019.

Migratory birds including raptors, and their nests are protected under the MBTA and the California F&G Code. However, as described in BMP BI-2 (*Avoid Impacts to Nesting Migratory Birds*), when work is scheduled to occur during the nesting bird season, a focused survey for active nests would be conducted by a qualified biologist prior to the beginning of construction at each work site. If an active nest is discovered, the qualified biologist shall install an appropriate no-work buffer around the nest. The buffer would remain in place until the nest is determined inactive by the qualified biologist. If a lapse in Project-related work of 7 days or longer occurs, another survey would be conducted. While birds may avoid the Project area during construction, with implementation of BMP BI-2, construction is not expected to result in take of birds. Construction impacts to nesting migratory birds and raptors would be **less than significant**, as the Project would avoid disturbance of active nests. No mitigation is required.

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

The Project would result in permanent and temporary impacts on intermittent stream (Calabazas Creek up to the OHWM) and riparian habitat (Coast Live Oak Woodland Alliance), as summarized in **Table 4-5**.

Table 4-5. Impacts on Sensitive Natural Communities

Site	Intermittent Stream		Riparian Habitat	
	Permanent (ft ²)	Temporary ^a (ft ²)	Permanent (ft ²)	Temporary (ft ²)
1	-	-	176	- ^b
2	278	363	51	44
3	156	-	74	-
4	323	-	-	-
5	-	-	331	340
6	-	-	1,522	166
7	-	-	976	534
8	-	-	453	2,197
9	-	-	-	8,539
10	-	-	-	3,937
Total	757 ft² (0.02 acre)	363 ft² (0.01 acre)	3,583 ft² (0.08 acre)	15,757 ft² (0.36 acre)

^a Temporary impacts on the stream channel do not include impacts from dewatering and equipment access, which total approximately 2.20 acres. The stream channel would be restored to pre-Project contours and conditions at the conclusion of work.

^b The Project would replace 399 square feet of existing grouted riprap, but this is not counted as part of the impact total.

The Project would result in approximately 0.02 acre of fill in Calabazas Creek from placement of riprap along the channel toe. However, at Sites 9 and 10, the total area available for channel movement and migration would eventually expand as the soils in front of the sheet pile walls naturally erode. This would likely result in a net increase in the total area of intermittent stream in the Project area, and the wider channel area at Sites 9 and 10 may be capable of supporting additional in-channel vegetation, thereby enhancing the creek in this area. Temporary impacts to Calabazas Creek would occur from the temporary placement of fill during ground disturbing activities, movement of equipment through the channel, and dewatering of the channel during construction. Temporarily impacted portions of Calabazas Creek below the OHWM would be restored to pre-Project contours and conditions at the completion of work.

The Project would also result in permanent impacts to approximately 0.08 acre of riparian habitat from the placement of riprap along creek banks and installation of sheet pile walls. Temporarily impacted areas would be revegetated with native species, thereby restoring the habitat to pre-Project conditions or better. Generally, the riparian habitat presently exhibits characteristics of human influence including a constrained corridor from surrounding development, steep and eroding banks, existing hardscape (i.e., riprap, sacked concrete, and concrete) in several locations, and portions of the habitat dominated by non-native and invasive species (i.e., acacia, tree of heaven, giant reed, and English ivy, among others). An estimated 32 trees would be removed from the riparian habitat to facilitate bank rehabilitation work at Sites 6 through 10, though no trees would be removed at Sites 1 through 5. Of the 32 riparian trees being removed, 18 are native (primarily coast live oak and valley oak), 10 are non-native, and four are invasive. Furthermore, as part of the Project, the existing sewer line

crossing and log revetment abutment that supports the sewer line at Site 9 would be removed and the bank would be restored to natural contours and conditions. Removal of the sewer line and abutment would benefit the stream and riparian habitat by removing hardscape from the habitat, while also removing a utility line that has been prone to leaking/spills. Nevertheless, permanent loss of riparian habitat from the installation of hardscape would be considered a significant impact. **MM-BIO-4** is proposed to address this impact.

MM-BIO-4: Restore and/or Enhance Riparian Habitat

Valley Water will restore and/or enhance any permanently impacted riparian habitat at a mitigation-to-impact ratio of 2:1 and restore temporarily affected habitat at a minimum impact-to-mitigation ratio of 1:1 to ensure no net loss of riparian habitat functions and services. Valley Water will develop and implement a Habitat Mitigation and Monitoring Plan (HMMP) for impacts to riparian habitat that details the mitigation actions necessary to ensure the mitigation ratios are being met and there is no net loss of riparian functions and services. The HMMP may identify a suite of on-site mitigation actions to ensure the impact is fully mitigated. If appropriate, the trees or vegetation planted as part of the Project's restoration may be used to offset the amount of mitigation required under this mitigation measure.

The HMMP will include success criteria as specified by the permitting agencies. The HMMP will also include adaptive management guidelines for actions to be taken if the success criteria are not met. Monitoring will assess progress of the restoration and/or enhancement actions according to the success criteria. If progress is not satisfactory, adaptive management actions (including replanting, nonnative species removal, etc.) could be implemented. The HMMP will remain in force until the success criteria are met.

MM-BIO-4 would require restoration and/or enhancement of riparian habitats in the Project area at a 2:1 mitigation-to-impact ratio to compensate for the Project impacts. Restoration or enhancement actions to compensate for impacts on riparian habitat may include planting of native riparian trees and understory vegetation or removal of non-native or invasive species. With implementation of **MM-BIO-4**, the Project would result in a **less than significant** impact on sensitive natural communities.

c) Would the Project have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

As described in the Aquatic Resources Delineation Report (**Appendix D**), Calabazas Creek in the Project area supports 2.2 acres and 4,714 linear feet of intermittent streambed/open water. Calabazas Creek in the Project reach is single-thread stream that only conveys flow episodically and is mostly unvegetated. The Aquatic Resources Delineation Report did not identify any in-stream or off-channel State or federally protected wetlands. Wetlands are also absent from adjacent reaches of Calabazas Creek. Therefore, there would not be a substantial adverse effect on wetlands protected under Section 404 of the CWA or the Porter-Cologne Water Quality Control Act. **No impact** would occur.

d) Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Although Calabazas Creek originates in the Santa Cruz Mountains, which is considered a significant habitat area, the Project reach does not connect this habitat to other substantial

habitat areas. Once Calabazas Creek reaches the valley floor, it is surrounded by urban and residential development until it terminates at its confluence with Guadalupe Slough on the San Francisco Bay, approximately 8 miles downstream of the Project area. Calabazas Creek is largely channelized, lined with concrete for substantial portions of its length, and crosses through numerous culverts. Calabazas Creek is not inhabited by anadromous (migratory) fish species and is an intermittent creek, typically dry in the summer months when work would occur. Thus, impacts to migratory wildlife, anadromous fish, or resident fish are not expected to occur. Resident wildlife may avoid Project areas with temporarily high human activity and noise, but as soon as the bank rehabilitation work is completed, wildlife movement in the Project area will return to its pre-Project condition. Therefore, impacts to habitat connectivity and wildlife movement would be **less than significant**.

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

The City of Cupertino Municipal Code Chapter 14.18, Protected Trees Ordinance, provides regulations for the protection, preservation, and maintenance of trees of certain species and sizes. The Project proposes the removal of 32 trees, including 9 trees classified as mature specimen trees in the Protected Trees Ordinance, as summarized in **Table 4-6**. All protected trees removed are coast live oaks. No heritage trees would be removed. Protected trees not identified for removal could also be damaged by construction equipment or be at risk of mortality through root pruning, if done improperly or in excess of the amount the tree could withstand. Although Valley Water is not subject to local tree regulations as explained in the *Regulatory Setting* above, it will voluntarily comply with applicable provisions in the City's tree ordinance as though it did apply, including obtaining a permit before tree removal and complying with the permit conditions (see MM-BIO-05).

Table 4-6. Protected Coast Live Oak Trees to be Removed by the Project

DBH (inches)	Number of Removed Trees
>12 – 18	3
>18 - 24	1
>24 – 30	4 ¹
>30	1 ¹
	9

¹ Consistent with Tree Removal Permit application requirements in the Protected Trees Ordinance, Valley Water or its contractor will specify the precise DBH of any tree over 24 inches DBH and provide a photograph of the tree in an arborist report from a certified arborist.

Removal of or damage to trees protected under the City's Protected Trees Ordinance that would conflict with the ordinance would be considered a significant impact under CEQA. MM-BIO-5 is proposed to address the impact on protected trees; it requires implementation of measures to minimize harm to trees that have not been identified to be removed and compliance with the City's Protected Trees Ordinance for trees that are proposed to be removed. Voluntary Compliance with the City's Protected Tree Ordinance would include obtaining a tree removal permit which requires replacement of protected trees in the amounts specified in the Ordinance. And if replacement on the project site is not feasible, as may be the case for this Project, the applicant may pay in-lieu fees to the City's Tree Fund at the

amounts determined by the City. **MM-BIO-5** is proposed to address the impact on protected trees, which is consistent with the City's tree ordinance.

MM-BIO-5: Protection and Replacement of Protected Trees

The Project shall voluntarily comply with the applicable provisions of the City of Cupertino's Protected Trees Ordinance (Cupertino Municipal Code Section 14.18). A tree removal permit shall be obtained for the removal of any "protected tree," and replacement plantings shall be provided as approved by the City. If permitted, an appropriate in-lieu tree replacement fee may be paid to the City of Cupertino's Tree Fund as compensation for "protected trees" removed by the Project, where sufficient land area is not available on-site for adequate replacement and when approved by the City.

In addition, Valley Water or its contractor shall retain a Certified Arborist to oversee construction and ensure the following measures are implemented to prevent harm to protected trees not identified for removal. A Certified Arborist is an individual certified by the International Society of Arboriculture.

- Adequate measures shall be defined to protect all trees to be preserved. These measures shall include the establishment of a tree protection zone (TPZ) around protected trees to be preserved that could be impacted by Project construction. No disturbance is permitted within the TPZ unless approved by the Certified Arborist. The TPZ shall be located at the dripline of the tree or 10 feet, whichever is greater. If necessary, the TPZ for construction-tolerant species (i.e., coast live oaks) may be reduced to 7 feet.
- Where feasible, temporary construction fencing shall be installed at the perimeter of TPZs prior to grubbing or grading. Fences shall remain until all construction is completed. Fences shall not be relocated or removed without permission from the Certified Arborist.
- No grading, excavation, or storage of materials shall be permitted within TPZs.
- Where encroachment cannot be avoided, special construction techniques such as hand digging under roots shall be employed where necessary to minimize root injury. Work within the TPZ shall use the smallest equipment and operate from outside the TPZ. The Certified Arborist shall be on-site during all operations within the TPZ to monitor the activity.
- Any root pruning for trees to be preserved shall receive the prior approval of and be supervised by the Certified Arborist to ensure the long-term health of the tree. Roots shall be cut by manually digging a trench and cutting exposed roots with a sharp saw.
- All grading and construction plans shall clearly indicate trees proposed to be removed or otherwise affected by construction. The tree information in the construction plans should indicate the number, size, species, and assigned tree number of all trees that are to be retained/preserved.
- The contractor shall meet with the Certified Arborist before beginning work to discuss work procedures and tree protection.
- Trees to be preserved may require pruning to provide access and construction clearance. All pruning shall be completed by a State of California Licensed Tree Contractor and under the direction of a Certified Arborist in accordance with the 2002 BMPs for Pruning published by the International Society of Arboriculture, and

adhere to the most recent editions of the American National Standard for Tree Care Operations (Section Z133.1) and Pruning (Section A300).

- In the unlikely event any protected tree not identified for removal is damaged in a manner that could result in tree mortality (as determined by a Certified Arborist), the damage would be reported to the City of Cupertino and mitigation consistent with the Protected Trees Ordinance would be obtained.

Under **MM-BIO-5**, Valley Water will coordinate with the City to determine the tree replacement requirements, or pay the required in-lieu tree replacement fee to the City's Tree Fund prior to the start of construction. Valley Water will also ensure protected trees not identified for removal in the tree removal permits are not harmed by establishing no-work buffer zones and relying on a Certified Arborist to direct work (when appropriate) to minimize impacts. Therefore, with implementation of **MM-BIO-5**, impacts on protected trees would be reduced to a **less than significant** level.

f) Would the Project conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or State HCP?

There are no adopted HCPs or NCCPs covering the Project area. Therefore, the Project would not conflict with any adopted HCPs and there would be **no impact**.

Cultural Resources

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Regulatory Setting

Federal

Section 106 of the National Historic Preservation Act

Federal regulations for cultural resources are primarily governed by Section 106 of the National Historic Preservation Act (NHPA) of 1966, which applies to actions taken by federal agencies. The goal of the Section 106 review process is to offer a measure of protection to sites that are determined eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and affords the Federal Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings.

The Section 106 review process consists of four steps.

1. Initiate the Section 106 process by establishing the undertaking, developing a plan for public involvement, and identifying other consulting parties.
2. Identify historic properties (resources that are eligible for inclusion in the NRHP) by determining the scope of efforts, identifying cultural resources in the area potentially affected by the project, and evaluating resources' eligibility for NRHP inclusion.
3. Assess adverse effects by applying the Section 106 criteria of adverse effect to identified historic properties.
4. Resolve adverse effects by consulting with the State Historic Preservation Officer (SHPO) and other consulting agencies, including the ACHP if necessary, to develop an agreement that addresses the treatment of historic properties.

The Section 106 review for this Project is anticipated to be initiated by the USACE through the CWA Section 404 permit process. USACE would consult with the SHPO in order to determine and potentially resolve adverse effects on historic properties, if any.

National Register of Historic Places

The NRHP is the nation's master inventory of known historic resources. It is administered by the National Park Service (NPS) in conjunction with the SHPO. The NRHP includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level. The NRHP criteria and associated definitions are outlined in National Register Bulletin 15, *How to Apply the National*

Register Criteria for Evaluation (U.S. Department of the Interior, National Park Service 1995). Resources (structures, sites, buildings, districts, and objects) more than 50 years of age can be listed in the NRHP provided they meet the evaluative criteria described below. However, properties less than 50 years of age that are of exceptional importance or are contributors to a district, and that also meet the evaluative criteria, can be included in the NRHP as well.

The NRHP includes four criteria under which a structure, site, building, district, or object can be considered significant for listing in the NRHP.

1. Resources associated with events that have made a significant contribution to the broad patterns of history.
2. Resources associated with the lives of persons significant in our past.
3. Resources that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.
4. Resources that have yielded or may likely yield information important in prehistory or history.

When evaluating a resource for potential eligibility for inclusion in the NRHP, one must evaluate and clearly state the significance of that resource to American history, architecture, archaeology, engineering, or culture. A resource can be individually significant if it meets any of the above-stated criteria; only one criterion needs to be met for the eligibility of the resource to be considered.

A resource may be considered eligible for listing on the NRHP if it meets one or more of the above-stated criteria for significance and possesses integrity. Historic properties must retain their integrity to convey their significance. The NRHP recognizes seven aspects or qualities, listed below, that define integrity including location, design, setting, materials, workmanship, feeling, and association. To retain historic integrity, a resource should possess several of the seven aspects. The retention of specific aspects of integrity is essential for a resource to convey its significance.

Resources that meet the criteria and have been determined eligible for the NRHP are protected under Section 106 of the NHPA when a proposed undertaking uses federal funds or requires a federal permit, license, or approval.

State

California Environmental Quality Act

CEQA uses the term *historical resources* to include buildings, sites, structures, objects, or districts, each of which may have historical, pre-historical, architectural, archaeological, cultural, or scientific importance. CEQA states that if implementation of a project would result in significant effects on historical resources, then alternative plans or mitigation measures must be considered; however, only significant historical resources need to be addressed (14 CCR Sections 15064.5 and 15126.4). Therefore, before impacts and mitigation measures can be identified, the significance of historical resources must be determined.

The State CEQA Guidelines define three ways that a property may qualify as a historical resource for the purposes of CEQA review.

1. The resource is listed in or determined eligible for listing in the California Register of Historic Resources (CRHR). Resources determined eligible for listing in the NRHP, established under the NHPA, are automatically considered eligible to the CRHR.

2. The resource is included in a local register of historical resources, as defined in PRC Section 5020.1[k] or identified as significant in a historical resource survey meeting the requirements of Section 5024.1[g] of the PRC, unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. The Lead Agency determines the resource to be significant, as supported by substantial evidence in light of the whole record (14 CCR Division 6, Chapter 3, Section 15064.5[a]).

Under CEQA, a substantial adverse change in the significance of a resource means the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be materially impaired. Actions that would materially impair the significance of a historical resource are any actions that would demolish or adversely alter the physical characteristics that convey the property's historical significance and qualify it for inclusion in the CRHR, the NRHP, or in a local register or survey that meets the requirements of PRC Sections 5020.1[k] and 5024.1[g].

California Register of Historical Resources

All resources listed in or formally determined to be eligible for the NRHP are eligible for the CRHR. The CRHR is a listing of State of California resources that are significant within the context of California's history. The CRHR is a statewide program of similar scope to the NRHP. In addition, properties designated under municipal or county ordinances also are eligible for listing in the CRHR. A historic resource must be significant at the local, state, or national level under one or more of the criteria defined in the 14 CCR Chapter 11.5, Section 4850. Historic resources are broken down into four criteria:

- **Criterion 1 (Events):** Resources that are associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.
- **Criterion 2 (Persons):** Resources that are associated with the lives of persons important to local, California, or national history.
- **Criterion 3 (Design/Construction):** Resources that embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of a master, or possess high artistic values.
- **Criterion 4 (Archaeological/Source of New Information):** Resources or sites that have yielded or have the potential to yield information important to the prehistory or history of the local area, California or the nation.

The CRHR criteria are similar to NRHP criteria and are tied to CEQA because any resource that meets the above criteria is considered a historical resource under CEQA.

Local

City of Cupertino General Plan

The City addresses cultural resources in the Land Use/ Community Design Element of the General Plan. This element discusses historical and archaeological resources and provides policies for preservation and mitigation of impacts to important cultural resources. There are no historic sites, commemorative sites, sites of historic mention, or community landmarks designated in the General Plan located in or adjacent to the Project area. Given the nature and location of the Project, policies related to historic preservation and cultural resources are not applicable to the Project.

Existing Conditions

Valley Water conducted a records search and pedestrian survey for potential cultural resources present in the Project area and summarized their findings in a Cultural Resources Investigation Memorandum (**Appendix E**; Pacific Legacy 2018). The purpose of the investigation was to identify historic properties and/or historical resources that may be adversely affected by ground disturbing activities associated with the Project.

The investigation included a search of archives and records, consultation with the Native American Heritage Commission (NAHC), and a pedestrian inventory survey. A search of the California Historical Resources Information System was conducted by the Northwest Information Center (NWIC) on August 22, 2018. This search indicated that two prior archaeological studies overlapped with approximately 20% of the Project area; however, no previously recorded archaeological sites, buildings, or structures were noted. The NWIC reported a “moderate potential” for Native American and historic period archeological resources.

No prehistoric or historic period cultural resources were identified during the pedestrian survey. This survey area included “all exposed soils in the Calabazas Creek bed and the eroded banks on both the east and west sides of the creek between Miller Avenue and Bollinger Road,” though particular attention was paid to the bank rehabilitation sites, creek bed, and access locations. Based on the results of the survey and an archival and records search, Pacific Legacy, Inc. archeologists determined there would be a low likelihood of encountering cultural resources during ground disturbing activities (Pacific Legacy 2018).

Discussion

a) and b) Would the Project cause a substantial adverse change in the significance of a historical or archeological resource pursuant to Section 15064.5?

The Project could result in impacts to buried cultural resources during excavation associated with installation of riprap bank repairs and minor grading of banks above rehabilitation sites. The Project would involve ground disturbance into eroding creek banks at 10 locations, some of which have been previously modified through past bank protection efforts. Excavation would generally range from 0 to 8 feet into the banks, though excavation into the existing embankment may be greater at some locations where the bank is being recontoured at a gentler slope (i.e., Sites 6, 9, and 10). As described above, the Project area does not contain any known historic resources and the likelihood of encountering archeological resources during ground disturbing activities is considered low. A survey of the Project area was performed to identify potential historic resources eligible for listing in the NRHP and/or the CRHR. There are no buildings or structures in or near the Project area that meet the eligibility criteria for listing in the NRHP and/or CRHR. The survey also determined that “the Project is not expected to reveal buried cultural materials” (Pacific Legacy 2018). While unlikely, it is possible that archeological resources could be encountered during this ground disturbing work. Implementation of BMP CU-1 (*Accidental Discovery of Archeological Artifacts, Tribal Cultural Resources, or Burial Remains*) would avoid or minimize any potential impacts to historical 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, no substantial adverse change to a historic or archeological resource would occur and the impact would be **less than significant**.

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

As described above, construction of the Project would result in relatively minor excavation of existing creek banks, generally in areas previously disturbed by bank maintenance activities. The potential for encountering human remains during construction would be low. A survey of the Project area intended to identify potential cultural and archaeological resources found no such resources within the Project area and determined that “the Project is not expected to reveal buried cultural materials” (Pacific Legacy 2018). While unlikely, the Project could uncover buried human remains during ground disturbing activities. Construction activities would comply with standard precautionary measures for the accidental discovery of burial remains, consistent with BMP CU-1 (*Accidental Discovery of Archeological Artifacts, Tribal Cultural Resources, or Burial Remains*). Therefore, the Project would not disturb any human remains and the impact would be **less than significant**.

Energy

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulatory Setting

In accordance with CEQA and Appendix F, Energy Conservation, of the 2019 CEQA Guidelines, and to assure that energy implications are considered in project decisions, EIRs are required to include a discussion of the potential significant energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. Appendix F of the CEQA Guidelines provides a list of energy-related topics to be analyzed in the EIR. In addition, while not described or required as significance thresholds for determining the significance of impacts related to energy, Appendix F provides topics for consideration in the discussion of energy use in an EIR, to the extent the topics are applicable or relevant to the project. While this document is an MND, a discussion of the potential significant energy impacts of the Project are included below.

The City of Cupertino's General Plan includes energy policies; however, these policies are related to energy procurement and efficiency in buildings and new development and are therefore not applicable to the Project.

Existing Conditions

California's energy system includes electricity, natural gas, and petroleum. According to the California Energy Commission, California's energy system generates 71 percent of the electricity, 10 percent of the natural gas, and 31 percent of the petroleum consumed or used in the State. The rest of the State's energy and energy sources are imported, and includes electricity from the Pacific Northwest and the Southwest; natural gas purchases from Canada, the Rocky Mountain states, and the southwest; and petroleum imported from Alaska and foreign sources (CEC 2019a; 2019b; and 2019c).

California has one of the most progressive Renewable Portfolio Standard policies in the country, requiring that all utilities in the State supply 60 percent of their retail electric sales from eligible renewable energy resources by 2030 and putting the State on a path to 100 percent fossil-fuel free electricity by 2045 (California Public Utilities Commission 2019).

There is no existing electricity or natural gas use in the Project area.

Discussion

- a) **Would the Project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation?**

Construction of the Project would require temporary use of fuel for vehicles and equipment, and electrical energy use during construction would be negligible. If maintenance of the bank rehabilitation sites is required during Project operation, this work would be minor and infrequent, and result in negligible energy use. There would be **no impact**.

- b) **Would the Project conflict with or obstruct a State or local plan for renewable energy or energy efficiency?**

The Project would not include the development or demolition of any buildings. There would be no operational energy use after the bank protection work is completed. Energy and energy efficiency/conservation standards or codes, such as the California Building Standards or California Energy Code, are not applicable to the Project. Given the nature of the Project, it would not conflict with or obstruct California's Renewable Portfolio Standard and **no impact** would occur.

Geology and Soils

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Regulatory Setting

Alquist-Priolo Earthquake Fault Zoning Act

California's Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) (PRC Section 2621 et seq.), originally enacted in 1972 as the Alquist-Priolo Special Studies Zones Act and renamed in 1994, is intended to reduce the risk to life and property from surface fault rupture during earthquakes. The Alquist-Priolo Act prohibits the location of most types of structures intended for human occupancy across the 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.” A fault is considered sufficiently active if one or more of its segments or strands shows evidence of surface displacement during Holocene time (defined for purposes of the act as referring to approximately the last 11,000 years). A fault is considered well defined if its trace can be clearly identified by a trained geologist at the ground surface or in the shallow subsurface, using standard professional techniques, criteria, and judgment.

Seismic Hazards Mapping Act

Similar to the Alquist-Priolo Act, the Seismic Hazards Mapping Act of 1990 (PRC Sections 2690–2699.6) is intended to reduce damage resulting from earthquakes. Although the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including strong ground shaking, liquefaction, and seismically induced landslides. Its provisions are similar in concept to those of the Alquist-Priolo Act (i.e., the State is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards, and cities and counties are required to regulate development within mapped seismic hazard zones).

A primary purpose of the Seismic Hazards Mapping Act is to assist cities and counties in preparing the safety elements of their general plans and encourage land use management policies and regulations that reduce seismic hazards. The intent of this act is to protect the public from the effects of strong ground shaking, liquefaction, landslides, ground failure, or other hazards caused by earthquakes. Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development. Specifically, cities and counties are prohibited from issuing development permits for sites within seismic hazard zones until appropriate site-specific geologic and/or geotechnical investigations have been carried out and measures to reduce potential damage have been incorporated into the development plans. In addition, the California Geologic Survey’s Special Publication 117A, Guidelines for Evaluating and Mitigating Seismic Hazards in California, provides guidance for evaluating earthquake-related hazards for projects in designated zones with required investigations and recommending mitigation measures, as required by PRC Section 2695(a).

Liquefaction hazards mapping has been conducted for the part of the Bay Area that includes the Project area.

Existing Conditions

Regional Geologic Setting

The San Francisco Bay region 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 Project area.

Liquefaction

Liquefaction is the transformation of saturated, loose, fine grained sediment to a fluid-like state because of earthquake shaking or other rapid loading. Soils most susceptible to liquefaction are loose to medium dense, saturated sands, silty sands, sandy silts, non-plastic silts and gravels with poor drainage, or those capped by or containing seams of impermeable sediment. According to the liquefaction hazard maps prepared for the United States Geological Service (USGS), the liquefaction probability in the Project area for a magnitude 7.8 earthquake on the San Andreas Fault would be between 0 and 5 percent (Holzer, T.L., et al., 2008). The Project area is in a County-designated liquefaction hazard zone, as all major creeks are considered susceptible to liquefaction (Santa Clara County 2002).

Alquist-Priolo Fault Zone

The Project area is not located within a State-designated Alquist-Priolo Earthquake Fault Zone, where site-specific studies addressing the potential for surface fault rupture are required, and no known active faults traverse the site. The nearest Alquist-Priolo Earthquake Fault Zones are associated with the San Andreas Fault Zone, which is located approximately 5 miles west of the site (City of Cupertino 2015). Two additional faults closely associated with the San Andreas fault, the Monta Vista-Shannon and Sargent-Berrocal fault systems, occur approximately 1 and 3 miles west of the Project area, respectively. The project site is not located within a county-designated fault rupture zone (Santa Clara County 2002).

Seismicity

The Project area and the entire Bay Area is in a seismically active region subject to strong seismic ground shaking. Ground shaking is a general term referring to all aspects of motion of the earth's surface resulting from an earthquake and is normally the major cause of damage in seismic events. The extent of ground-shaking is controlled by the magnitude and intensity of the earthquake, distance from the epicenter, and local geologic conditions.

Soils

Soils along Calabazas Creek in the Project area are comprised of approximately half El Palo Alto complex on 0 to 2 percent slopes, and half Stevens Creek complex on 0 to 2 percent slopes (National Resource Conservation Service 2015). Both soil complexes are found on alluvial fans and stream terraces with predominantly well-drained, sandy/silty clay loams. The Project area is not located within a County-designated compressible soils hazard zone (Santa Clara County 2002).

Lateral Spreading

Liquefaction-induced lateral spreading has been defined as the lateral displacement of large surficial blocks of soil as a result of liquefaction in a subsurface layer. Lateral spreading refers to more moderate movements of gently sloping ground due to soil liquefaction. Liquefaction-induced lateral spreading occurs on mild slopes of 0.3 to 5 percent underlain by loose sand and shallow water. As stated in the Seismic Hazards Report for the Cupertino quadrangle, "the potential for ground failure resulting from liquefaction-induced lateral spreading of alluvial materials...is not specifically addressed by the earthquake-induced landslide zone or this report" (Clahan et. al. 2006).

Paleontological Resources

Paleontological resources are the fossilized remains of plants and animals, including vertebrates (animals with backbones), invertebrates (e.g., starfish, clams, ammonites, and marine coral),

microscopic plants and animals (microfossils), and trace fossils (footprints, burrows, etc.). Fossils are preserved in sedimentary rocks, which are the most abundant rock type exposed at the surface of the earth. The geologic formation that underlies the Project area shows that the region is classified as consisting of Qa.1 (alluvial sand, fine-grained silt, and gravel; where differentiated represents alluvial fan deposits at base of slopes and upper fan areas) and Qa.2 (alluvial gravel, sand, silt, and clay; represents younger stream alluvium in fan deposits). The University of California Museum of Paleontology (UCMP) database was searched for fossil locations in Santa Clara County and the search did not identify any fossil sites from Holocene formations (UCMP 2019).

Discussion

a) Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

Surface rupture occurs when the ground surface is broken due to fault movement during an earthquake. The location of surface rupture generally can be assumed to be along an active or potentially active major fault trace. The Project area is located outside of the limits of any State-designated Alquist-Priolo Special Studies Zone (CDC 2002a) and approximately 5 miles west of the San Andreas Fault. The Monta Vista-Shannon and Sargent-Berrocal fault systems, occur approximately 1 and 3 miles west of the Project area, respectively. The Project area is not accessible by the public, and the Project would not expose people working at the Project site or structures to potential substantial adverse effects related to the rupture of a known earthquake fault. Given the small-scale construction activities and distance from the nearest fault lines, the Project would not exacerbate existing seismic hazards or expose additional people to potential adverse effects during seismic activity. Therefore, **no impact** would occur.

ii) Strong seismic ground shaking?

Due to the Project's proximity to multiple fault lines, there is an underlying risk of ground shaking from earthquakes. An earthquake along one of the faults within the Bay Area could induce ground shaking in the Project area. The Project would be designed following standard engineering and construction techniques intended to address seismic risks, ensuring that the sheet pile walls are constructed to withstand strong seismic ground shaking. Valley Water conducted a geotechnical investigation that provided site-specific information about underlying substrates in order to design safe and stable sheet pile walls. The Project area is not accessible by the public, and the Project would not expose people working at the Project site to additional risk during strong seismic ground shaking. Therefore, a **less than significant** impact is anticipated.

iii) Seismic-related ground failure, including liquefaction?

Due to the Project's location along a creek, the Project area is located within a Liquefaction Zone (CDC 2002). The Cupertino Quadrangle's Seismic Hazards Zonation Program states that "liquefaction may occur in water-saturated sediment during moderate to great earthquakes" (Clahan et. al. 2006). While there is the potential for liquefaction to occur at the site due to water-saturated sediment along streams, Calabazas Creek is typically dry during the work window. There is currently no public access to the Project area, and the

Project would not provide new public access or involve the construction of any buildings that would be susceptible to damage from liquefaction. Therefore, there would be no increase in the number of people who would be exposed to the adverse effects of liquefaction. The sheet pile walls and riprap bank repairs would be designed and constructed according to standard engineering practices that minimize seismic risks. Therefore, the impact would be **less than significant**.

iv) Landslides?

The topography in the Project vicinity is generally flat and the Project area is not located within a Landslide Hazard Zone (CDC 2002b). However, creek banks in the Project area are steep and susceptible to minor erosion. Workers would stabilize the creek banks with the use of heavy equipment and would generally be protected from any falling rocks or debris. Workers would be required to comply with general safety measures to ensure risks of injury, including from landslides, are minimized. Therefore, the potential to expose construction workers to risks related to the instability of creek banks during construction would be minimal. The public does not have access to the Project area. After construction is complete, the creek banks would be less susceptible to erosion, slides, and bank failure. Therefore, the impact would be **less than significant**.

b) Would this Project result in substantial soil erosion or the loss of topsoil?

During construction, the Project could result in temporary soil erosion on exposed or graded surfaces; however, the Project is intended to stabilize eroding creek banks through installation of riprap and sheet pile walls, which would substantially reduce the potential for erosion in the Project area. Graded bank slopes above the riprap or sheet pile walls, such as at Sites 6, 7, 9 and 10, would be compacted and hydroseeded to reduce the potential for erosion. Furthermore, BMPs would be employed (i.e., BMPs WQ-2 [*Limit Impacts from Staging and Stockpiling Materials*], WQ-3 [*Use Seeding for Erosion Control, Weed Suppression, and Site Improvement*], and WQ-10 [*Prevent Stormwater Pollution*]) to minimize construction-related erosion. The Project would obtain coverage for discharge of stormwater from the construction area under the Construction General Permit (Order 2009-0009-DWQ) issued by the State Water Resources Control Board. The Construction General Permit requires preparation of a stormwater pollution prevention plan (SWPPP) by a qualified professional and implementation of the SWPPP throughout the construction period, which would ensure proper site drainage and prevent the erosion of soils and loss of topsoil. Therefore, the impact for soil erosion or loss of topsoil would be **less than significant**.

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

As explained in sections **a-i)** and **a-iv)**, the Project's location and flat topography above the creek banks makes the possibility of a substantial landslide or ground collapse unlikely. While the Project area is located within a liquefaction zone and could be susceptible minor bank failures, which are common in creek environments, the risk of these seismic hazards would be minimized by the Project's use of structurally sound design and construction practices intended to account for such risks. Valley Water conducted a geotechnical investigation that provided site-specific information about underlying substrates in order to develop a safe and stable Project design. The bank rehabilitation work would not significantly change the loading on underlying soils. The Project is designed to stabilize the eroding creek banks and therefore would not create an unstable condition which could potentially result in landslide, lateral

spreading, subsidence, liquefaction or collapse. Additionally, the Project does not include the construction of any buildings that would be susceptible to these instability concerns. The impact would be **less than significant**.

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

Expansion and contraction 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. The Project does not include the construction of any structures that could expose people or property to risks associated with damage from expansive soils, if present, as the Project would strengthen and protect existing eroding banks. Furthermore, excavation into existing soils would be minor, further reducing any potential risks posed by expansive soils. There is no public access to the Project area. Regardless, the Project would be constructed according to industry standard geotechnical practices which would minimize any potential damage from expansive soils. Therefore, the impact would be **less than significant**.

- e) **Would the Project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?**

The Project would not utilize septic tanks or require wastewater disposal systems and would not use a sewer system. Therefore, **no impact** would occur.

- f) **Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

Construction would require minor excavation during into underlying native substrates for the installation of riprap. Based on a search of the UCMP database, the Project area is not known to contain paleontological resources. The geology and soils on the project site are common throughout the region and are not considered to be unique. Additionally, the Project area has been subject to prior bank repair work and no paleontological or geologic features have been discovered and documented. There is a low likelihood of encountering paleontological resources or unique geologic features during Project construction. Therefore, the impact would be **less than significant**.

Greenhouse Gas Emissions

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulatory Setting

Assembly Bill 32

The California State Legislature adopted Assembly Bill (AB) 32 in 2006. AB 32 focuses on reducing greenhouse gases (GHGs; CO₂, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) to 1990 levels by the year 2020. Pursuant to the requirements in AB 32, ARB adopted the Climate Change Scoping Plan (Scoping Plan) in 2008, which outlines actions recommended to obtain that goal. The Scoping Plan calls for an “ambitious but achievable” reduction in California’s GHG emissions, cutting approximately 30 percent from business as usual emission levels projected for 2020, or about 10 percent from today’s levels.

On a per-capita basis, that means reducing annual emissions of 14 tons of CO₂ for every person in California down to about 10 tons per person by 2020. In October 2010, ARB prepared an updated 2020 forecast to account for the recession and slower forecasted growth. The forecasted inventory without the benefits of adopted regulation is now estimated at 545 million metric tons (MT) of CO₂ equivalents² (CO₂e). Therefore, under the updated forecast, a 21.7 percent reduction from business as usual is required to achieve 1990 levels.

Bay Area Air Quality Management District

The BAAQMD has not adopted significance thresholds for construction related GHG emissions. However, the BAAQMD has included in its CEQA Guidelines stationary and operational-related thresholds for the emission of GHG shown in **Table 4-7**.

² GHG emissions are typically measured in terms of pounds or tons of “CO₂ equivalents” (CO₂e). For example, sulfur hexafluoride is 22,800 times more potent at contributing to global warming than CO₂.

Table 4-7. BAAQMD Greenhouse Gas Thresholds of Significance

Project Type	Construction-Related	Operational-Related ³
Projects other than Stationary Sources ¹	None	Compliance with Qualified GHG Reduction Strategy or 1,100 MT of CO ₂ e/yr. or 4.6 MT of CO ₂ e/SP ² /yr. (residents+employees)
Stationary Sources ¹	None	10,000 MT of CO ₂ e/yr.

Notes:

1. According to the BAAQMD CEQA Guidelines, a stationary source project is one that includes land uses that would accommodate processes and equipment that emits GHG emissions and would require a BAAQMD permit to operate. projects other than stationary sources are land use development projects including residential, commercial, industrial, and public uses that do not require a BAAQMD permit to operate.
2. SP = service population (residents + employees)
3. If annual emissions of operational-related GHGs exceed these levels, the Project would result in a cumulatively considerable contribution of GHG emissions and a cumulatively significant impact to global climate change.

Source: BAAQMD, CEQA Air Quality Guidelines, May 2017

State and Local Plans

California has one of the most progressive Renewable Portfolio Standard policies in the country, requiring that all utilities in the state supply 60 percent of their retail electric sales from eligible renewable energy resources by 2030 and putting the state on a path to 100 percent fossil-fuel free electricity by 2045 (California Public Utilities Commission 2019). The City of Cupertino's Climate Action Plan (CAP) is intended to guide the city towards its goals of achieving "a 15% reduction in carbon emissions by the year 2020, 49% reduction by 2035 and 83% by 2050" (City of Cupertino 2015b). Increasing renewable energy use is one of the city's reduction methods.

Existing Conditions

Global climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans in recent decades. The Earth's average near-surface atmospheric temperature rose 0.6 ± 0.2 degrees Celsius ($^{\circ}\text{C}$) or $1.1 \pm 0.4^{\circ}$ Fahrenheit ($^{\circ}\text{F}$) in the 20th century. The prevailing scientific opinion on climate change is that most of the warming observed over the last 50 years is attributable to human activities. The increased amounts of CO₂ and other GHGs are the primary causes of the human-induced component of warming. GHGs are released by the burning of fossil fuels, land clearing, agriculture, and other activities, and lead to an increase in the greenhouse effect. GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change include:

- CO₂
- Methane
- Nitrous oxide
- Hydrofluorocarbons
- Perfluorocarbons
- Sulfur Hexafluoride

Over the last 200 years, humans have caused substantial quantities of GHGs to be released into the atmosphere. These emissions are increasing GHG concentrations in the atmosphere, and enhancing the natural greenhouse effect, which is believed to be causing global warming. While manmade GHGs include naturally occurring GHGs such as CO₂, methane, and nitrous oxide, some gases, like hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride are completely new to the atmosphere.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

These gases vary considerably in terms of global warming potential, which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The global warming potential is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere (“atmospheric lifetime”). The global warming potential of each gas is measured relative to carbon trapped by one-unit mass of the GHG to the ratio of heat trapped by one-unit mass of CO₂ over a specified time period.

Discussion

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

Project construction would temporarily generate GHG emissions from the use of fossil fuel-powered vehicles and equipment. These emissions would occur only when construction equipment is in operation, or when worker or vendor vehicles are driving to or from the Project area. Methane would also be emitted during the fueling of heavy equipment. Exhaust emissions from construction activities would vary as construction intensity changes. Construction emissions would be limited to the Project's 12 months of construction, spread across 2 years.

The BAAQMD has not adopted thresholds of significance for construction related GHG emissions in their CEQA Air Quality Guidelines. However, lead agencies are encouraged to quantify and disclose GHG emissions that would occur during construction. Based on modeling conducted for the Project (**Appendix B**), the GHG emissions would be approximately 346 MT of CO₂e during the 2-year construction period, or an average of 173 MT of CO₂e for each construction year. Given the temporary nature of these emissions and the low intensity of construction, the impact from construction GHG emissions would not result in a significant impact on the environment.

Once operational, the Project would not directly generate GHGs in excess of existing conditions, as Valley Water currently performs periodic inspections and maintenance in the Project area under the SMP. Any maintenance of the bank rehabilitation sites would be minor and infrequent, generating negligible GHG emissions. As a result, pre- and post-Project operational emissions would be unchanged or less, given the reduced need for maintenance in the Project area after work is complete. Therefore, the impacts from construction and operational GHG emissions would be **less than significant**.

b) Would the Project conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The Project would not conflict with any applicable plan, policy, or regulation concerning GHGs. The Project was compared with the AB 32 Scoping Plan in order to determine compliance with any applicable plan, policy, or regulation adopted to reduce emissions of GHGs. The Scoping Plan contains a variety of strategies to reduce the State's emissions. The strategies in AB 32 are not applicable to the Project as the Project includes creek bank rehabilitation and would not result in additional operational emissions, such as through the construction of buildings or other new development. The City of Cupertino's CAP includes measures for construction waste diversion, but these measures are not applicable to the Project as they relate to building permits. The CAP also includes a measure to encourage planting of trees to support the urban forest, including through landscaping requirements. The Project would be consistent with this measure by obtaining tree removal permits and replacing removed trees covered under the City's *Protected Tree Ordinance* (see the *Biological Resources* section, above). Therefore, the Project would not conflict with the AB 32 Scoping Plan or the City of Cupertino CAP and there would be **no impact**.

Hazards and Hazardous Materials

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, storage or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulatory Setting

State

Hazardous Waste Management

In California, the Department of Toxic Substances Control (DTSC) administers the federal Resource Conservation and Recovery Act (RCRA) program, as well as additional state-specific requirements for managing hazardous waste in accordance with the California Hazardous Waste Control Law (Section 25100 et seq.). The State criteria for identifying hazardous waste are based on characteristics of toxicity, flammability, reactivity, and corrosiveness. These criteria are broader than the RCRA hazardous waste criteria; therefore, hazardous wastes in California can be identified as either RCRA hazardous waste or non-RCRA hazardous waste.

Hazardous Materials Management

In California, hazardous waste and materials handling are regulated under the Unified Program. The Unified Program consolidates the administrative requirements, permits, inspections, and enforcement activities for existing programs, as established by different state agencies. The

Unified Program requires that facilities properly manage hazardous materials and disclose information regarding such materials to minimize the risk of a hazardous materials release and improve emergency response actions in the event of a release. The California Environmental Protection Agency (Cal/EPA) oversees the entire program and local government agencies, known as Certified Unified Program Agencies, implement and enforce the elements of the Unified Program.

Hazardous Materials Transportation

The California Highway Patrol, California Department of Transportation, and DTSC are responsible for enforcing federal and State regulations pertaining to the transportation of hazardous materials. If a discharge or spill of hazardous materials occurs during transportation, the transporter is required to take appropriate immediate action to protect human health and the environment (e.g., notify local authorities and contain the spill), and is responsible for the discharge cleanup (22 CCR Section 66260.10 et seq.).

Hazardous Materials Release Sites

In California, the U.S. EPA has granted most enforcement authority of federal hazardous materials regulations to Cal/EPA. Under the authority of Cal/EPA, the State Water Resources Control Board (SWRCB) and DTSC are responsible for overseeing the remediation of contaminated soil and groundwater sites. The provisions of Government Code 65962.5 (also known as the Cortese List) require the SWRCB, DTSC, California Department of Health Services, and California Department of Resources Recycling and Recovery (CalRecycle) to submit information pertaining to sites associated with solid waste disposal, hazardous waste disposal, and hazardous materials releases to Cal/EPA.

Worker Health and Safety

State worker health and safety regulations related to construction activities are enforced by Cal/OSHA. Regulations include requirements for protective clothing, training, and limits on exposure to hazardous materials. Cal/OSHA also enforces occupational health and safety regulations specific to lead and asbestos investigation and abatement: these regulations equal or exceed their federal counterparts. Specific worker safety measures for excavation hazards (e.g., falling or cave-in of the excavation wall) are described in 8 CCR Section 1541.

California Emergency Services Act

The Emergency Services Act supports the State's responsibility to mitigate adverse effects of natural, manmade, or war-caused emergencies that threaten human life, property, and environmental resources of the State. The act aims to protect human health and safety and to preserve the lives and property of the people of the State. The act provides the Office of Emergency Services (OES) with the authority to prescribe powers and duties supportive of the act's goals. In addition, the act authorizes the establishment of local organizations to carry out the provisions through necessary and proper actions.

California has developed an emergency response plan to coordinate emergency services provided by federal, State, and local governments and private agencies. Responding to hazardous materials incidents is one part of this plan. The plan is administered by the California OES, which coordinates the responses of other agencies. County Offices of Emergency Services coordinate response to emergencies in the individual counties in the state. Emergency Response Team members respond and work with local fire and police agencies, emergency medical providers, California Highway Patrol, CDFW, and the California Department of Transportation.

Local

City of Cupertino General Plan

The Health and Safety Element of the City of Cupertino General Plan includes policies relating to public health and safety (City of Cupertino 2015a). Relevant policies are included in **Table 4-8**.

Table 4-8. Cupertino General Plan Policies Related to Hazards and Hazardous Materials

Policy	Description
HS-6.1: Hazardous Materials Storage and Disposal	Require the proper storage and disposal of hazardous materials to prevent leakage, potential explosions, fire or the release of harmful fumes. Maintain information channels to the residential and business communities about the illegality and danger of dumping hazardous material and waste in the storm drain system or in creeks.
HS-6.5: Hazardous Waste Disposals	Continue to support and facilitate, for residences and businesses, a convenient opportunity to properly dispose of hazardous waste.
HS-7.5: Hillside Grading	Restrict the extent and timing of hillside grading operations to April through October except as otherwise allowed by the City. Require performance bonds during the remaining time to guarantee the repair of any erosion damage. Require planting of graded slopes as soon as practical after grading is complete.

Source: City of Cupertino 2015a

Existing Conditions

Hazardous Materials

The Project area is located in the Calabazas Creek corridor from Miller Avenue to Bollinger Road between low density residential and public parks. Existing activities within the Project area do not include the storage, use, transportation, or disposal of any hazardous materials. Existing maintenance work in the Project reach does not create circumstances where people or the environment are exposed to hazardous materials. The Project area is not on a State listed hazardous materials clean-up site.

According to the DTSC EnviroStor database, the nearest hazardous waste site is the Sedgwick Elementary School Site, which is located approximately 0.3 mile east of the Project area. Historically, this site and surrounding areas were used as an orchard with two small single room dwellings on the site. The site was later developed as residential property and the Cupertino School District plans to expand the adjacent elementary school onto the site. In 2014, a Phase I Environmental Site Assessment was completed that found chlordane and lead in soil around the perimeter of existing building structures. In February 2019 the DTSC confirmed that all response actions have been completed and no further remediation actions are necessary (DTSC 2020). The SWRCB GeoTracker database does not list any open leaking underground storage tanks or solid waste disposal sites within 1 mile of the Project area.

Sensitive Receptors

The nearest sensitive receptors include the residential properties and Creekside Park, which occur adjacent to the Project area. Creekside Park includes athletic fields, which occur adjacent to Sites 2 and 3, approximately 50 feet west of the work area. Aside from these residences and parks, the nearest sensitive receptors to the Project area include the Purglen of Cupertino Assisted Living Facility located approximately 550 feet east of the Project area, the Kaiser Permanente Hospital located 0.25-mile north, and three schools located between 0.2- and 0.3-mile east.

Fire Hazard Severity Zone

The California Department of Forestry and Fire Protection (CalFire) has mapped Very High Fire Hazard Severity Zones in Santa Clara County to help responsible local agencies, such as fire protection districts and fire departments, identify measures to reduce the potential for loss of life, property, and resources from wildland fire. The Project area is located within the Local Responsibility Area (LRA) and is not considered a very high fire hazard severity zone (CalFire 2008).

Aviation Hazards

The nearest public use airport to the Project area is the Norman Y. Mineta San Jose International Airport, located approximately 5 miles northeast of the Project area. The Project area does not fall within the airport influence area for any public airports.

Emergency Response and Evacuation

Per the County of Santa Clara and City of Cupertino Emergency Operations Plans, there are no designated emergency evacuation routes within the Project area (City of Cupertino 2019d).

Discussion

a) Would the Project create a significant hazard to the public or the environment through the routine transport, use, storage or disposal of hazardous materials?

During Project construction, limited quantities of miscellaneous hazardous substances (e.g., petroleum-based fluids, solvents, and lubricants typical of construction projects) would be used and stored at the Project area, presenting the potential for an accidental release during handling and transfer. Such an accidental release could pose a hazard to construction workers, users of Creekside Park (should a spill occur in the staging area), and the environment. However, risks associated with the use of hazardous substances would be limited by Valley Water BMPs, including measures requiring proper management of hazardous materials and spill prevention procedures (i.e., BMPs HM-1, HM-3, HM-4, HM-5, HM-6, and HM-7). Valley Water would also be required to obtain a permit under CWA Section 401 from the RWQCB that would reinforce these BMPs and minimize the possibility of risks from hazardous materials. Additionally, preparation and implementation of a site-specific SWPPP, as described in further detail in under *Hydrology and Water Quality*, would be required for the Project. SWPPPs have been widely demonstrated to minimize the potential exposure of construction workers and the environment to hazardous materials. Once completed, the Project would not involve the routine transport, use, storage, or disposal of hazardous materials other than for the occasional minor maintenance work, consistent with existing maintenance in the Project area. The impact would be **less than significant**.

b) Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Construction and maintenance activities would include the use of limited quantities of ordinary equipment fuels and fluids. These materials would not be used in quantities that would pose a substantial threat to human or environmental health. Consistent with Valley Water BMPs, materials would be used in a manner that minimizes the risk of accidental spills and would be properly stored when not in use. In the unlikely event of a spill, fuels and or other hazardous materials would be controlled and disposed of in accordance with applicable regulations. During operation, hazardous materials may be occasionally utilized for routine Project

maintenance but would be used in small amounts that would not pose a threat to the public or environment. The use of hazardous materials during Project operation would be the same as under existing maintenance of the Project area or less, given the reduced need for maintenance. The impact would be **less than significant**.

c) Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school?

The Project are is located adjacent to existing residences and Creekside Park. Three schools located between 0.2- and 0.3-mile east of the Project area (Cupertino High School, Sedgwick Elementary School, and Hyde Middle School). Construction and maintenance activities would include the use of limited quantities of ordinary equipment fuels and fluids, but these materials would not be used in quantities that would pose a substantial threat to human health. The Project would not emit hazardous emissions. However, Valley Water would implement a number of BMPs (see above) to minimize the potential of releasing hazardous materials during construction. Therefore, the Project would have a **less than significant** impact on the public, including schools, from hazardous emissions or materials.

d) Would the Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

The nearest hazardous materials site is the Sedgwick Elementary School Site, which is located approximately 0.3 mile east of the Project area. There are no sites, including sites compiled pursuant to Government Code Section 65962.5, in the Project area. Therefore, the Project would not create a significant hazard to the public or the environment as a result of location on a hazardous materials site. **No impact** would occur.

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

The Project is not located within an airport land use plan or within 2 miles of a public airport or public use airport. The nearest airport to the Project area is the Norman Y. Mineta San Jose International Airport, which is located approximately five miles northeast of the site. The Project would not alter existing land uses and therefore the Project would not result in a safety hazard for people in the Project area. **No impact** would occur.

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

According to the County of Santa Clara and City of Cupertino Emergency Operations Plans, there are no designated emergency evacuation routes in the Project area. The Project would result in minimal vehicle trips related to worker and vendor commute traffic, haul trips for the import and export of material, and the movement of construction equipment to the Project area. As described in the Transportation/Traffic section, the Project would not result in substantial traffic delays, as traffic flow would be maintained within the Project area. BMP TR-1 (*Incorporate Public Safety Measures*), would be incorporated into the Project, which requires fences, barriers, lights, flagging, guards, and signs to be installed to give adequate warning to the public of construction activities and dangerous conditions. Traffic flow on adjacent roadways may be temporarily delayed due to haul trucks, but this delay would be brief and would only occur as haul trucks enter and exit the Project area. Valley Water would coordinate with surrounding uses to ensure that access for emergency vehicles is maintained at all times

during construction activities. Therefore, implementation of the Project is not anticipated to impede emergency access to the Project area and/or surrounding area, and the impact would be considered a **less than significant**.

g) Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The Project is not located in a locally determined Moderate, High, or Very High Fire Hazard Severity Zone, indicating that the probability of a wildfire at the Project area is very low. The Project area is not within a Wildland Urban Interface Zone (CalFire 2008), the primary area of concern regarding wildfires. The Project would not add any structures susceptible to fire to the area, making loss, injury or death involving wildland fires highly unlikely. **No impact** would occur.

Hydrology and Water Quality

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

Regulatory Setting

Federal Clean Water Act

The CWA (33 USC Section 1251 et seq. [1976 & Supp II 1978]) provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. CWA sections applicable to the Project are Sections 303, 305, 401, and 404.

Sections 303(d) and 305—Impaired Waters and Total Maximum Daily Loads

The State of California adopts water quality standards to protect beneficial uses of waters of the State as required by Section 303(d) of the CWA and the Porter-Cologne Act. Section 303(d) of the CWA established the total maximum daily load (TMDL) process to guide the application of

State water quality standards. To identify candidate water bodies for TMDL analysis, a list of water quality-impaired segments, referred to as a 303(d) list, is generated by the SWRCB. These stream or river segments are impaired by the presence of pollutants (e.g., sediment, other specific constituents) and are more sensitive to disturbance because of this impairment. CWA Section 305(b) requires States to develop a report assessing Statewide surface water quality. Both CWA requirements are being addressed through the development of a 303(d)/305(b) Integrated Report, which addresses both an update to the 303(d) list and a 305(b) assessment of Statewide water quality. The SWRCB must develop a long-term plan for completing TMDLs within 8 to 13 years from first listing.

Section 401—Water Quality Certification

Section 401 of the CWA requires that an applicant pursuing a federal permit to conduct an activity that may result in a discharge of a pollutant obtain a Water Quality Certification (or waiver). A Water Quality Certification requires the evaluation of water quality considerations associated with dredging or placement of fill materials into waters of the United States. Water Quality Certifications are issued by one of the nine geographically separated Regional Water Quality Control Boards in California. The project falls within the jurisdiction of the San Francisco Bay RWQCB.

Valley Water would be required to obtain a Water Quality Certification for Project construction activities that involve disturbance or placement of dredged or fill material within waters of the United States.

Section 402—NPDES Permit Program

CWA Section 402 establishes the National Pollutant Discharge Elimination System (NPDES), a permitting system for the discharge of any pollutant (except for dredged or fill material) into waters of the United States. Section 402(p) requires permits for discharges of stormwater from industrial/construction and municipal separate storm sewer systems (MS4s). The RWQCB is delegated with the responsibility of protecting the quality of surface and ground waters of the State in the Project vicinity.

The NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ as amended by order 2012-0006-DWG) (Construction General Permit) regulates stormwater discharges for construction activities under CWA Section 402. Dischargers whose projects disturb 1 or more acres of soil, or whose projects disturb less than 1 acre but are part of a larger common plan of development that in total disturbs 1 or more acres, are required to obtain coverage under the Construction General Permit. The Construction General Permit requires the development and implementation of a SWPPP by a Qualified SWPPP Developer and Qualified SWPPP Practitioner, respectively.

Because the Project would disturb 1 or more acres of soil, Valley Water would be required to obtain coverage under the Construction General Permit. The permit covers construction activities including clearing, grading, grubbing, and disturbances to the ground (e.g., stockpiling or excavation).

Section 404—Dredge/Fill Permitting

The discharge of dredged or fill material into waters of the United States is subject to permitting specified under Title IV (Permits and Licenses) of the CWA and specifically under Section 404 (Discharges of Dredge or Fill Material) of the CWA. Section 404 of the CWA regulates placement of fill materials into the waters of the United States. Section 404 permits are administered by USACE. Valley Water would be required to obtain a Section 404 permit for Project construction activities that will permanently or temporarily fill water of the United States.

California Porter-Cologne Water Quality Control Act

The Porter-Cologne Act authorizes the State to implement the provisions of the CWA and establishes a regulatory program to protect the water quality and beneficial uses of waters of the State. The Act requires projects that are discharging, or proposing to discharge, wastes that could affect the quality of the State's waters to file a report of waste discharge with the appropriate Regional Board. The Porter-Cologne Act also requires that SWRCB or RWQCBs adopt Basin Plans for the protection of water quality. Each Basin Plan is updated and reviewed every 3 years and provides the technical basis for determining waste discharge requirements, taking enforcement actions, and evaluating clean water grant proposals.

As noted above, the Project is under the jurisdiction of the San Francisco Bay RWQCB. The RWQCB is responsible for the protection of beneficial uses of water resources in the San Francisco Bay Region. The Basin Plan for the San Francisco Bay Region was last updated in 2018 (RWQCB 2018). The beneficial uses for Calabazas Creek include: agricultural supply, groundwater recharge, cold freshwater habitat, warm freshwater habitat, wildlife habitat, water contact recreation, and non-contact water recreation.

In 2019, the SWRCB adopted the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. The Procedures were intended to update and clarify the extent of waters of the State and establish/update regulatory review requirements. The Procedures consist of four major elements: 1) a wetland definition; 2) a framework for determining if a feature that meets the wetland definition is a water of the State; 3) wetland delineation procedures; and 4) procedures for the submittal, review and approval of applications for Water Quality Certifications and Waste Discharge Requirements for dredge or fill activities. The Procedures became effective on May 28, 2020. Consistent with these Procedures, Valley Water would be required to obtain a Water Quality Certification and/or Waste Discharge Requirements for Project construction activities that involve disturbance or placement of dredged or fill material within waters of the State.

Existing Conditions

Surface Water

Calabazas Creek extends approximately 13.3 miles from the confluence with the Guadalupe Slough on the San Francisco Bay upstream to the Saratoga foothills. The total drainage area of Calabazas Creek Watershed is 22.7 square miles, over 90% of which is urbanized. Calabazas Creek is on the CWA Section 303(d) list for diazinon, an insecticide that has been widely used in California resulting in contamination of surface waters. In the reach between Bollinger Road and Miller Avenue (Project area), there is approximately 4 square miles of drainage, which is primarily urban with limited areas in the low-density residential foothills. Regnart Creek, an urban drainage channel, confluent with Calabazas Creek approximately 900 feet upstream of Miller Avenue, adding approximately 2 square miles of urbanized watershed. Regnart Creek is approximately 8 feet higher in elevation than Calabazas Creek, and this change in elevation has resulted in a scour hole in the Calabazas Creek bed. Channel degradation and incision has occurred in Project area, which is a classic example of an urbanized stream with a starved sediment supply (J. Xu, pers. comm. 2019).

Stream gauges and field observations on Calabazas Creek indicate that the creek is dry most of the year, except following rain events. On average, the summer months between late April and November have no appreciable flows, with only a small amount of discharge from storm drain systems. In the winter months, substantial flows occur which frequently reach over 100 cfs at 6

feet or greater above grade. However, these flows recede quickly, usually within 24-hours (J. Xu, pers. comm. 2019; Valley Water 2019).

Water flow in Calabazas Creek is typically concentrated in a single-thread, relatively low-gradient channel below the ordinary high-water mark elevation. The channel is largely unvegetated with a bed of cobble, gravel, and coarse sand. The surrounding mature riparian tree canopy shades much of the channel and the channel bed is largely unvegetated.

There are areas of existing bank protection (i.e., riprap, grouted riprap, and sacked concrete) along the channel in the Project area, and the channel is concrete-lined at the Bollinger Road and Miller Avenue bridges, each extending approximately 65 feet into the Project area. Regnart Creek flows into Calabazas Creek over a concrete apron and has concrete banks upstream of the apron.

Groundwater

California Department of Water Resources Bulletin 118 places the Project in the northwestern corner of Santa Clara Subbasin of the Santa Clara Valley Groundwater Basin. The groundwater subbasin has a total surface area of 153,600 acres, or 240 square miles. The Santa Clara subbasin is bound on the east by the Diablo Mountain Range, the west by the Santa Cruz Mountains, on the north by the San Francisquito Creek, and on the south by the groundwater divide near Morgan Hill (DWR 2016).

Calabazas Creek is located within Valley Water's West Side Recharge System, which contains several its managed groundwater recharge facilities. Valley Water's managed recharge program uses runoff captured in local reservoirs and imported water to recharge groundwater via recharge ponds. The West Side Recharge System has a recharge capacity of about 15,000 acre-feet per year and recharges the Santa Clara Plain. Calabazas Creek has a recharge capacity of 2,600 acre-feet per year (Valley Water 2016).

Flooding

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map, the Project area is located in a Special Flood Hazard Area subject to inundation by the 1% annual chance flood (FEMA 2009). Specifically, the Project area is in Floodway Area Zone AE, which is a regulatory floodway. Regulatory floodways are channels and adjacent areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. Outside the Project area, there residential areas and Creekside Park are not considered Special Flood Hazard Areas, as they exhibit a less than 0.2% annual chance of flood.

Discussion

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

Activities required to complete the Project include dewatering, clearing and grubbing of eroding bank surfaces, excavation of banks to install riprap, placement riprap to protect banks, and installation of sheet pile metal walls to protect banks. The Project would result in approximately 0.02 acre of fill in Calabazas Creek from placement of half-ton riprap along the channel toe. These activities have the potential to temporarily expose soils to erosion and to mobilize sediments in stormwater. Additionally, hazardous materials such as fuels, oils, grease, and lubricants from construction equipment could be accidentally released during construction. Accidental discharge of these materials could adversely affect water quality and/or result in violation of water quality standards.

Removal of trees and understory vegetation to complete the work could also contribute to the potential for discharge of sediment laden runoff. However, any exposed slopes or substrates would be hydroseeded or revegetated to ensure the surfaces remain stable and downstream water quality impacts do not occur.

While work is anticipated to occur when the creek is dry, there is a possibility that in-channel pools or minor flows would be encountered. To ensure flows do not enter the work area, cofferdams would be constructed upstream of the work area and water would be pumped through a diversion pipe to a discharge location downstream of the work area. Any dewatering discharges would occur onto areas with energy dissipation to prevent erosion or increases to downstream turbidity. The cofferdams would be constructed of gravel bags lined with a Visqueen plastic sheeting. The area of dewatering and location of cofferdams would be limited to the minimum amount necessary to complete the work, depending on the sites under construction and the construction year. Construction vehicles and equipment would only enter the Project area after it is completely dry, thereby avoiding potential impacts from sedimentation or increases to downstream turbidity.

Erosion and sediment control BMPs WQ-1 through WQ-9 as described in **Table 2-4 (Best Management Practices)** would be implemented to protect water quality. These include BMPs associated with sediment handling, erosion prevention, control of discharges and site management and clean up. In addition, Valley Water would implement BMPs HM-5, HM-6, and HM-7, which would prevent or minimize the potential for discharge of hazardous materials that would affect water quality.

The NPDES Construction General Permit (Order 2009-009-DWQ) requires construction sites over 1 acre that do not qualify for a waiver to prepare and implement a SWPPP. As the construction would exceed 1 acre of ground disturbance, Valley Water would submit Permit Registration Documents (PRDs) to obtain coverage under the NPDES General Permit prior to commencement of construction activities. PRDs are submitted in the Storm Water Multi-Application Report Tracking System and include the notice of intent (NOI), risk assessment, post-construction calculations, a site map, and the SWPPP. The SWPPP would incorporate BMPs to control sedimentation and runoff. A spill prevention and countermeasure plan would be incorporated into the SWPPP. 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.

Following construction, maintenance of the Project area would remain consistent with existing practice, though maintenance is expected to occur in less frequent intervals than present. The rehabilitated creek banks would protect the Project area and downstream reaches from increased sedimentation associated with bank erosion or failure, which would result in beneficial impacts on water quality.

Therefore, impacts on water quality would be **less than significant**.

b) Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?

Calabazas Creek is located within Valley Water's West Side Recharge System, which contains a number of its Managed Groundwater Recharge Facilities. Calabazas Creek, which is used for groundwater recharge, has a recharge capacity of 2,600 acre-feet per year. The

Project involves rehabilitation of eroding creek banks through installation of riprap and sheet pile walls. Dewatering would occur in a reach of Calabazas Creek that is typically dry during the period when construction would occur. Once completed, the Project would maintain the creek's existing groundwater recharge capacity. No groundwater supplies would be used or impacted by the Project. Therefore, the Project would have **no impact** on groundwater supplies and would not impede sustainable groundwater management of the basin.

c) Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in a substantial erosion or siltation on- or off- site;

During construction, the Project could result in temporary soil erosion on exposed or graded surfaces; however, the Project is intended to stabilize eroding creek banks through installation of riprap and sheet pile walls, which would substantially reduce the potential for erosion or siltation in the Project area after work is completed. Graded bank slopes above the riprap or sheet pile walls, such as at Sites 6, 7, 9 and 10, would be compacted and hydroseeded to reduce the potential for erosion and downstream siltation. The bank rehabilitation sites have been designed in a manner that maintains the existing course and contours of the stream to the maximum extent practicable, and in-channel siltation is not anticipated to occur. Furthermore, BMPs would be employed (i.e., BMPs WQ-2 [*Limit Impacts from Staging and Stockpiling Materials*], WQ-3 [*Use Seeding for Erosion Control, Weed Suppression, and Site Improvement*], and WQ-8 [*Prevent Stormwater Pollution*]) to minimize construction-related erosion. As described above, the Project would obtain coverage for discharge of stormwater from the construction area under the Construction General Permit (Order 2009-0009-DWQ) issued by SWRCB. The Construction General Permit requires preparation of a SWPPP by a qualified professional and implementation of the SWPPP throughout the construction period, which would ensure proper site drainage and prevent the erosion of soils and loss of topsoil. 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;

The Project would not substantially change the rate or amount of surface runoff. The Project would only negligibly increase the area of impervious surfaces in the Project area through installation of approximately 100 square feet of grouted riprap at Site 1, therefore there would not be a substantial increase in runoff into the creek or downstream reaches. The bank rehabilitation work would generally maintain existing surface runoff patterns (i.e., at sites where sheet pile walls are used) or restore surface runoff patterns to more natural conditions (i.e., where riprap is installed to reconstruct an erosional feature). At some locations, the creek banks above the bank repair would be set back (making the slope less steep) and hydroseeded or revegetated, thereby increasing the potential for infiltration and reducing the amount of surface water runoff. Overall, the Project would not result in a substantial change in the amount of runoff and on- or offsite flooding would not occur. Therefore, the 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; or

Runoff from the Project site would flow directly into Calabazas Creek, eventually discharging to the San Francisco Bay. Runoff would not enter a stormwater drainage system and the flood carrying capacity of Calabazas Creek would not be reduced. As described above, the Project would not provide substantial additional sources of polluted runoff, as the Project would stabilize eroding creek banks, hydroseed/revegetated any exposed soils, and implement BMPs to ensure there would not be substantial impacts on water quality, including from hazardous materials. Therefore, the impact on stormwater drainage systems and from polluted runoff would be **less than significant**.

iv) Impede or redirect flood flows?

The purpose of the Project is to, in part, ensure that Calabazas Creek continues to function as a flood control facility. While the creek is anticipated to be dry during construction, an appropriately sized dewatering system would be installed, thereby ensuring flood flows are not impeded. The flood control capacity of Calabazas Creek would be unchanged once the Project is complete. The Project would protect eroding creek banks or restore them to more natural conditions, which would not alter or redirect flood flows. Therefore, the impact would be **less than significant**.

d) Would the Project, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?

The Project area is in a special flood hazard zone according to FEMA. While the Project area is anticipated to be dry during construction, an appropriately sized dewatering system would be installed, thereby avoiding the risk of release of pollutants from Project inundation. Furthermore, BMPs would be employed to ensure the risk of pollutant release is minimized to the maximum extent practicable during construction. Applicable BMPs include HM-4 (Ensure Proper Hazardous Materials Management), HM-5 (Utilize Spill Prevention Measures), and WQ-9 (Prevent Water Pollution). A SWPPP would also be developed and the Project would comply with all measures in the Project's permits, including measures intended to prevent release of pollutants.

Following the completion of construction, the rehabilitated creek banks would not create a risk of pollutant release as these features do not contain pollutants in substantial amounts. Sediments would be less likely to enter waterways through erosion as the Project would repair erosional features. Therefore, the impact would be **less than significant**.

e) Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The Project would not conflict with the Basin Plan for the San Francisco Bay Region (RWQCB 2018), as the Project would not impact the beneficial uses identified for Calabazas Creek including agricultural supply, groundwater recharge, cold freshwater habitat, warm freshwater habitat, wildlife habitat, water contact recreation, and non-contact water recreation. The Project would not impact groundwater and therefore would not conflict with the groundwater management in the Santa Clara Subbasin (Basin 2-009.02), which is managed by Valley Water as a Groundwater Sustainability Agency under the Sustainable Groundwater Management Act. **No impact** would occur.

Land Use and Planning

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulatory Setting

State

All cities and counties are required by the State to adopt a general plan establishing goals and policies for long-term development, protection from environmental hazards, and conservation of identified natural resources (California Government Code Section 65300).

Government Code Section 65302 lists seven elements or chapters that cities and counties must include in their general plans: land use, circulation, housing, conservation, open space, noise, and safety. The land use element typically has the broadest scope of the mandatory general plan elements. This central element describes the desired distribution, location, and extent of the jurisdiction's land uses. The City of Cupertino General Plan is discussed below.

Local

General plans lay out the pattern of future residential, commercial, industrial, agricultural, open space, and recreational land uses within a community. To facilitate implementation of planned growth patterns, general plans typically also include goals and/or policies addressing the coordination of land use patterns with the development and maintenance of infrastructure facilities and utilities. Local jurisdictions implement their general plans by adopting zoning, grading, and other ordinances. Zoning identifies the specific types of land uses that are allowed on a given site and establishes the standards that would be imposed on new development.

Updated in 2015, the City of Cupertino General Plan provides a vision of the City that "aspires to be a balanced community with quiet and attractive residential neighborhoods; exemplary parks and schools; accessible open space areas, hillsides and creeks; and a vibrant, mixed-use "Heart of the City"" (City of Cupertino 2015a). The General Plan is the foundation for planning in Cupertino, and all physical development must be consistent with it.

Existing Conditions

The Project area is located in the Calabazas Creek corridor between Miller Avenue and Bollinger Road in the City of Cupertino. The Project area is bordered to the north by Miller Avenue, to the south by Bollinger Road, to the west by single family residential, and to the east by single family residential and Creekside Park. The City of Cupertino General Plan designates the surrounding land uses as low density residential (1 – 5 dwelling units [DU]/acre), low-medium density residential (5-10 DU/acre), medium density residential (10 – 20 DU/acre), and parks and open space (Creekside Park). The City's Zoning Code assigns the area the designations of single family residential, open space/park, residential duplex, and multiple family residential (City of

Cupertino 2019b). The Calabazas Creek corridor is not called out separately in the City General Plan or zoning designations. The bank rehabilitation work would occur on property owned by Valley Water, though limited construction access/staging easements may be required from the City of Cupertino for access to the downstream access ramp through Creekside Park and staging in a small portion of the park near the access ramp.

Discussion

a) Would the Project physically divide an established community?

The physical division of an established community typically refers to the construction of a physical feature (such as an interstate highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community or between a community and an outlying area. The Project would rehabilitate the banks of Calabazas Creek in an established creek and riparian corridor. The Project does not involve construction of any new facilities or structures which could obstruct existing roads, streets, or paths. One pedestrian path crosses the Project area between Sites 2 and 3, but this path would not be affected by construction activities. Therefore, the Project would not divide an established community. **No impact** would occur.

b) Would the Project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The Project would not result in a change from the existing land use in the Project area, and the Project would result in **no impact**.

Mineral Resources

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulatory Setting

The Surface Mining and Reclamation Act of 1975 (PRC Sections 2710-2796) provides a comprehensive surface mining and reclamation policy with the regulation of surface mining operations to ensure that adverse environmental impacts are minimized, and mined lands are reclaimed to a usable condition. The Act also encourages the production, conservation, and protection of the State's mineral resources.

The California Geological Survey has classified lands within the San Francisco-Monterey Bay region into Mineral Resource Zones (MRZs). The MRZ classifications are defined as follows.

- MRZ-1: Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- MRZ-2: Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists.
- MRZ-3: Areas containing mineral deposits, the significance of which cannot be evaluated from available data.
- MRZ-4: Areas where available information is inadequate for assignment into any other MRZ.

The Conservation Element of the City of Cupertino's General Plan does not identify any known mineral resources in the Project area (City of Cupertino 2015a). An area designated as MRZ-3 is located approximately 0.75-mile northwest of the Project area, but this area is categorized as urban/suburban development unsuitable for mineral extraction. Therefore, policies related to mineral resources in the General Plan are not applicable to the Project.

Existing Conditions

Minerals are any naturally occurring chemical element or compound, or groups of elements and compounds, formed from inorganic processes and organic substances including, but not limited to, coal, peat and oil-bearing rock, but excluding geothermal resources, natural gas and petroleum. Rock, sand, gravel and earth are also considered minerals by the Department of Conservation when extracted by surface mining operations. The USGS Mineral Resources Data System does not identify any mineral resources in the Project area. According to the results of this database search, the nearest area of mineral significance is located 2.5 miles west of the Project area at the Stevens Creek Quarry. Based on the MRZ mapping, it is unlikely that the Project area would contain valuable or otherwise important mineral resources.

Discussion

a) Would the Project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?

The Project would involve rehabilitation of eroding creek banks with the use of riprap and sheet pile walls. Since the Project area does not contain any mineral resources, the proposed activities would not 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. Therefore, the Project would have **no impact** on mineral resources.

b) Would the Project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

The Project does not occur in areas delineated as locally important mineral resource recovery sites in a local general plan, specific plan, or other land use plan within the Project area. Therefore, the Project would have **no impact**.

Noise

Would the Project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive ground borne vibration or ground borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulatory Setting

California Noise Control Act

The California Noise Control Act was enacted in 1973. In preparing its General Plan noise element, a city or county must identify local noise sources and analyze and quantify to the extent practicable current and projected noise levels from various sources, including highways and freeways; passenger and freight railroad operations; ground rapid transit systems; commercial, general, and military aviation and airport operations; and other stationary ground noise sources.

The State of California General Plan Guidelines provides noise compatibility guidelines for land use planning according to the existing community noise level; however, these guidelines offer no information regarding construction noise. The State has also published its Model Community Noise Ordinance, which provides guidance to cities and counties on how to develop a community noise ordinance. These guidelines include recommended limits on construction noise levels. However, these are only guidelines and are not enforceable.

City of Cupertino General Plan

The City of Cupertino General Plan's Health and Safety Element contains an overview of the most significant sources of noise within the city, the most prominent of which is traffic noise. Non-transportation noise sources mentioned included stationary equipment and construction activity, both of which are addressed in the City's Municipal Code (described below). The General Plan also includes guidance on how to plan land use within the city in a way that minimizes harmful and bothersome exposure to noise. Relevant General Plan policies on noise are listed in **Table 4-9**.

Table 4-9. City of Cupertino General Plan Policies Related to Noise

Policy	Policy Description
HS-8.2: Building and Site Design	Minimize noise impacts through appropriate building and site design... Require analysis and implementation of techniques to control the effects of noise from industrial equipment and processes for projects near low-intensity residential uses.
HS-8.3: Construction and Maintenance Activities	Regulate construction and maintenance activities. Establish and enforce reasonable allowable periods of the day, during weekdays, weekends and holidays for construction activities. Require construction contractors to use the best available technology to minimize excessive noise and vibration from construction equipment such as pile drivers, jack hammers, and vibratory rollers.

Source: City of Cupertino 2015a

City of Cupertino Municipal Code Noise Ordinance

The Cupertino Municipal Code, Title 10, outlines the maximum noise levels on receiving properties based upon land use types. This section of the Cupertino Municipal Code also sets guidelines for appropriate construction noise levels and limits construction hours to weekdays during daytime hours (City of Cupertino 2002).

The city's rules on noise from grading, construction, and demolition are as follows:

"Grading, construction and demolition activities shall be allowed to exceed the noise limits of Section 10.48.040 during daytime hours; provided, that the equipment utilized has high-quality noise muffler and abatement devices installed and in good condition, and the activity meets one of the following two criteria:

1. No individual device produces a noise level more than eighty-seven decibels on the A-weighted scale (dBA) at a distance of twenty-five feet (7.5 meters); or
2. The noise level on any nearby property does not exceed eighty dBA." (City of Cupertino 2002)

Existing Conditions

Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, or sleep.

To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is generally an annoyance, while loudness can affect our ability to hear. Pitch is the number of complete vibrations, or cycles per second, of a wave resulting in the tone's range from high to low. Loudness is the strength of a sound that describes a noisy or quiet environment and is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves, combined with the reception characteristics of the human ear. Sound intensity refers to how hard the sound wave strikes an object, which in turn produces the sound's effect. This characteristic of sound can be measured precisely with instruments. The analysis of a project defines the noise environment of the Project area in terms of sound intensity and the Project's effect on adjacent sensitive land uses.

Measurement of Sound

Sound intensity is measured through the A-weighted scale to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high

frequencies of sound similar to the human ear's de-emphasis of these frequencies. Unlike linear units (e.g., inches or pounds), decibels are measured on a logarithmic scale representing points on a sharply rising curve.

For example, 10 dB are 10 times more intense than 1 dB; 20 dB are 100 times more intense than 1 dB; and 30 dB are 1,000 times more intense than 1 dB. Thirty decibels (30 dB) represent 1,000 times as much acoustic energy as 1 dB. The decibel scale increases as the square of the change, representing the sound pressure energy. A sound as soft as human breathing is about 10 times greater than 0 dB. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. A 10 dB increase in sound level is perceived by the human ear as only a doubling of the loudness of the sound. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very loud).

Sound levels are generated from a source, and their decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. For a single point source, sound levels decrease approximately 6 dBA for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by stationary equipment. If noise is produced by a line source (e.g., highway traffic or railroad operations), the sound decreases 3 dBA for each doubling of distance in a hard-site environment. Line source (noise in a relatively flat environment with absorptive vegetation) decreases 4.5 dBA for each doubling of distance.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. Equivalent continuous sound level (L_{eq}) is the total sound energy of time varying noise over a sample period. However, the predominant rating scales for communities in the State of California are the L_{eq} and Community Noise Equivalent Level (CNEL) or the day-night average level (DNL) based on dBA. CNEL is the time varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7 p.m. to 10 p.m. (defined as relaxation hours) and a 10 dBA weighting factor applied to noise occurring from 10 p.m. to 7 a.m. (defined as sleeping hours). DNL is similar to the CNEL scale, but without the adjustment for events occurring during the evening hours. CNEL and DNL are within 1 dBA of each other and are normally exchangeable.

It should also be noted that DNL is the standard federal metric for determining cumulative exposure of individuals to noise. DNL is the 24-hour average sound level in decibels. The average is derived from noise measurements taken during a 24-hour period. DNL adds a 10-dB noise penalty to each aircraft operation occurring during nighttime hours (10 p.m. to 7 a.m.). DNL includes that penalty to compensate for people's heightened sensitivity to noise during this period.

Other noise rating scales of importance when assessing the annoyance factor include the maximum noise level (L_{max}), which is the highest exponential time averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis for short-term noise impacts are specified in terms of maximum levels denoted by L_{max} , which reflects peak operating conditions and addresses the annoying aspects of intermittent noise. It is often used together with another noise scale, or noise standards in terms of percentile noise levels, in noise ordinances for enforcement purposes. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level. Half of the time the noise level exceeds this level, and half of the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, the L_{eq} and L_{50} are approximately the same.

Noise impacts can be described in three categories. The first category includes audible impacts that refer to increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3.0 dB or greater since this level has been found to be barely perceptible in exterior environments. The second category, potentially audible, refers to a change in the noise level between 1.0 and 3.0 dB. This range of noise levels has been found to be noticeable only in laboratory environments. The last category includes changes in noise level of less than 1.0 dB, which are inaudible to the human ear. Only audible changes in existing ambient or background noise levels are considered potentially significant.

Surrounding Land Uses

The Project area is located in the Calabazas Creek corridor between Miller Avenue and Bollinger Road. The Project sites are bordered to the north by Miller Avenue, to the south by Bollinger Road, to the west by single family residential, and to the east by single family residential and Creekside Park. The City of Cupertino General Plan designates the surrounding land uses as low density residential, low-medium density residential, medium density residential, and parks and open space (Creekside Park). The Project area is not located within an airport noise impact zone.

Existing Noise Levels

The existing ambient noise environment in the Project area is characteristic of a suburban residential environment. Principal noise sources in the project vicinity include local and regional street traffic and lawn care equipment (e.g., lawn mowers, chain saws, leaf blowers, and “weed whackers”), along with occasional dog barks, fire and police sirens, and aircraft. Residences adjacent to parks also experience noise generated by athletic events. Short-term noise monitoring data from 2014 in the City of Cupertino’s General Plan in residential neighborhoods similar to the neighborhood surrounding the Project area revealed ambient noise levels between 58 and 70 dBA L_{eq} (City of Cupertino 2015a).

Sensitive Receptors

Noise-sensitive land uses generally include those uses where exposure to noise would result in adverse effects. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. A majority of the Project area occurs adjacent to residential areas, primarily in the form of single-family residential homes with backyards abutting the Project area. Creekside Park supports both active and passive recreation and is not considered a noise-sensitive receptor.

Discussion

The Project would not result in an increase in operational noise impacts over baseline conditions, as maintenance of the Project area would be similar or less frequent than existing conditions. Maintenance of the bank rehabilitation sites, should any be required, would be minor and infrequent. Therefore, this section only discusses construction-related noise.

- a) Would the Project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

Construction of the Project would require the use of heavy equipment that would temporarily increase noise levels at properties adjacent to the work sites. **Table 4-10** presents typical noise levels for various types of construction equipment that would be utilized. The noise

levels listed represent the A-weighted L_{max} , measured at a distance of 25 feet from the construction equipment. A majority of the construction equipment listed in **Table 4-10** is below the City's Noise Ordinance threshold of 87 dBA at 25 feet. Most construction equipment that exceeds these thresholds (e.g., chainsaws, concrete saws, and jackhammers) would be used less frequently and only at certain work sites. Bulldozers and graders, which also exceed the equipment noise thresholds, would only operate in the channel bottom and thus noise from this equipment would be further from adjacent properties and be naturally screened by the channel banks. While the nearest property lines are close to the work areas in many locations, ranging from 1 foot to 25 feet away (or averaging 12 feet across all sites), work in each specific area would generally be short in duration and most work would occur further from the property line, allowing for greater sound attenuation. Furthermore, due to the creek incision, work would generally be conducted below the top of bank (up to 20 feet below the top of bank, depending on location), which would provide a natural sound screen on both sides of the work area.

Table 4-10. Typical Maximum Noise Emission Levels by Construction Equipment

Equipment	Typical Maximum Noise Level (dBA) 25 feet from Source ¹	Work Site Where Equipment Utilized
Backhoe	84	All
Bulldozer	88	All ²
Chainsaw	90	6 – 10 ³
Compressor (air)	84	All
Concrete mixer truck	85	1 and 2
Concrete pump truck	87	1 and 2
Concrete saw	96	1 and 2
Crane	87	5, 8, 9, and 10
Dump truck	82	All
Excavator	87	All
Flatbed truck	80	All
Generator	79	All
Grader	91	All ²
Jackhammer	95	1 and 2
Loader	85	All
Pumps	87	All
Roller	86	All
Sheet piling machine ⁴	69	5, 8, 9, and 10
Welder	80	5, 8, 9, and 10

Source: Federal Highway Administration 2006

Notes:

¹ Values in bold exceed City of Cupertino Noise Ordinance thresholds.

² Bulldozers and graders would be used exclusively in the channel bottom, which would occur a minimum of 25 feet from the nearest properties (typically further) and would have the benefit of natural sound screening from the creek banks.

³ Chainsaws would be used for very short durations during tree removals.

Equipment	Typical Maximum Noise Level (dBA) 25 feet from Source ¹	Work Site Where Equipment Utilized
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⁴ The Giken silent sheet piling machine would be used to avoid impacts from pile driving (far greater noise impacts). The machine hydraulically presses sheet piles into the substrate.

Despite these factors, it is possible that construction activities would exceed the noise thresholds in the City of Cupertino's noise ordinance, which prohibits any single piece of construction equipment from exceeding 87 dBA at 25 feet or noise at any nearby property exceeding 80 dBA. Therefore, the impact of temporary construction noise is potentially significant and **MM-NV-1** through **MM-NV-4** are proposed to address the temporary noise impact.

MM-NV-1: Provide Advance Notification of Construction Schedule and 24-hour Hotline to Residents

Valley Water will provide advance written notification of the proposed construction activities to all adjacent residences and posted at Creekside Park at least 30 days prior to the start of construction. Notification shall include a brief overview of the Project and its purpose, as well as the proposed construction activities and schedule. It shall also include the name and contact information of a Valley Water representative responsible for ensuring that reasonable measures are implemented to address the problem (the construction noise disturbance coordinator; see Mitigation Measure NV-3).

MM-NV-2: Implement Work Site Noise Control Measures

To reduce noise impacts, Valley Water will require all contractors to adhere to the following measures. Valley Water will be responsible for ensuring implementation.

- All construction equipment will be equipped with manufacturer's standard noise control devices or with equally effective replacement devices consistent with manufacturer specifications.
- Stationary noise-generating equipment will be located as far as possible from sensitive receptors, and, if feasible, will be shielded by placement of other equipment or construction materials storage.
- Impact tools (e.g., jackhammers) will be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust will be used; this muffler can lower noise levels from the exhaust. External jackets on the tools themselves will be used where feasible. Quieter procedures, such as use of drills rather than impact tools, will be used whenever feasible.

MM-NV-3: Designate Noise Disturbance Coordinator to Address Resident Concerns

Valley Water will designate a representative to act as construction noise disturbance coordinator, responsible for resolving construction noise concerns. The disturbance coordinator's name and contact information will be included in the preconstruction notices sent to adjacent residents (see Mitigation Measure NV-1). They will be available during all construction hours to monitor and respond to concerns. In the event a noise complaint is received, she or he will be responsible for determining the cause of the complaint and ensuring that all reasonable measures are implemented to address the problem.

MM-NV-4: Install Temporary Noise Barriers

Valley Water or its contractors will be responsible for monitoring noise from construction activities to ensure that noise at the nearest property line does not exceed 80 dBA, consistent with the City of Cupertino Noise Ordinance. If noise monitoring determines that the 80-dBA threshold is exceeded at any adjacent property, Valley Water will install temporary noise barriers, where feasible, to reduce noise levels below the construction noise standard. Work responsible for the disturbance will be suspended or modified until barriers have been installed. Valley Water will include a construction bid item to provide noise barriers on-site and install noise barriers immediately in response to noise concerns. Following are the relevant specifications.

- The barrier will be 10 feet tall. Barriers will surround the work area to block the line of sight for all diesel-powered equipment on the ground, as viewed from any private residence or any building.
- The barrier will be constructed of heavyweight plywood (at least 5/8-inch-thick) or other material providing a Sound Transmission Classification of at least 25 dBA. (As above, note that 5/8 inch is sufficiently thick to provide optimal noise buffering; increasing the thickness of the barrier above 5/8 inch would not provide a noticeable improvement in noise reduction.)
- The barrier will be constructed with no gaps or holes that would allow noise to transmit through the barrier.
- To minimize reflection of noise toward workers at the construction site, the surface of the barrier facing the workers will be covered with sound-absorbing material that meets a Noise Reduction Coefficient of at least 0.70.

MM-NV-1 through **MM-NV-4** require advanced notification to adjacent residences of upcoming construction, implementation of noise control measures, designation of a noise disturbance coordinator for adjacent residents, and installation of temporary noise barriers to reduce noise levels below the City of Cupertino Noise Ordinance thresholds, should the threshold be exceeded. Therefore, with implementation of these mitigation measures, impacts from noise in the Project vicinity would be reduced to **less than significant** level.

b) Would the Project result in generation of excessive ground borne vibration or ground borne noise levels?

Vibration refers to groundborne noise and perceptible motion. Groundborne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors, where the motion may be discernable. However, without the effects associated with the shaking of a building, there is less adverse reaction.

The Project would only use heavy equipment capable of generating disturbance from ground borne vibration for short periods of time and/or in discrete locations. In general, the Project would not use heavy equipment that would generate discernable vibrations but would instead use smaller construction equipment including loaders and excavators. Whenever possible, techniques that reduce the amount of ground borne vibration and noise would be used. For example, the Project avoids use of impact or vibratory pile driving to construct sheet pile walls, and instead uses a sheet piling system that hydraulically presses sheet piles into the substrate. While truck travel would occur with the Project, the rubber tires and suspension systems of trucks provide vibration isolation and it is unusual for trucks to cause ground-borne

noise or vibration problems. **Table 4-11** summarizes the typical vibration source levels for construction equipment that could be used on site.

Table 4-11. Typical Vibration Source Levels by Construction Equipment

Equipment	PPV ¹ at 25 feet (in/sec)
Large Bulldozer	0.089
Small Bulldozer	0.003
Caisson drilling	0.089
Jackhammer	0.035
Loaded trucks	0.076

Source: Federal Highway Administration 2006

¹ Peak particle velocity

The U.S. Department of Transportation (U.S. DOT) published criteria for the protection of fragile buildings from vibration, which established a threshold of 0.2 inches per second peak particle velocity (PPV). As shown in **Table 4-11**, vibration generation from heavy equipment used in Project construction at 25 feet would be less than 0.1 inches per second PPV, which is substantially less than the U.S. DOT criteria. Furthermore, this heavy equipment would generally be used in the bottom of the channel or mid-bank, and the distances to the nearest occupied buildings would typically be 50 feet or greater. At Sites 1 and 2, a jackhammer may be used for a brief period at approximately 25 to 45 feet from the nearest structures, but this activity is not expected to result in excessive ground borne vibration that significantly impact residents or damage structures.

Therefore, the impact from ground borne vibration or ground borne noise would be **less than significant**.

- c) **For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?**

The Project area is located approximately 5 miles southwest of the Norman Y. Mineta San Jose International Airport. The Project area does not fall within the airport influence area for any public airports. The Project would not include development of any new commercial or residential facilities. **No impact** would occur.

Population and Housing

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulatory Setting

The City of Cupertino's General Plan (City of Cupertino 2015a) guides development and land use in the Project vicinity. The General Plan was used in preparation of this analysis as the basis against which to evaluate potential population and housing impacts.

Existing Conditions

The Project area is surrounded by areas zoned for residential use, but there is no housing in the Project area itself.

Discussion

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

The Project would not include any new housing, commercial or industrial space, result in the conversion of adjacent land uses, or provide access to previously inaccessible areas. The Project would rehabilitate and protect eroding creek banks, and would not directly or indirectly induce population growth. Therefore, the Project would have **no impact**.

- b) **Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?**

The Project would not include the demolition of existing housing or displace existing housing or residents which would necessitate the construction of replacement housing elsewhere. Therefore, the Project would have **no impact**.

Public Services

Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physical altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulatory Setting

Fire Services

Fire protection services in Cupertino are provided by the Santa Clara County Fire Department (SCCFD). The SCCFD includes 15 fire stations covering 128 square miles and a population of over 226,700. The closest fire station to the project site is the Cupertino Station, which is located at 20215 Stevens Creek Boulevard in Cupertino, approximately 1 mile from the Project area.

Police Services

Police protection services in Cupertino are provided by the Santa Clara County Sheriff's Office. The nearest sheriff's office to the Project area is the West Valley Division Substation, which has 87 personnel assigned to the division and is located at 1601 S. De Anza Boulevard in Cupertino, approximately 1.25 mile from the Project area.

Parks

California Public Park Preservation Act

The California Public Park Preservation Act of 1974 provides that a public agency that acquires public parkland for non-park use must either pay compensation that is sufficient to acquire substantially equivalent substitute parkland or provide substitute parkland of comparable characteristics. Accordingly, in the event that parkland and facilities are acquired, the agency is required to acquire substitute parkland and facilities. If less than 10 percent but not more than 1 acre of the parkland is acquired, the agency may instead improve the unacquired portion of the parkland and facilities.

Quimby Act

The Quimby Act authorizes the legislative body of a city or county to require the dedication of land or to impose fees for park or recreational purposes as a condition of the approval of a tentative or parcel subdivision map, if specified requirements are met. The dedication of land, or the payment of fees, or both, shall not exceed the proportionate amount necessary to provide three acres of park area per 1,000 persons residing within a subdivision subject to this section, unless the

amount of existing neighborhood and community park area, as calculated pursuant to this subdivision, exceeds that limit, in which case the legislative body may adopt the calculated amount as a higher standard not to exceed five acres per 1,000 persons residing within a subdivision subject to this section.

Existing Conditions

Fire Protection

No facilities for fire protection exist in the Project area. SCCFD provides fire services to the Project area and the nearest fire station is the Cupertino Station, which is located at 20215 Stevens Creek Boulevard in Cupertino, approximately 1 mile from the Project area.

Police Protection

No facilities for police protection exist in the Project area. The Santa Clara County Sheriff's Office provides police protection to the Project area and the nearest sheriff's office is the West Valley Division Substation, located at 1601 S. De Anza Boulevard in Cupertino, approximately 1.25 mile from the Project area.

Parks

According to the City of Cupertino General Plan, Cupertino currently has approximately 165 acres of City-owned public parks and open space areas (City of Cupertino 2015a). The Project area occurs adjacent to the west side of Creekside Park, which includes 13 acres of athletic fields, basketball courts, play areas, restrooms, and parking. Project staging would occur in Creekside Park in a 3,400 square foot area (120 feet long and 28 feet wide) in the northwest corner of the park. Creekside Park is accessed via Miller Avenue to the east. Creekside Trail, which runs along Regnart Creek for approximately 300 feet to East Estates Drive, crosses over Calabazas Creek and the Project area into Creekside Park from the west.

Schools

The Cupertino Union School District, Fremont Union, and Santa Clara Unified School District serve the Project area with a total of 32 elementary, middle, and high schools. Three schools occur approximately 0.2- to 0.3-mile east of the Project area: Cupertino High School, Sedgwick Elementary, and Hyde Middle School.

Libraries

The Cupertino Library, operated by the Santa Clara County Library under the Joint Powers Authority Agreement, is located approximately 0.6 mile west of the Project area at 10800 Torre Avenue.

Discussion

Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physical altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

a, b) Fire and police protection?

Project activities would not contribute to increased demand for fire or police protection services, since the Project would not contribute to population growth or other long-term land use modifications. Therefore, the Project would have **no impact** to fire and police protection services.

c) Schools?

No schools are located within the Project area and no schools would be affected by the Project. The Project would not contribute to population growth and the demand for schools would not increase. Therefore, there would be **no impact** on schools.

d) Parks?

The Project area is located adjacent to Creekside Park, which comprises 13 acres of athletic fields, basketball courts, play areas, restrooms, and parking. Project staging would occur in a 3,400 square foot area (120 feet long and 28 feet wide) in the northwest corner of the park. The staging area would be located on a grassy area with a trail/access road occurring on the north side of the staging area, and the athletic fields on the south side of the staging area. The staging area would not occur within the field of play (i.e., “out of bounds”) for activities that use the fields. Other than the 3,400 square feet for the staging area, there would be no loss of use of the remaining 6.75 acres of athletic fields in the park. Furthermore, the staging area would only be present from April 15 to October 15 each year.

Access to the downstream access ramp would also occur via a road in Creekside Park in the northwest corner of the park, between athletic fields and the creek. While this access route may be used during any period of construction, it would primarily be used during the first year of construction at Sites 1 through 7. Furthermore, given the construction window, any disruptions would be limited to weekdays when fewer park users are present. Vehicle and equipment access through the park is not expected to prevent use of the park. Valley Water would obtain a temporary construction easement from the City for staging and access, which might include restrictions imposed by the City.

It is possible that during construction, park users would use other nearby parks to avoid construction noise, particularly during work at Sites 2 and 3 which occur adjacent to the Park. However, this impact would be temporary and would not require the construction of additional park facilities. The Project would not result in a need for additional park space, as the park would continue to maintain its utility during all phases of construction and operation. The impact on parks would be **less than significant**.

e) Other public services?

Since the activity would not contribute to population growth or other long-term land use modifications, the Project is not anticipated to affect other public facilities. Therefore, **no impact** would occur.

Recreation

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulatory Setting

See *Regulatory Framework* under *Public Services*, for a description of regulations related to parks and recreational facilities.

Existing Conditions

As indicated above, Cupertino has approximately 165 acres of City-owned public parks and open space areas. Within the City there are 13 neighborhood parks, 15 community parks, and 11 semi-private residential parks and open space areas. The Project area occurs adjacent to the west side of Creekside Park, which includes 13 acres of athletic fields, basketball courts, play areas, restrooms, and parking. In addition, there are many acres of open space preserves in the vicinity that are operated and maintained by regional agencies and districts.

The City of Cupertino General Plan identifies an opportunity for an extension of the Calabazas Creek Trail that would connect the South Vallco Planning Area to Cupertino High School and Creekside Park (City of Cupertino 2015a). In the project area, this trail extension would potentially run parallel to the east side of the creek between Miller Avenue and the Creekside Park pedestrian bridge. The Creekside Park pedestrian bridge is an approximately 300-foot-long pedestrian pathway that spans Calabazas Creek between Sites 2 and 3, connecting Creekside Park to East Estates Drive, running along the south side of Regnart Creek.

Discussion

a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

The Project would not induce population growth, and demand for existing neighborhood and regional parks would not increase after completion of the Project. However, there could be a temporary increase in demand for parks or athletic facilities in the Project vicinity if users of Creekside Park elect to use other parks during construction.

Creekside Park, which comprises 13 acres of athletic fields, basketball courts, play areas, restrooms, and parking, is not expected to be impacted such that disruptions from construction render the park unusable. Project staging would occur in a 3,400 square foot area (120 feet long and 28 feet wide) in the northwest corner of the park. The staging area would be located on a grassy area with a trail/access road occurring on the north side of the staging area, and

the athletic fields on the south side of the staging area. The staging area would not occur within the field of play (i.e., “out of bounds”) for activities that use the fields. Other than the 3,400 square feet for the staging area, there would be no loss of use of the remaining 6.75 acres of athletic fields in the park. Furthermore, the staging area would only be present from April 15 to October 15 each year.

Access to the downstream access ramp would also occur through the northwest corner of the park, between athletic fields and the creek. While this access route may be used during any period of construction, it would primarily be used during the first year of construction at Sites 1 through 7. Vehicle and equipment access through the park are not expected to prevent use of the park. Valley Water would obtain a temporary construction easement from the City which might include staging access restrictions. Access and use of the remainder of the park would not be impacted. Furthermore, given the construction window, any disruptions would be limited to weekdays when fewer park users are present. The temporary construction impacts on Creekside Park 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 is **less than significant**.

b) Would the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

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**.

Transportation

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulatory Setting

State

On September 27, 2013, Senate Bill (SB) 743 was signed into law. The legislature found that with adoption of the Sustainable Communities and Climate Protection Act of 2008 (SB 375), the State had signaled its commitment to encourage land use and transportation planning decisions and investments that reduce VMT and thereby contribute to the reduction of GHG emissions, as required by the California Global Warming Solutions Act of 2006 (AB 32).

SB 743 started a process that could fundamentally change transportation impact analyses as part of CEQA compliance. These changes will include the elimination of auto delay, level of service (LOS), and similar measures of vehicular capacity or traffic congestion as the basis for determining the significant impacts of land use projects under CEQA. As part of the new CEQA Guidelines, the new criteria “shall promote the reduction of GHG emissions, the development of multimodal transportation networks, and a diversity of land uses.” The Office of Planning and Research developed alternative metrics and thresholds based on VMT. Amendments to the CEQA Guidelines were certified by the Secretary of the Natural Resources Agency in December 2018, and automobile delay, as described solely by LOS or of similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment. There is an opt-in period until July 1, 2020, for agencies to adopt new VMT-based criteria.

Local and Regional Plans

The City of Cupertino General Plan contains goals and policies related to transportation. **Table 4-12** lists the specific transportation policies relevant to the Project.

Table 4-12. Cupertino General Plan Transportation Policies Relevant to the Project

Policy ID	Policy
M-1.2	<p>Transportation Impact Analysis. Participate in the development of new multi-modal analysis methods and impact thresholds as required by SB 743. However, until such impact thresholds are developed, continue to optimize mobility for all modes of transportation while striving to maintain the following intersection Levels of Service (LOS) at a.m. and p.m. peak traffic hours:</p> <ul style="list-style-type: none"> • Major intersections: LOS D • Stevens Creek Boulevard and De • Anza Boulevard: LOS E+ • Stevens Creek Boulevard and • Stelling Road: LOS E+ • De Anza Boulevard and Bollinger • Road: LOS E+
M-2.4	<p>Community Impacts. Reduce traffic impacts and support alternative modes of transportation rather than constructing barriers to mobility. Do not close streets unless there is a demonstrated safety or over-whelming through traffic problem and there are no acceptable alternatives since street closures move the problem from one street to another.</p>
M-3.3	<p>Pedestrian and Bicycle Crossings. Enhance pedestrian and bicycle crossings and pathways at key locations across physical barriers such as creeks, highways and road barriers.</p>

Sources: Santa Clara County 1994; City of Cupertino 2015a

Chapter 11.32, *Truck Traffic Routes*, of the City of Cupertino's Municipal Code establishes rules related to truck travel through the City. These rules include stipulations about what routes are appropriate for trucks (defined as any vehicle exceeding a gross weight of 3 tons) to take when traveling through Cupertino (City of Cupertino 2020).

Existing Conditions

Cupertino is accessible from Interstate 280 and State Route 85, as well as Lawrence Expressway and Foothill Expressway. Major arterial roads in Cupertino that are identified as truck routes include Stevens Creek Boulevard, Homestead Road, De Anza Boulevard, and Wolfe Road. The Project area is bound by Miller Avenue to the north and Bollinger Road to the south, which are considered major collector streets. Both streets intersect the creek via vehicle and pedestrian bridges. Miller Avenue can be accessed from I-280 via North Wolfe Road; Bollinger Road can be accessed directly from De Anza Boulevard via SR-85. Access to the northern end of Project area would occur from an access ramp in northeastern corner of Creekside Park, which is entered via Miller Avenue. Access to the southern end of the Project area would occur from an access ramp located on Bollinger Road.

There is no pedestrian or bicycle access to the Project area, but a pedestrian bridge crosses over Calabazas Creek at the confluence with Regnart Creek. The bridge, part of the Creekside Trail, connects Creekside Park to East Estates Drive, approximately 300 feet west of the Project area. Creekside Park supports multiple walking paths adjacent to the Project area. Bicycle lanes are also present on Miller Avenue and Bollinger Road.

The City of Cupertino is serviced by the VTA, which operates a number of bus routes that run through Cupertino and neighboring municipalities. Light rail does not run through Cupertino, but bus routes provide connections to VTA's light rail system as well as other regional public transit networks.

Discussion

a) Would the Project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

The Project area does not include any publicly accessible roadways, public transit routes, or bicycle or pedestrian facilities. No alterations to existing roadways are proposed by the Project and there would be no impact to vehicle, bicycle, or pedestrian transportation networks or roadway configurations. The Project would be consistent with policies established by Santa Clara County and the City of Cupertino.

Construction activity associated with the Project would generate a short-term increase in vehicle trips from construction workers/vendors and haul trucks transporting materials to and from the Project area on nearby roadways (**Table 4-13**). It is anticipated that an average of 15 construction-related vehicle trips per day (these include worker/vendor vehicles and construction trucks) would occur throughout Project construction, though the average trips per day would increase to up to 19 trips per day during the bank rehabilitation phases (rather than site preparation and restoration). Access to the Project area would occur from Miller Avenue and Bollinger Road, both of which are considered major collector streets in the City of Cupertino General Plan (City of Cupertino 2015a). Miller Avenue would be accessed from I-280 via North Wolfe Road, and Bollinger Road would be accessed directly from De Anza Boulevard. North Wolfe Road and De Anza Boulevards are both major arterial roads identified to support truck traffic by the Cupertino Municipal Code. The Project would be consistent with the rules and regulations regarding truck use in the Cupertino Municipal Code.

Table 4-13. Estimated Construction-Related Vehicle Trips

Construction Year	Average Number of Worker/Vendor Trips per Day	Average Number of Haul Trips per Day	Total Average Trips per Day
Year 1	9	6	15
Year 2	9	6	15

Project-generated traffic would be temporary and therefore would not result in any long-term degradation in traffic operating conditions (i.e., permanent increases in congestion) on any roadway segments or intersections in the Project vicinity. The minimal number of vehicle trips would not substantially add to local congestion in the Project vicinity. Therefore, although Project-generated traffic would contribute to localized congestion near the Project area, impacts to the performance of the circulation system and travel demands would be minor, temporary, and short-term in nature.

Construction-related truck traffic during the AM (8:00 to 9:00 AM) and PM (4:00 to 6:00 PM) peak hours would coincide with peak-period traffic volumes on area roadways, and therefore would have the greatest potential to impede traffic flow. Project-related hauling and deliveries would be dispersed throughout the day, which would lessen the effect on peak-hour traffic on the roadway segments and intersections in the Project vicinity with the exception of worker commute trips, which would typically occur during the AM and PM peak hour.

Due to the minimal number of trips per day that the Project is expected to generate, and the temporary nature of the trips that would be generated, impacts would be **less than significant**.

b) Would the Project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

The Project would not conflict or be inconsistent with Section 15064.3 of the CEQA Guidelines, which allows various approaches to consider a Project's transportation impacts, including qualitative analysis. As described in a) above, the Project would only generate very small number of trips per day during the two construction seasons (12 total months). The Project would not permanently impact vehicle traffic in the Project vicinity, as the Project would not induce growth, result in land use changes, or permanently alter traffic circulation. Following Project construction, no additional maintenance would be required beyond what is already occurring. Therefore, the Project would not conflict with CEQA Guidelines Section 15064.3; the impact would be **less than significant**.

c) Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The Project would not include new design features (e.g., new facilities or obstructions within public roadways) or alterations of existing features (e.g., road realignment). No incompatible uses or hazardous design features are associated with operation or maintenance of the Project. However, construction of the Project would result in heavy vehicles and equipment accessing the Project area via local roadways, including Miller Avenue and Bollinger Road. The presence of large, slow-moving equipment among the general-purpose traffic on roadways in the Project area could result in temporary safety hazards. However, BMP TR-1 (*Incorporate Public Safety Measures*), which requires fencing, barriers, lights, flagging, guards and/or signs (as appropriate) to provide warning to the public of construction activities, would minimize the effects from construction traffic within the Project area, and traffic safety hazards would not be substantially increased. Therefore, the Project would result in a **less than significant** impact from an increase in traffic hazards.

d) Would the Project result in inadequate emergency access?

Emergency access to the Project area would be provided via two access points: the concrete ramp located on Bollinger Road and the earthen ramp located in the northwestern corner of Creekside Park. These access ramps would be available for emergency access during construction, in the unlikely event emergency access would be required. Prior to and during construction, Valley Water would coordinate with the City of Cupertino to ensure adequate emergency access is maintained at Creekside Park. The Project would not limit existing emergency access within the Project vicinity, as there would be no road closures or interruptions. **No impact** is anticipated.

Tribal Cultural Resources

Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, 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:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Regulatory Setting

Effective July 1, 2015, AB 52 requires lead agencies to provide notice to any California Native American tribes that have requested notice of projects proposed by the lead agency, and if a tribe requests consultation within 30 days upon receipt of the notice, the lead agency must consult with the tribe. Topics that may be addressed during consultation include tribal cultural resources, the potential significance of project impacts, type of environmental document that should be prepared, and possible mitigation measures and project alternatives.

AB 52 creates a new category of resources called tribal cultural resources. PRC Section 21074(a) defines tribal cultural resources as:

“Sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), 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; and/or
- b) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1; and/or
- c) 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.”

Because criteria a) and b) also meet the definition of a historical resource under CEQA, a tribal cultural resource may also require additional consideration as a historical resource. Tribal cultural resources may or may not exhibit archaeological, cultural, or physical indicators.

PRC Section 21073 defines California Native American tribes as “a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of the Statutes of 2004.” This includes federally and non-federally recognized tribes.

Recognizing that California tribes are experts in their tribal cultural resources and heritage, AB 52 requires that CEQA lead agencies carry out consultation with tribes at the commencement of the CEQA process to identify tribal cultural resources. Furthermore, because a significant effect on a tribal cultural resource is considered a significant impact on the environment under CEQA, consultation is required to develop appropriate avoidance, impact minimization, and mitigation measures.

Tribal Consultation

AB 52 consultation requirements went into effect on July 1, 2015 for all projects that have not already published a NOI to Adopt a ND or MND, or published a Notice of Preparation of an EIR. To date, Valley Water has received one written request from the Muwekma Ohlone Indian Tribe of the San Francisco Bay Area Region to receive notifications as specified in PRC Sections 21080.3.1. Therefore, Valley Water mailed a Project notification letter to Charlene Nijmeh, Chairwoman of the Muwekma Ohlone Indian Tribe of the San Francisco Bay Area Region, on July 3, 2019, which provided a brief description and location of the Project. A follow-up phone call was also placed with Chairwoman Nijmeh on August 19, 2019, but no message was left due to a full mailbox. No request for consultation was received within the 30-day response period, or during the second effort to contact the Tribe after the response period lapsed. Therefore, no AB 52 consultation is required.

Existing Conditions

Valley Water conducted a records search and pedestrian survey for potential cultural resources present in the Project area and summarize their findings in a Cultural Resources Survey Memorandum (**Appendix E**; Pacific Legacy 2018). The investigation included a search of archives and records, consultation with the NAHC, and a pedestrian inventory survey. A search of the California Historical Resources Information System was conducted by the NWIC on August 22, 2018. This search indicated that two prior archaeological studies overlapped with approximately 20% of the Project area; however, no previously recorded archaeological sites, buildings, or structures were noted. The NWIC reported a “moderate potential” for Native American and historic period archeological resources.

No prehistoric or historic period cultural resources were identified during the pedestrian survey. This survey area included “all exposed soils in the Calabazas Creek bed and the eroded banks on both the east and west sides of the creek between Miller Avenue and Bollinger Road,” though particular attention was paid to the bank rehabilitation sites, creek bed, and access locations. Based on the results of the survey and an archival and records search, Pacific Legacy, Inc. archeologists determined there would be a low likelihood of encountering cultural resources during ground disturbing activities (Pacific Legacy 2018).

Discussion

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

- a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k), or**

The Cultural Resources Survey Memorandum (**Appendix F**) determined there are no cultural resources which are listed or eligible for listing in the NRHP, CRHR, or any other local register of historical resources located in the Project area, including tribal cultural resources. Therefore, there would be **no impact**.

- b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

The Cultural Resources Survey Memorandum (**Appendix F**) prepared for the Project did not suggest presence of tribal cultural resources in the Project area. Therefore, no known Tribal Cultural Resources have been identified (as defined in Section 21074) within the Project area and the Project would not cause a substantial adverse change in the significance of a known tribal cultural resource.

In the event that unknown tribal cultural resources are encountered during construction activities, Valley Water would implement BMP CU-1 (*Accidental Discovery of Archaeological Artifacts, Tribal Cultural Resources, or Burial Remains*), which would require that work at the location of the find would be halted immediately within 100 feet of the find and a “no work” zone shall be established utilizing appropriate flagging to delineate the boundary of this zone. A Consulting Archaeologist would visit the discovery site as soon as practicable for identification and evaluation pursuant to PRC Section 21083.2 and CCR Section. If the archaeologist determines that the artifact is not significant, the archaeologist would determine if he artifact or resource can be avoided and, if so, will detail avoidance procedures. If the artifact cannot be avoided, the archaeologist would develop within 48 hours an Action Plan which would include provisions to minimize impacts and, if required, a Data Recovery Plan for recovery of artifacts in accordance with PRC Section 21083.2 and Section 15126.4 of the CEQA Guidelines. If a tribal cultural resource cannot be avoided, the Action Plan would include notification of the appropriate Native American Tribe, and consultation with the tribe regarding acceptable recovery options.

Consistent with BMP CU-1, if burial finds are accidentally discovered during construction, work in affected areas would be restricted or stopped until proper protocols are met. Upon discovering any burial site as evidenced by human skeletal remains, the County Coroner would 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 100 feet of the site or any nearby area reasonably suspected to overlie adjacent remains may be made except as authorized by the County Coroner, NAHC, and/or the County Coordinator of Indian Affairs. Therefore, impacts resulting from the destruction of tribal cultural resources would be **less than significant**.

Utilities and Service Systems

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Regulatory Setting

Assembly Bill 939

The primary legislation related to the environmental impacts with respect to solid waste management is AB 939. AB 939 requires all California counties to prepare integrated waste management plans and all municipalities to divert 50 percent of the waste stream from landfill disposal by the year 2000 and each year thereafter. The City of Cupertino is currently in compliance with AB 939 requirements for 50 percent landfill diversion.

AB 939 also established the California Integrated Waste Management Board, which was renamed CalRecycle. CalRecycle is responsible for reducing waste, promoting the management of all materials to their highest and best use, and protecting public health/safety and the environment. To meet these responsibilities, CalRecycle has enforcement authority in solid waste facility operation and closure; waste diversion planning, programs, and technical assistance; recycled-content newsprint; recycled-content trash bags; used oil recycling; and waste tire hauling and storage.

City of Cupertino General Plan

The City of Cupertino General Plan contains policies related to utilities and service systems (Table 4-14).

Table 4-14. Cupertino General Plan Policies Related to Utilities

Policy No.	Policy Description
INF-1.2: Maintenance	Ensure that existing facilities are maintained to meet the community's needs.
INF-2.1: Maintenance	Maintain the City's right-of-way and traffic operations systems.
INF-2.4: Undergrounding Utilities	Explore undergrounding of utilities through providers, public projects, private development and agency funding programs and grants.
INF-3.1: Coordination with Providers	Coordinate with water providers and agencies in their planning and infrastructure process to ensure that the City continues to have adequate supply for current needs and future growth.
INF-4.1: Planning and Management	Create plans and operational policies to develop and maintain an effective and efficient stormwater system.
INF-5.1: Infrastructure	Ensure that the infrastructure plans for Cupertino's wastewater system = providers continue to meet the City's current and future needs.
INF-7.3: Operations	Encourage public agencies and private property owners to design their operations to exceed regulatory waste diversion requirements.
INF-8.1: Reducing Waste	Meet or exceed Federal, State and regional requirements for solid waste diversion through implementation of programs....Encourage recycling and reuse of building materials during demolition and construction of City, agency and private projects.

Source: City of Cupertino 2015a

Existing Conditions

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 1.9 million residents. Valley Water manages ten dams and surface water reservoirs, three water treatment plants, and more than 275 miles of streams.

Water

The City of Cupertino's water is provided by the California Water Company and the San Jose Water Company. San Jose Water Company provides water for residents and businesses in Cupertino south of Stevens Creek Boulevard, which includes the Project area. Both retailers purchase their water supply from Valley Water which receives water from the Rinconada Treatment Plant and wells fed by groundwater.

Wastewater

The wastewater collection and treatment system serving Cupertino is provided by the Cupertino Sanitary District and the City of Sunnyvale. A majority of the City's wastewater treatment is provided by the San Jose-Santa Clara Regional Wastewater Facility, which is jointly owned by the cities of San Jose and Santa Clara. The City of Sunnyvale provides wastewater treatment service for Cupertino's commercial properties along Stevens Creek Boulevard, east of Finch Avenue, and a portion of the Rancho Rinconada neighborhood adjacent to the Project area. The City of Sunnyvale operates a sewer line that crosses through the Project area near Site 9, daylighting over the creek. No wastewater is currently produced within the Project area.

Storm Water Drainage

The City of Cupertino's storm drainage system consists of storm drains with outfalls to creeks, including Calabazas Creek and Regnart Creek. The City of Cupertino adopted a Storm Drain Management Plan in 2018, which establishes a prioritized capital improvement program to reduce the risk of flooding. The City of Cupertino is regulated by the Municipal Regional Stormwater NPDES Permit (MRP). The MRP is issued by the RWQCB and requires the City to implement a stormwater pollution prevention program. To meet these requirements, the City joined with 15 other agencies to establish the Santa Clara Valley Urban Runoff Pollution Prevention Program, which develops solutions to control urban runoff quality.

Solid Waste

The City of Cupertino contracts with Recology South Bay for solid waste, recycling, compost, and yard waste collection services. City residents and businesses served by Recology have achieved a 69 percent diversion rate in 2012. Non-hazardous solid waste is taken to Newby Island Sanitary Landfill for processing, and recyclable materials are handled by Recology South Bay. The Newby Island Sanitary Landfill is anticipated to have sufficient capacity until June 2025. No solid waste is currently produced in the Project area.

Gas and Electricity

Pacific Gas & Electric Company (PG&E) provides electrical and natural gas transmission and distribution services to the City of Cupertino. As of 2017, Silicon Valley Clean Energy is the default electricity provider, with PG&E as an optional electricity provider. PG&E overhead electrical distribution lines parallel a majority of the Project area, other than along Creekside Park. No known major natural gas pipelines intersect the Project area.

Discussion

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

The Project involves rehabilitation of the banks of Calabazas Creek. Construction would require a small amount of potable or reclaimed water during construction for dust suppression, distributed to the site via water trucks. Water would also be required for irrigation of the native trees planted at Sites 9 and 10 for a period of 3 to 5 years. However, adequate sources of water are currently available, and no new or expanded water treatment facilities would be required to provide the minimal amount of irrigation water. Wastewater may be generated during construction, but it would be minimal, and Project would not generate wastewater during operation. Therefore, the Project would not result in the need for new, upgraded, or expanded water or wastewater facilities.

The Project would install riprap and sheet pile walls in limited areas along the creek and would not result in an increase of impervious surfaces. The Project would not change water conveyance or stormwater runoff. Therefore, the Project would not result in construction of new storm water drainage facilities or expansion of existing facilities.

The sewer line that crosses over the creek at Site 9, owned and managed by the City of Sunnyvale, would be decommissioned to allow for removal of the pipe, utility bridge, and existing log revetment wall (protecting the existing west abutment). The City of Sunnyvale has adequate capacity on other nearby sewer lines to divert the wastewater serviced by this line

without requiring construction of new sewer lines or wastewater treatment facilities. Other types of facilities including water, electric power, natural gas, and telecommunications would not be interrupted by the Project, and addition or expansion of these facilities would not be necessary as a result of the Project, as the operational utility demand would remain unchanged from baseline conditions. Therefore, the impact would be **less than significant**.

b) Would the Project have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?

Water use during Project construction would be limited to dust suppression and temporary irrigation of trees planted at Sites 9 and 10. Water for dust suppression would be transported to the Project area via water trucks. After bank rehabilitation work is complete, native trees would be planted at Sites 9 and 10 and temporary irrigation would be required during the plant establishment period of 3 to 5 years. A water truck would routinely connect into the irrigation system providing water for irrigation during the plant establishment period. All water use at the site would be temporary. Once operational, the Project would not result in an increased demand for water from existing conditions. Therefore, no new or expanded water supply entitlements would be required to serve the Project, and the impact would be **less than significant**.

c) Would the Project result in a determination by the wastewater treatment provider, which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?

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

d) Would the Project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Construction would generate solid waste associated with construction materials, excavation spoils, vegetation removal, and general refuse, which would be disposed of at a local landfill. Excavation spoils may be reused at other bank repair sites if it is free of contaminants and is appropriate for the proposed use. Up to 9,120 cubic yards of excavated spoils and 32 trees would be hauled off-site. Material recycling and mulching of removed vegetation would be implemented to the maximum extent practicable. The closest landfill to the Project area is the Newby Island Sanitary Landfill, located approximately 10 miles northeast at 1601 Dixon Landing Road in Milpitas. The landfill has a total estimated capacity of 65.9 million cubic yards. The landfill has a permitted throughput of 4,000 tons per day and is anticipated to have sufficient capacity until 2041, its expected closure date. Given the small amount of solid waste that would be generated by the proposed project and the remaining capacity available at the Newby Island Sanitary Landfill, the Project would be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs. The Project would not generate additional waste once completed. Impacts related to solid waste disposal would be **less than significant**.

e) Would the Project comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

The Project would comply with all applicable federal, State, and local statutes and regulations related to solid waste, including recycling programs. The Project would not impair the City of Cupertino's requirement under AB 939 for 50 percent landfill diversion. Once operational, the Project would not result in an increase in the amount of solid waste produced from maintenance of the creek in the Project area. **No impact** would occur.

Wildfire

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

Regulatory Setting

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.

The City of Cupertino General Plan (2015) only includes policies related to wildfire for areas prone to wildfire hazards, and therefore do not apply to the Project.

Existing Conditions

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 Project area is within a LRA for determining the risk of wildfires, and occurs outside of a designated Very High Fire Hazard Severity Zone (CalFire 2008). Furthermore, the Project area is not part of the Wildland Urban Interface Zone, which is the primary area of concern for risks associated with wildfires.

The City of Cupertino's General Plan states: "the urbanized portions of Cupertino are not exposed to a high risk of fire. The City is served by a well-managed fire protection service as well as a fire prevention program" (City of Cupertino 2015a).

Discussion

a) Would the Project substantially impair an adopted emergency response plan or emergency evacuation plan?

The 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) Would the Project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

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

c) Would this Project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

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

d) Would the Project expose people or structures to significant risks, including downslope, or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

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

Mandatory Findings of Significance

CEQA requires that the analysis of potential project impacts include cumulative impacts. CEQA defines cumulative impacts as “two or more individual effects which, when considered together are considerable or which compound or increase other environmental impacts.” This analysis of cumulative impacts need not be as in-depth as what is performed relative to the project, but instead is to “be guided by the standards of practicality and reasonableness.”

Past, present, and reasonably foreseeable future projects occurring in the vicinity of the proposed project sites could result in cumulative impacts in combination with Project impacts. These projects have been identified by reviewing local and regional planning agencies’ websites, general plans, and other planning documents for approved, ongoing, and proposed projects in the project vicinity.

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) 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 the past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) **Would the Project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, 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?**

While the Project would result in potentially significant impacts on biological resources and from noise, implementation of applicable biological and noise BMPs and mitigation measures as proposed in this MND would ensure that the 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 of a rare or endangered plant or animal. While the Project would permanently impact a small area of riparian habitat and remove riparian trees, these impacts would be fully mitigated in accordance with **MM-BIO-2** (*Restore and/or Enhance Riparian Habitat*) and **MM-BIO-3** (*Protection and Replacement of Protected Trees*).

The Project would not result in significant impacts on cultural resources given the low likelihood of encountering cultural resources, past disturbance in the Project area, and limited excavation of native soils. 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**.

- b) Would the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of the past projects, the effects of other current projects, and the effects of probable future projects)?**

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.

Valley Water is currently planning a fence relocation project for summer 2020 intended to allow Valley Water to reclaim its right of way in Calabazas Creek. The fence relocation project would relocate residential fences to the appropriate property lines, outside of Valley Water's right of way. This fence relocation project would not result in potentially significant effects pursuant to CEQA. Viewed in conjunction with the fence relocation project, the Project would not result in cumulatively considerable effects. After construction, there could be minor effects from subsequent projects involving bank maintenance performed under Valley Water's SMP, but the scale and frequency of any such projects would decrease as compared to maintenance of the existing creek corridor, as the Project would address the most critical maintenance needs in the area. No other projects are anticipated within the Project area.

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

- c) Would the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?**

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

beings would be temporary. Therefore, the Project would not cause substantial adverse effects on human beings, directly or indirectly, and the impact would be **less than significant**.

Chapter 5

Report Preparation

This chapter lists those individuals who contributed to the preparation of this MND and supporting technical reports.

Valley Water – Mitigated Negative Declaration

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WRA – Aquatic Resource Delineation Report

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