Draft Initial Study / Proposed Mitigated Negative Declaration

Adobe Creek Sewer Main Replacement Project

City of Los Altos, Santa Clara County, California





Prepared for:

City of Los Altos
1 North San Antonio Road
Los Altos, CA 94022

Attn: Thanh Nguyen, PE
TNguyen@losaltosca.gov

Prepared by:

WRA, Inc.
2169 G East Francisco Boulevard
San Rafael, CA 94901

August 2024

WRA#30194

Contents

1.0 INTRODUCTION AND PURPOSE 1

2.0 PROJECT INFORMATION 1

2.1 Project Title 1

2.2 Lead Agency Name and Address 1

2.3 Contact Person and Phone Number 1

2.4 Project Location 1

2.5 Existing Land Use Designation and Zoning District 4

2.6 Surrounding Land Uses and Setting 4

3.0 PROJECT DESCRIPTION 6

3.1 Proposed Project 6

3.2 Project Construction 6

3.2.1 Construction Overview 6

3.2.2 Schedule, Personnel, and Equipment 7

3.2.3 Staging and Access 7

3.2.4 Utility Relocation 7

3.2.5 Tree Removal 8

3.3 Project-Related Approvals, Agreements, and Permits 21

4.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED 22

4.1 Determination 22

4.2 Initial Study Checklist 23

4.2.1 Aesthetics 24

4.2.2 Agricultural and Forestry Resources 26

4.2.3 Air Quality 28

4.2.4 Biological Resources 33

4.2.5 Cultural Resources 49

4.2.6 Energy 53

4.2.7 Geology and Soils 55

4.2.8 Greenhouse Gas Emissions 60

4.2.9 Hazards and Hazardous Materials 63

4.2.10 Hydrology and Water Quality 67

4.2.11 Land Use and Planning 71

4.2.12 Mineral Resources 72

4.2.13 Noise 73
4.2.14 Population and Housing 79
4.2.15 Public Services 80
4.2.16 Recreation 82
4.2.17 Transportation 84
4.2.18 Tribal Cultural Resources 88
4.2.19 Utilities and Service Systems 91
4.2.20 Wildfire 94
4.2.21 Mandatory Findings of Significance 96
5.0 REFERENCES 99

List of Tables

Table 1. Tree Impacts within the Riparian Zone 8
Table 2. Potential Project Permits and Approvals 21
Table 3. Unmitigated Construction Emissions 30
Table 4. Exterior Noise Limits 74
Table 5. Exterior Noise Level Standards 75
Table 6. Typical Ranges of Construction Noise Levels at 50 Feet, Leq (dBA) 77

List of Figures

Figure 1. Regional Location 2
Figure 2. Project Site Aerial View 3
Figure 3. Land Use Map 5
Figure 4. Project Site Plan (Page 1 of 6) 12
Figure 5. Surveyed Trees (Page 1 of 3) 18
Figure 6. Land Cover Types within the Project Site 39

List of Appendices

Appendix A. California Emissions Estimator Model

Appendix B. Biological Resources Technical Report

Appendix C. Cultural Resources Study (Under Separate cover and Available for Review by Qualified Individuals Only)

List of Acronyms and Abbreviations

AB	Assembly Bill
ABAG	Association of Bay Area Government
BAAQMD	Bay Area Air Quality Management District
Basin Plan	San Francisco Bay Region Water Quality Control Plan
BMPs	best management practices
CAAP	Climate Action and Adaptation Plan
CAAQS	California ambient air quality standards
CAL FIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
Cal/OSHA	California Division of Occupational Safety and Health
CAP	Clean Air Plan
CARB	California Air Resources Board
CCR	California Code of Regulations
C&D	construction and demolition
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
City	City of Los Altos
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
Corps	United States Army Corps of Engineers
CO_2	carbon dioxide
CO_2e	CO_2 equivalent
CWA	Clean Water Act
CY	cubic yards
dB	decibel
dBA	A-weighted sound level
DBH	diameter at breast height
District	Los Altos Suburban District
DTSC	Toxic Substances Control
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zone
FIRM	Federal Insurance Rate Maps

FMMP	Farmland Mapping and Monitoring Program
GHG	greenhouse gas
HDPE	high-density polyethylene
Inventory	CNPS Rare and Endangered Plant Inventory
IPac	Information for Planning and Consultation
ISA	International Society of Arboriculture
L_{dn}	day-night average noise level
L_{eq}	energy-equivalent noise level
L_{max}	maximum noise level
LRA	Local Responsibility Area
LUST	leaking underground storage tanks
MBTA	Migratory Bird Treaty Act
MND	Mitigated Negative Declaration
MT	metric tons
MTC	Metropolitan Transportation Commission
NAAQS	National Ambient Air Quality Standard
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NFHL	National Flood Hazard Layer
NMFS	National Marine Fisheries Service
NO_x	nitrogen oxides
NPDES	National Pollution Discharge Elimination System
OHWM	Ordinary High Water Mark
Origer	Tom Origer & Associates
O_3	ozone
PCE	tetrachloroethylene
PG&E	Pacific Gas and Electric Company
PM	particulate matter
$PM_{2.5}$	fine particulate matter
PM_{10}	respirable particulate matter
PPV	peak particle velocity
Rank	California Rare Plant Rank
RCRA	Resource Conservation and Recovery Act
ROG	reactive organic gas
RPZ	root protection zone
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SFBAAB	San Francisco Bay Area Air Basin
SVCE	Silicon Valley Clean Energy
SO_x	sulfur oxide
SRA	State Responsibility Area
SWRCB	State Water Resources Control Board
TCE	trichloroethylene
TCP	Traffic Control Plan
Town	Town of Los Altos Hills

USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
VCP	vitrified clay pipe
VOC	volatile organic compound
VTA	Santa Clara Valley Transportation Authority
WPT	western pond turtle
WRA	WRA, Inc.

1.0 INTRODUCTION AND PURPOSE

This Initial Study/Proposed Mitigated Negative Declaration (IS/MND) of environmental impacts is being prepared to conform to the requirements of the California Environmental Quality Act (CEQA), the CEQA Guidelines (California Code of Regulations 15000 et. seq.), and the regulations and policies of the City of Los Altos (City). This IS/MND evaluates the potential environmental impacts which might reasonably be anticipated to result from implementation of the Adobe Creek Sewer Main Replacement Project (the project).

The City is the Lead Agency under CEQA and has WRA, Inc. (WRA) has prepared this IS/MND on behalf of the City to address the impacts of implementing the proposed project. The purpose of the proposed project is to replace the existing Adobe Sewer Main with minimal impact to Adobe Creek.

2.0 PROJECT INFORMATION

2.1 Project Title

Adobe Creek Sewer Main Replacement Project (project)

2.2 Lead Agency Name and Address

City of Los Altos
One North San Antonio Road
Los Altos, CA 94022

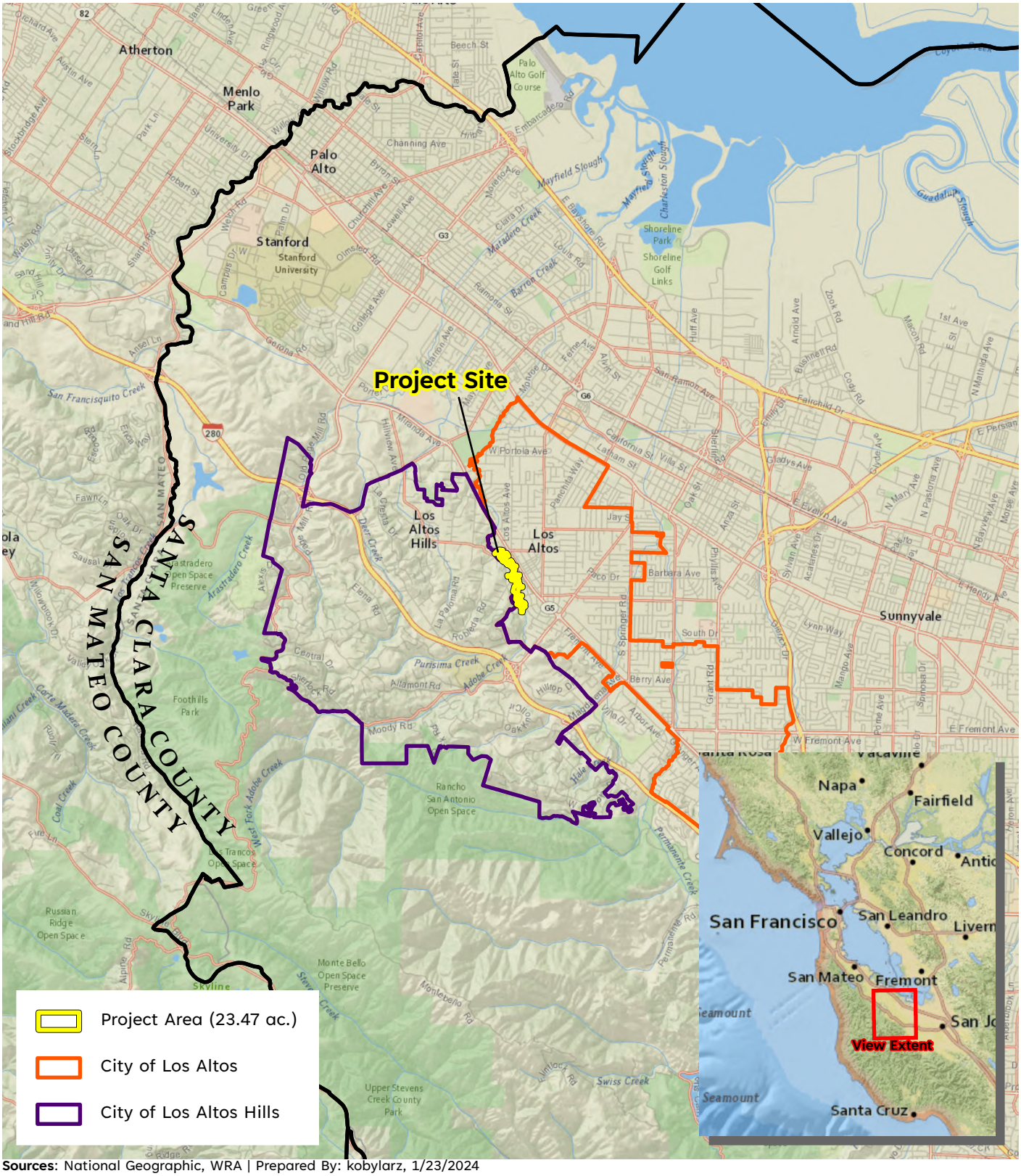
2.3 Contact Person and Phone Number

Thanh Nguyen, PE
Senior Civil Engineer
City of Los Altos
1 North San Antonio Road
Los Altos, CA 94022
TNguyen@losaltos.gov
650-947-2624

2.4 Project Location

The project site is situated in the City of Los Altos and Town of Los Altos Hills (Town), located in Santa Clara County. The project would involve replacement of the Adobe Creek Sewer Main, including 53 sewer lines (totaling 6,580 linear feet), that extends through 24 private parcels and portions of the public right-of-way.

The project location is shown on the Regional Location Map (Figure 1) and Project Site Aerial View Map (Figure 2).



Sources: National Geographic, WRA | Prepared By: kobylarz, 1/23/2024

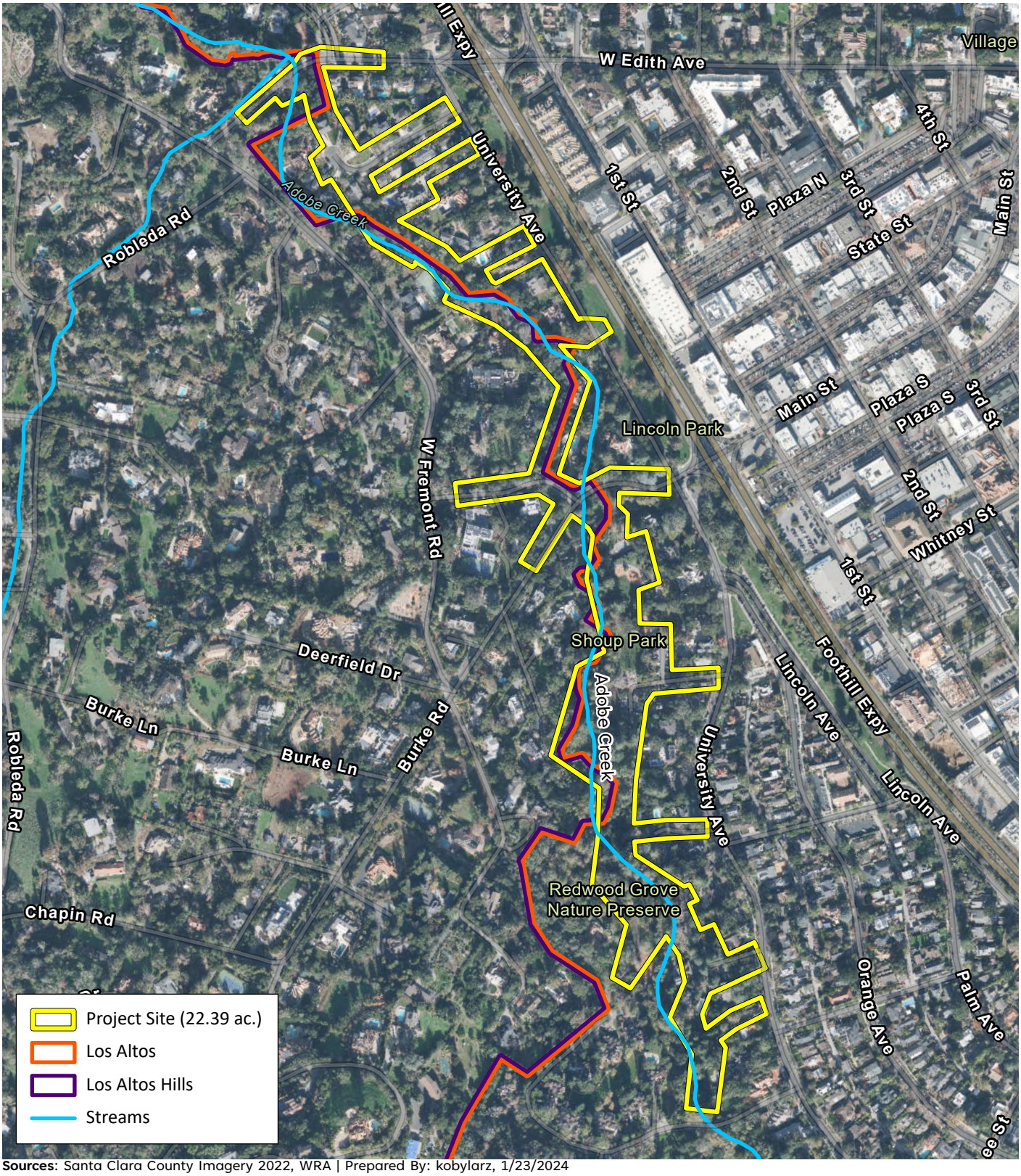
Figure 1. Regional Location

Adobe Creek Sewer Main Replacement Project
Los Altos, California

0 1 2 Miles

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Sources: Santa Clara County Imagery 2022, WRA | Prepared By: kobylarz, 1/23/2024

Figure 2. Project Site Aerial View

Adobe Creek Sewer Main Replacement Project
Los Altos, California

0 250 500 Feet

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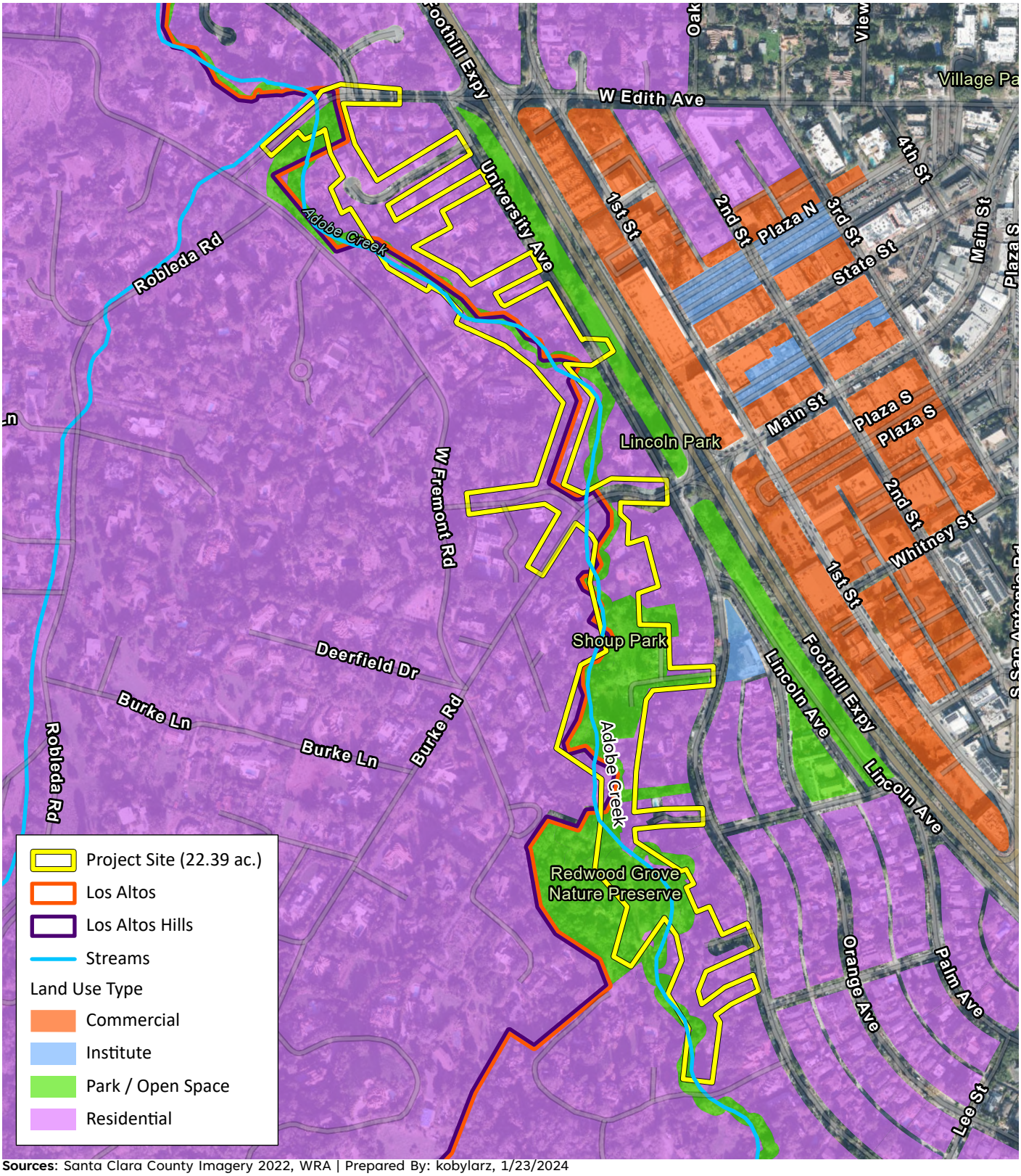
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2.5 Existing Land Use Designation and Zoning District

The project area includes existing land uses of commercial, public and institutional, park/open space, and residential (Figure 3). Within the City of Los Altos, the project alignment is located in Single Family (R1-H), Public & Community Facilities (PCF), and Park zoning districts. Within the Town of Los Altos Hills, the project alignment is located in Open Space Reserve (OSR) and Residential-Agricultural (RA) zoning districts.

2.6 Surrounding Land Uses and Setting

The project site is characterized by flat terrain associated with residential development. Portions of the project site include moderately sloped, intermittent Adobe Creek, Redwood Grove Nature Preserve, and Shoup Park. The majority of the project site is currently developed. Developed areas include a network of residential roads, and residences and public parks and their associated landscaping. The project site is surrounded by residential development on all sides.



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Sources: Santa Clara County Imagery 2022, WRA | Prepared By: kobylarz, 1/23/2024

Figure 3. Land Use Map

Adobe Creek Sewer Main Replacement Project
Los Altos, California

0 250 500 Feet

N

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3.0 PROJECT DESCRIPTION

3.1 Proposed Project

The City is proposing to replace the existing Adobe Creek Sewer Main which includes 53 sewer lines, totaling 6,580 linear feet. The project site is located largely within private properties, the City's public right-of-way, and various parks. The existing sewer mains are due for replacement because of their current condition. The purpose of the proposed project would increase resiliency and longevity of the sewer main and would greatly reduce maintenance needs associated with sewer line repair. The project site plans are shown in Figure 4.

3.2 Project Construction

3.2.1 Construction Overview

Project construction would utilize a trenchless pipe reaming method to remove existing pipes and install new pipes at the same time, except where pipe replacement would require traditional open cut excavation method. Construction would include approximately 5,810 linear feet of trenchless construction and 860 linear feet of open cut excavation. Construction of the proposed project would include the following steps:

SITE PREPARATION

Permits and/or approvals would be obtained from appropriate agencies, including utility clearance. Materials and equipment would be transported to staging areas to prepare the project site for excavation.

EXCAVATION AND PIPE INSTALLATION

Trenchless Pipe Reaming

The area around the existing sewer manholes would be excavated. The excavation would be approximately 50 feet by 6 feet with the deepest excavation being 10-foot-deep near the manhole, sloping to the ground as the excavation moves away from the manhole. The excavated holes would be used to insert the new pipes through the existing pipes. New HDPE pipes would be pulled through the existing VCP pipes using a horizontal directional drilling machine. The existing pipes would be broken down and portions will be transferred to an exit point for removal. Approximately 5,810 linear feet of pipes would be replaced with the trenchless pipe reaming method.

Open Cut Excavation

A total of 860 linear feet of the sewer alignment would be excavated with a depth of 10-feet to create open trenches for a total area of disturbance of 2,580 square feet. The existing pipes would

be removed, and new pipes would be installed.

BACKFILLING

The excavated holes and open cut trenches would be backfilled with some of the excavated soil and imported native soil. The total excavation export volume is estimated at 1,300 cubic yards (CY) and the total import volume is estimated at 1,230 CY.

RESTORATION

The work areas would be cleaned up following completion of construction activities. Debris and equipment would be removed from staging areas and disturbed areas would be restored to the pre-construction condition.

3.2.2 Schedule, Personnel, and Equipment

Project construction would take 12 months spanning four construction years (three months per year) to complete, totaling approximately 262 workdays. Approximately ten workers would be required on-site at a time during each construction year. Construction equipment would include the following:

- Cement and mortar mixer
- Excavator
- Horizontal drilling machine
- Forklift and rough terrain forklift
- Generator set
- Off-highway tractors
- Vacuum truck
- Paver
- Paving equipment
- Plate compactor
- Sweeper/scrubber
- Other miscellaneous construction equipment

3.2.3 Staging and Access

Staging areas would be located along the sewer alignment. Access routes would include truck routes and obstructed routes. The obstructed routes contain obstacles including gates, steps, stairs, landscapes, decorated walls, and even pools. To ensure safe and efficient access, the construction contractor would coordinate with property owners to gain access or remove the obstacles as necessary. If required, the contractor would find alternative routes within the delineated project area that minimize impacts to the environment and private properties.

Staging areas and access routes are shown in Figure 4.

3.2.4 Utility Relocation

Outside of the proposed relocation sections of a few sewer main lines, the proposed project would not require other utility installation or relocation of existing utilities.

3.2.5 Tree Removal

The City of Los Altos Tree Protection Ordinance (Los Altos Municipal Code [LAMC] Chapter 11.08) and Town of Los Altos Hills Municipal Code ([LAHMC] Section 12-2.101) regulate removal and significant pruning of Protected trees. The project would require impacts of 33 Protected trees, 16 of which are located in the riparian zone regulated by the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW) (WRA, 2023) would require removal (Table 1 and Figure 5). A tree removal permit would be obtained by the applicable governing body, either the City or the Town, for the removal of Protected trees prior to project construction.

An additional 17 trees within the riparian zone would be impacted by the project, four of which are situated below the Top of Bank (TOB). These trees would be preserved by implementing Recommended Tree Protection Measures as described in the Arborist Survey prepared by WRA in 2023, which are described in Section 4.2.4 Biological Resources.

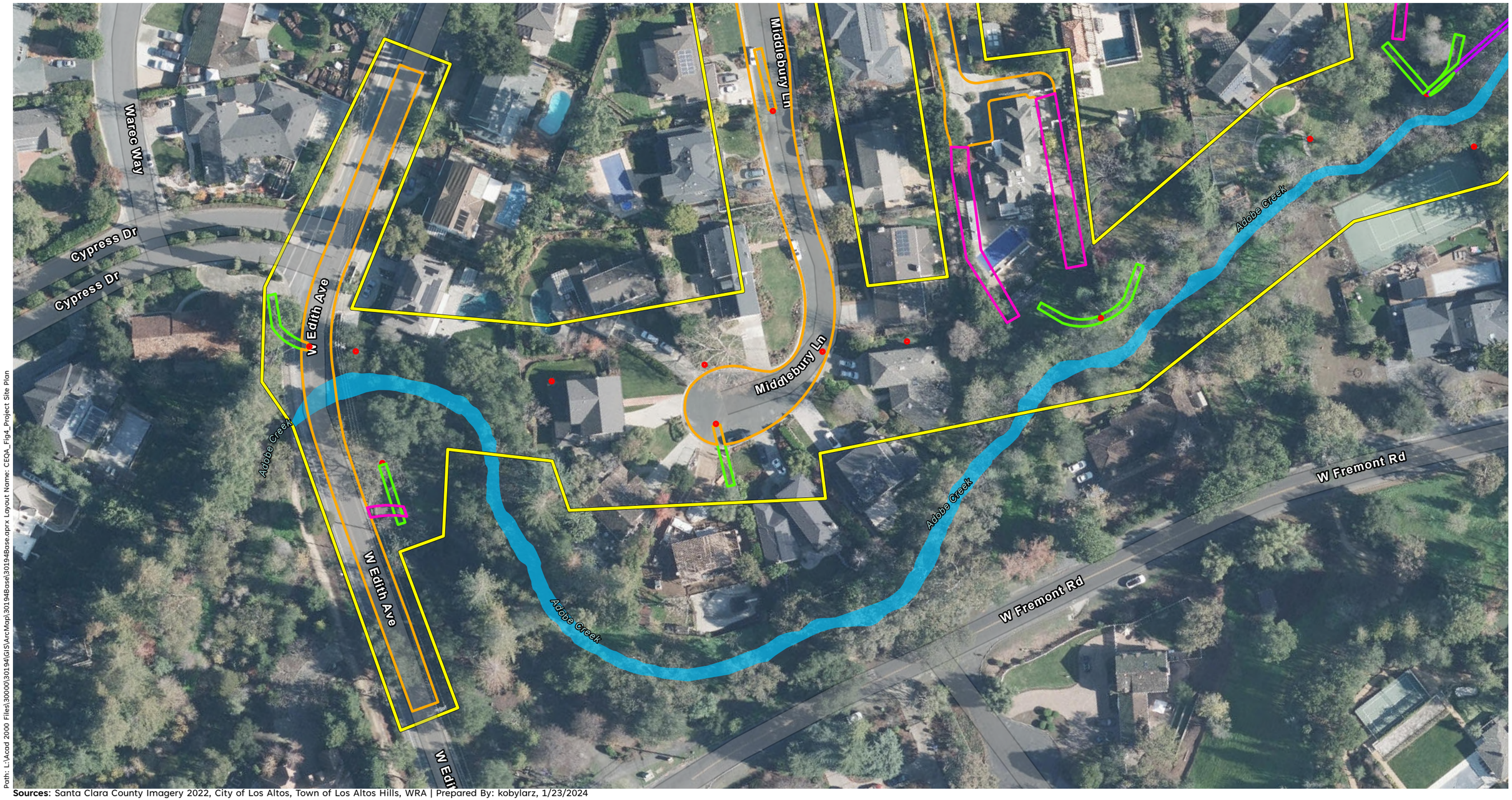
Table 1. Tree Impacts within the Riparian Zone

TAG ID	COMMON NAME	SCIENTIFIC NAME	PROTECTED	IMPACT	REMOVAL	TOB
604	coast redwood	*Sequoia sempervirens*	x			
605	coast redwood	*Sequoia sempervirens*	x			
606	Canary Island pine	*Pinus canariensis*	x	x	x	
607	coast redwood	*Sequoia sempervirens*	x			
609	Acacia	*Acacia sp.*	x		x	
613	coast redwood	*Sequoia sempervirens*	x			
614	Podocarpus	*Podocarpus sp.*	x			
615	coast redwood	*Sequoia sempervirens*	x	x		
616	coast redwood	*Sequoia sempervirens*	x			
617	coast redwood	*Sequoia sempervirens*	x			
618	coast redwood	*Sequoia sempervirens*	x			
619	coast redwood	*Sequoia sempervirens*	x			
620	coast redwood	*Sequoia sempervirens*	x			
621	coast redwood	*Sequoia sempervirens*	x			
622	coast redwood	*Sequoia sempervirens*	x			

623	coast redwood	*Sequoia sempervirens*	x			
624	coast redwood	*Sequoia sempervirens*	x			
625	coast redwood	*Sequoia sempervirens*	x			
626a	California buckeye	*Aesculus californica*	x			
626b	California bay laurel	*Umbellularia californica*	x			
627	California bay laurel	*Umbellularia californica*	x	x		
628	coast live oak	*Quercus agrifolia*	x	x		
629	California buckeye	*Aesculus californica*	x			
630	coast live oak	*Quercus agrifolia*	x			
631	coast live oak	*Quercus agrifolia*	x			
638	California buckeye	*Aesculus californica*	x			x
639	coast live oak	*Quercus agrifolia*	x	x		x
640	coast live oak	*Quercus agrifolia*	x	x		x
641	coast live oak	*Quercus agrifolia*	x	x		
642	California buckeye	*Aesculus californica*	x	x		x
643	valley oak	*Quercus lobata*	x	x		x
644	California buckeye	*Aesculus californica*	x			x
645	California buckeye	*Aesculus californica*	x			x
646	California buckeye	*Aesculus californica*	x			x
647	California buckeye	*Aesculus californica*	x			x
648	California buckeye	*Aesculus californica*	x			x
653	coast live oak	*Quercus agrifolia*	x			
654	California buckeye	*Aesculus californica*	x			x
655	California buckeye	*Aesculus californica*	x			x

659	valley oak	*Quercus lobata*	x	x	
674	California buckeye	*Aesculus californica*	x		x
674b	California buckeye	*Aesculus californica*	x		x
674c	California buckeye	*Aesculus californica*	x		x
674d	California buckeye	*Aesculus californica*	x		x
675	coast live oak	*Quercus agrifolia*	x	x	
676	coast live oak	*Quercus agrifolia*	x		x
677	sheoak	*Casuarina sp.*	x	x	x
678	California buckeye	*Aesculus californica*	x		
679	California sycamore	*Platanus racemosa*	x	x	
680	coast redwood	*Sequoia sempervirens*	x		
681	silver maple	*Acer saccharinum*	x		
682	sheoak	*Casuarina sp.*	x		
683	coast redwood	*Sequoia sempervirens*	x		
684	coast redwood	*Sequoia sempervirens*	x		
685	coast redwood	*Sequoia sempervirens*	x		
686	coast redwood	*Sequoia sempervirens*	x		
687	coast redwood	*Sequoia sempervirens*	x		
688	coast redwood	*Sequoia sempervirens*	x		
689	coast redwood	*Sequoia sempervirens*	x		
690	coast redwood	*Sequoia sempervirens*	x		
827	coast redwood	*Sequoia sempervirens*	x		
828	coast redwood	*Sequoia sempervirens*	x		
829	poplar	*Populus sp.*	x		
830	coast redwood	*Sequoia sempervirens*	x		

831	coast redwood	*Sequoia sempervirens*	x		
832	coast redwood	*Sequoia sempervirens*	x		
833	coast redwood	*Sequoia sempervirens*	x		
834	coast redwood	*Sequoia sempervirens*	x		
835	coast redwood	*Sequoia sempervirens*	x		x
836	coast redwood	*Sequoia sempervirens*	x		
837	scarlet oak	*Quercus coccinea*	x		
849	coast redwood	*Sequoia sempervirens*	x	x	
850	toyon	*Heteromeles arbutifolia*	x		x
852	blue elderberry	*Sambucus mexicanus*	x		x
853	California bay laurel	*Umbellularia californica*	x		x
860	pine, non-native	*Pinus sp.*	x		x
862	coast redwood	*Sequoia sempervirens*	x		
867	coast redwood	*Sequoia sempervirens*	x		
868	coast live oak	*Quercus agrifolia*	x		x
870	coast live oak	*Quercus agrifolia*	x		
871	plum	*Prunus cerasifera*	x		x
872	California buckeye	*Aesculus californica*	x		x



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Sources: Santa Clara County Imagery 2022, City of Los Altos, Town of Los Altos Hills, WRA | Prepared By: kobylarz, 1/23/2024

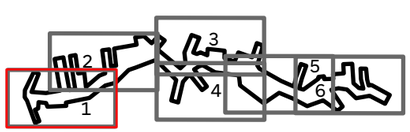
Figure 4. Project Site Plan
Page 1 of 6

Adobe Creek Sewer Project
Los Altos, California

- Project Site (22.39 ac.)
- Adobe Creek

Project Components

- Manhole
- Obstructed Route
- Open Cut
- Staging Area
- Truck Route



0 50 100 Feet

N

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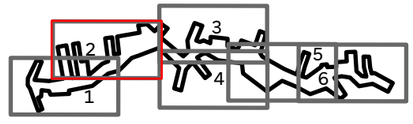
Figure 4. Project Site Plan
Page 2 of 6

Adobe Creek Sewer Project
Los Altos, California

- Project Site (22.39 ac.)
- Adobe Creek

Project Components

- Manhole
- Obstructed Route
- Open Cut
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0 50 100 Feet

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wra
Environmental Consultants

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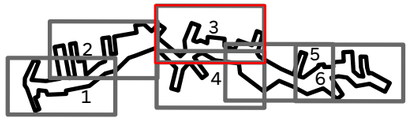
Foothill Expy
Foothill Expy
Foothill Expy
Lincoln Park
Main St
Lincoln Ave
Lincoln Ave
University Ave
University Ave
University Ave
iversity Ave
Burke Rd
Burke Rd
Adobe Creek
Adobe Creek
Adobe Creek
Adobe Creek
Shoup Park

Sources: Santa Clara County Imagery 2022, City of Los Altos, Town of Los Altos Hills, WRA | Prepared By: kobylarz, 1/23/2024

Figure 4. Project Site Plan
Page 3 of 6

Adobe Creek Sewer Project
Los Altos, California

Project Site (22.39 ac.)
Adobe Creek
Project Components
Manhole
Obstructed Route
Open Cut
Staging Area
Truck Route



0 50 100 Feet

N

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Environmental Consultants

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Adobe Creek
Burke Rd
Old Altos Rd
Adobe Creek
Adobe Creek
Shoup Park
Adobe Creek
Adobe Creek
Burke Rd
Hill Way
Hill Way
Old Altos Rd
W Fremont Rd
Burke Rd

Sources: Santa Clara County Imagery 2022, City of Los Altos, Town of Los Altos Hills, WRA | Prepared By: kobylarz, 1/23/2024

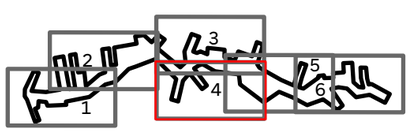
Figure 4. Project Site Plan
Page 4 of 6

Adobe Creek Sewer Project
Los Altos, California

- Project Site (22.39 ac.)
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Project Components

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- Open Cut
- Staging Area
- Truck Route



0 50 100 Feet

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Environmental Consultants

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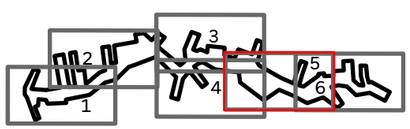


Sources: Santa Clara County Imagery 2022, City of Los Altos, Town of Los Altos Hills, WRA | Prepared By: kobylarz, 1/23/2024

Figure 4. Project Site Plan
Page 5 of 6

Adobe Creek Sewer Project
Los Altos, California

Project Site (22.39 ac.)
Adobe Creek
Project Components
Manhole
Obstructed Route
Open Cut
Staging Area
Truck Route



0 50 100 Feet

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Environmental
Consultants



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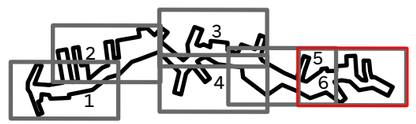
Figure 4. Project Site Plan
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Adobe Creek Sewer Project
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- Project Site (22.39 ac.)
- Adobe Creek

Project Components

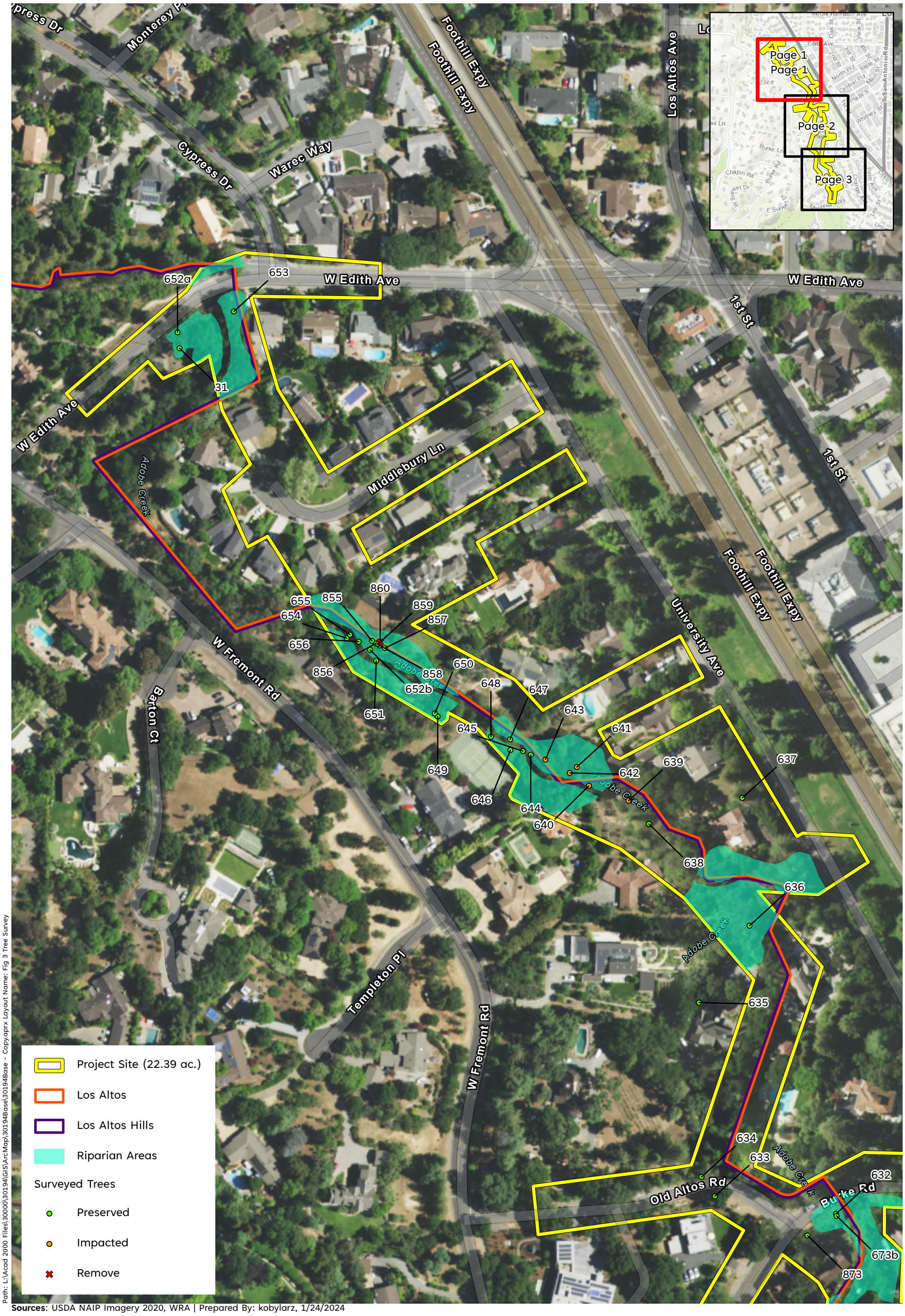
- Manhole
- Obstructed Route
- Open Cut
- Staging Area
- Truck Route



0 50 100 Feet

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Consultants



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Sources: USDA NAIP Imagery 2020, WRA | Prepared By: kobylarz, 1/24/2024

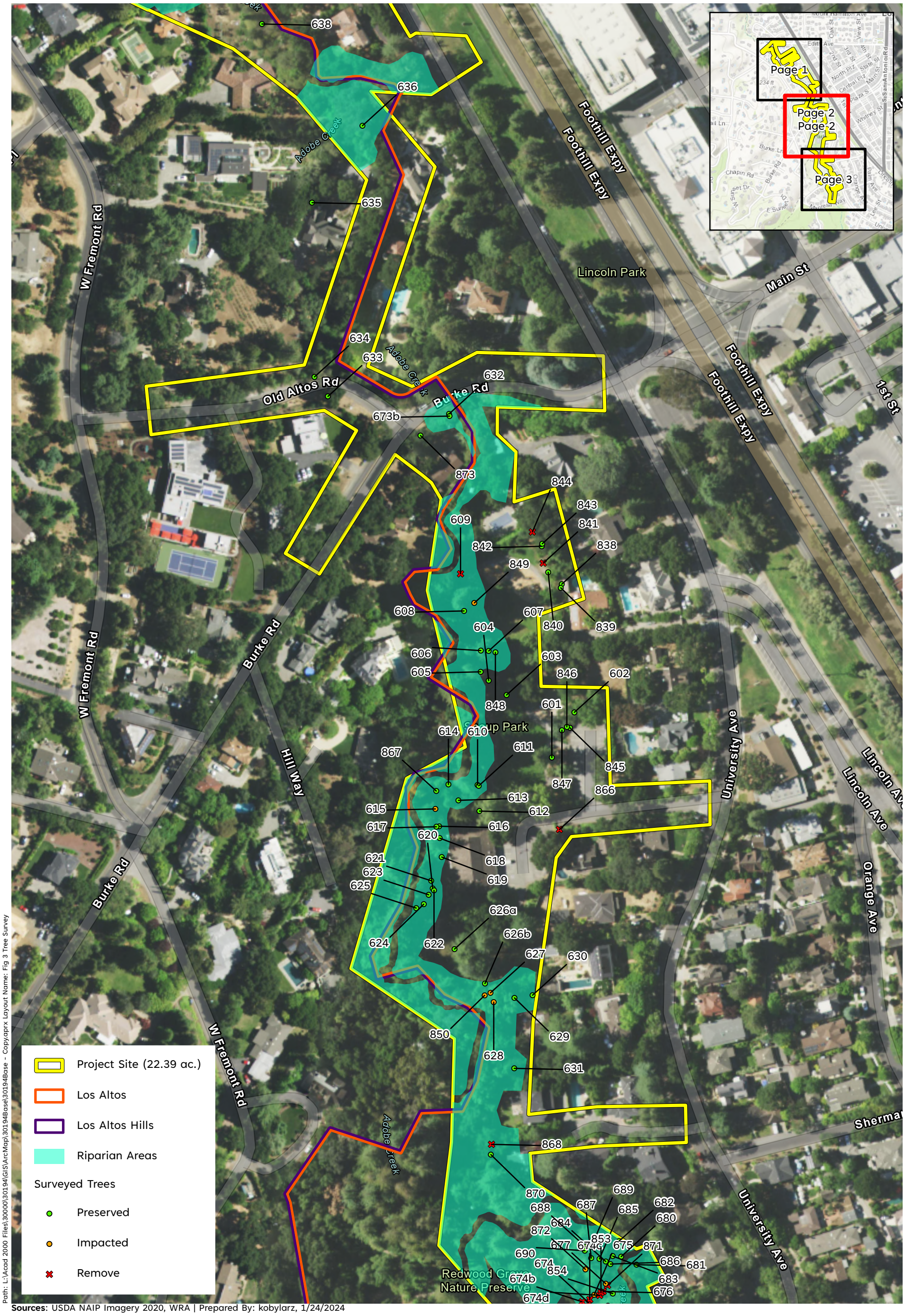
Figure 5. Surveyed Trees
Page 1

Adobe Creek Sewer Main Replacement Project
Los Altos, California

0 200 400 Feet

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wra Environmental Consultants



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Sources: USDA NAIP Imagery 2020, WRA | Prepared By: kobylarz, 1/24/2024

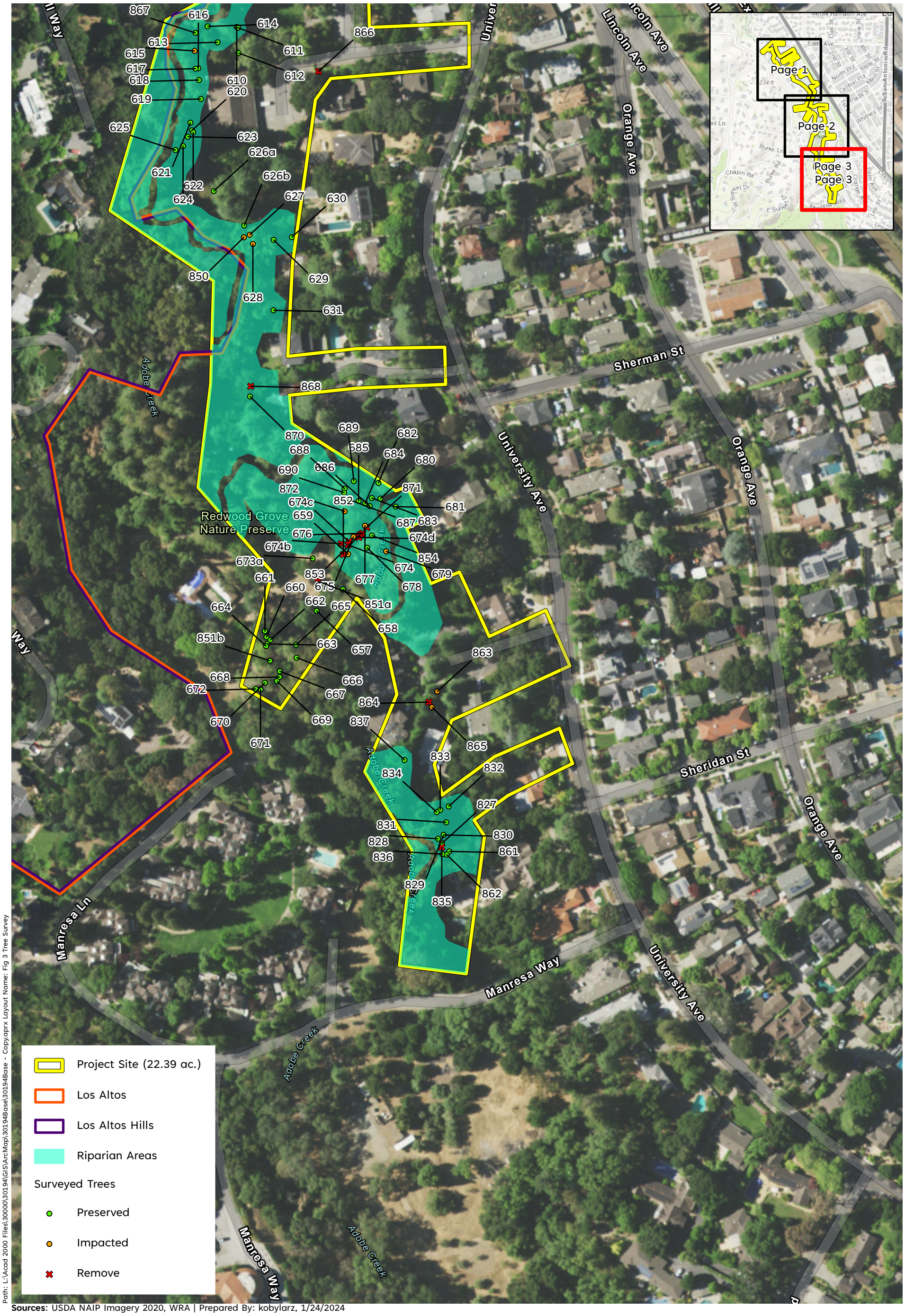
Figure 5. Surveyed Trees
Page 2

Adobe Creek Sewer Main Replacement Project
Los Altos, California

0 200 400 Feet

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wra Environmental Consultants



Path: L:\Acad 2000 Files\30000\30194\GIS\ArcMap\30194Basel\30194Base - Copy.aprx Layout Name: Fig 3 Tree Survey

Sources: USDA NAIP Imagery 2020, WRA | Prepared By: kobylarz, 1/24/2024

Figure 5. Surveyed Trees
Page 3

Adobe Creek Sewer Main Replacement Project
Los Altos, California

wra Environmental Consultants

3.3 Project-Related Approvals, Agreements, and Permits

The information contained in this IS/MND will be used by the City of Los Altos (the CEQA Lead Agency) as it considers whether or not to approve the proposed project. If the proposed project is approved, the IS/MND would be used by the City and responsible and trustee agencies in conjunction with various approvals and permits. Potential permits and approvals for the proposed project are summarized in Table 2.

Table 2. Potential Project Permits and Approvals

AGENCY	PERMIT/APPROVAL
U.S. Army Corps of Engineers	• No Permit Required Request Form
California Department of Fish and Wildlife	• Section 1602 Notification of Lake or Streambed Alteration
San Francisco Bay Regional Water Quality Control Board	• Waste Discharge Permit
City of Los Altos	• Demolition Permit • Building Permit • Tree Removal Permit(s) • Excavation Permit
Town of Los Altos Hills	• Building Permit • Tree Removal Permit(s) • Encroachment and/or Excavation Permit

4.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is potentially significant unless mitigation is incorporated, as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Greenhouse Gas Emissions	☐ Public Services
☐ Agricultural Resources	☐ Hazards and Hazardous Materials	☐ Recreation
☒ Air Quality	☒ Hydrology and Water Quality	☒ Transportation
☒ Biological Resources	☐ Land Use/Planning	☒ Tribal Cultural Resources
☒ Cultural Resources	☐ Mineral Resources	☐ Utilities / Service Systems
☐ Energy	☒ Noise	☐ Wildfire
☒ Geology and Soils	☐ Population and Housing	☒ Mandatory Findings of Significance

4.1 Determination

On the basis of this initial evaluation:

☐ I find that the project COULD NOT have a significant effect on the environment and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the project MAY have a "Potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the 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.



Signature

8/7/2024
Date

Name and Title: Thanh Nguyen, Senior Civil Engineer

4.2 Initial Study Checklist

This section describes the existing environmental conditions in and near the project site and evaluates environmental impacts associated with the proposed project. The environmental checklist, as recommended in the CEQA Guidelines (Appendix G), was used to identify environmental impacts that could occur if the proposed project is implemented. The right-hand column in the checklist lists the source(s) for the answer to each question. The cited sources are identified at the end of this section.

Each of the environmental categories was fully evaluated, and one of the following four determinations was made for each checklist question:

"No Impact" means that no impact to the resource would occur as a result of implementing the project.

"Less than Significant Impact" means that implementation of the project would not result in a substantial and/or adverse change to the resource, and no mitigation measures are required.

"Less than Significant with Mitigation Incorporated" means that the incorporation of one or more mitigation measures is necessary to reduce the impact from potentially significant to less than significant.

"Potentially Significant Impact" means that there is either substantial evidence that a project-related effect may be significant, or due to a lack of existing information, could have the potential to be significant.

4.2.1 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?	☐	☐	☐	☒
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project site is located between the City of Los Altos and the Town of Los Altos Hills in Santa Clara County, California. The project extends generally from West Edith Avenue to the north to Manresa Way to the south. The project would involve replacement of the sewer main which includes 53 sewer lines, totaling 6,580 linear feet. The project alignment would run through 24 private parcels and five public parcels. The project site would be located mainly in areas of residential and recreational use.

DISCUSSION OF IMPACTS

a) Have a substantial adverse effect on a scenic vista?

No Impact

There are no expansive views from either an elevated point or an open area within the project vicinity. The nearest designated vistas are located within the Foothills Nature Preserve (2.75 miles west) and the Rancho San Antonio Open Space Preserve (2.25 miles south). Due to the distance of the project site from these areas, there would be no substantial adverse effects to scenic vistas. No impact would occur.

b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

No Impact

The nearest officially designated state scenic highway is Interstate 280, which extends northerly from San Bruno southerly to its intersection with Alpine Road in Stanford. The officially designated segment of this freeway ends approximately 4.3 miles northwest of the project site. Another segment of Interstate 280 beginning at the Alpine Road intersection and extending south to the intersection with Interstate 880 in Santa Clara, is eligible to be designated as a state scenic highway (Caltrans, 2018). At its closest point, this segment of Interstate 280 is located approximately 0.5 mile southwest of the project site. However, the project site is not visible from any portion of Interstate 280 due to regional topography and development. No impact would occur.

c) *In non-urbanized 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?*

Less than Significant Impact

The project is located in urbanized areas primarily in residential and recreational uses in the City of Los Altos. The project would not conflict with applicable zoning or other regulations governing scenic quality because the project would replace the existing underground sewer main. Project activities during construction may temporarily degrade public views at local parks and recreational areas. However, due to the temporary nature of construction, these impacts are considered less than significant.

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

No Impact

The project would not create a new temporary or permanent source of substantial light or glare. The project would not require nighttime lighting during construction, as all construction work would be conducted during the day. During operation, the new infrastructure replaced by the project would be underground, and thus no new source of light or glare would be created. No impact would occur.

4.2.2 Agricultural 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?	☐	☐	☐	☒
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e)	Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project site is located in a highly developed area in the City of Los Altos and Town of Los Altos Hills. The project site and surrounding areas have been mapped as Urban Built-Up Land in the Farmland Mapping and Monitoring Program (FMMP) by the California Department of Conservation (California Department of Conservation, 2016).

DISCUSSION OF IMPACTS

a-e) 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? Conflict with existing zoning for agricultural use, or a Williamson Act contract? Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code

Section 12220(g)), timberland(as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? Result in a loss of forest land or conversion of forest land to non-forest use? 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?

No Impact

There is no Farmland, forest land, or timberland located in the project area. The project site is mapped by the California Department of Conservation (CDC) as Urban and Built-Up Land (California Department of Conservation, 2016). Areas surrounding the project site are zoned by the City of Los Altos and the incorporated Town of Los Altos Hills. The City has zoned areas around the project site for Single Family Residential (R1-H), Planned Unit Development (PUD), Public & Community Facilities (PCF), and Planned Community (PC) (City of Los Altos, n.d.). The City General Plan Land Use Map designates areas around the project site as Residential, Planned Community (PC), Parks (P), and Other Open Space (OS) (City of Los Altos, 2002a). Areas surrounding the project site are also zoned by Los Altos Hills as Residential-Agricultural (RA) and Open Space Reserve District (OSR) (Town of Los Altos Hills, 2007). The project would not convert Farmland, forest land, or timber land to non-agricultural use, or conflict with an existing zoning for agricultural use or a Williamson Act contract. No impact would occur.

4.2.3 Air Quality

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard?	☐	☒	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
d) Result in other emissions (such as those leading to odors) affecting a substantial number of people?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The project site is located in the San Francisco Bay Area within the San Francisco Bay Area Air Basin (SFBAAB), which is regulated by the Bay Area Air Quality Management District (BAAQMD). BAAQMD is the agency primarily responsible for assuring that the federal and state ambient air quality standards are maintained in the San Francisco Bay Area. Regional air quality management districts, such as BAAQMD, must prepare air quality plans specifying how federal and state air quality standards would be met. BAAQMD's most recently adopted plan is the Bay Area 2017 Clean Air Plan (CAP). The CAP focuses on two related BAAQMD goals: protecting public health and protecting the climate.

Air quality in the San Francisco Bay Area is assessed related to six criteria pollutants: ozone (O_3), nitrogen oxides (NO_x), particulate matter (PM), carbon monoxide (CO), sulfur oxide (SO_x), and lead. The San Francisco Bay Area is currently designated as a nonattainment are for state and federal O_3, state respirable particulate matter (PM_{10}) and fine particulate matter ($PM_{2.5}$) standards, and the federal $PM_{2.5}$ (24-hour) standard. (BAAQMD, 2017).

Sensitive receptors are groups of people that are more affected by air pollution than others. California Air Resources Board (CARB) has identified that following persons are considered air quality sensitive receptors: children, elderly, asthmatics and others whose are at a heightened risk of negative health outcomes due to exposure to air pollution (CARB, 2022). Locations that may

contain a high concentration of these sensitive population groups include residential areas, schools, hospitals, daycare facilities, and elder care facilities. The nearest sensitive receptors to the project site are the residents of the residential areas surrounding the project alignment.

DISCUSSION OF IMPACTS

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant Impact.

The 2017 CAP is the only applicable air quality plan that applies to the project area. The BAAQMD CEQA Guidelines (BAAQMD, 2022) recommend that a project's consistency with the current CAP be evaluated using the following three criteria:

- Would the project support the goals of the CAP?
- Would the project include applicable control measures from the CAP?
- Would the project not disrupt or hinder implementation of any control measures from the CAP?

If these questions (listed above) can be concluded in the affirmative with substantial evidence, then the BAAQMD would consider the project to be consistent with air quality plans prepared for the Bay Area. The proposed sewer main replacement project would support the primary goals of the CAP, which are to attain air quality standards, protect public health, and reduce greenhouse gas emissions and protect the climate.

The CAP includes 85 control measures categorized into nine economic sectors including stationary (industrial) sources, transportation, energy, building, agriculture, natural and working lands, waste management, water, and super greenhouse gas pollutants. None of the 85 specific control measures are directly applicable due to the control measures generally not applying to sewer main replacement construction and operation, although the project would be considered consistent with the measure related to reduction of recycling and waste reduction (Control Measure WA4). The project would not disrupt or hinder implementation of any control measures and would be consistent with applicable measures of the CAP. Therefore, the project would not result in a significant impact related to consistency with the CAP. Estimated construction emissions of the project would not exceed the numerical significance thresholds established by BAAQMD as further discussed under Impact b) below. The impact would be less than significant.

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?

Less than Significant with Mitigation Incorporated

The SFBAAB is designated as a nonattainment area for ozone and $PM_{2.5}$ under both National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). The SFBAAB is also designated as nonattainment for PM_{10} under CAAQS, but not NAAQS. The project could have a cumulatively considerable impact on air quality if it either (1) results in emissions above the significance thresholds or (2) violates any action in an attainment plan.

BAAQMD establishes thresholds of significance for determining the significance of air pollutants and climate impacts resulting from proposed projects in the Bay Area (BAAQMD, 2022). BAAQMD thresholds for ozone precursor pollutants (reactive organic gases [ROGs] and NO_x) and particulate matters (PM_{10} and $PM_{2.5}$) are the thresholds at which a project would be considered to have a cumulatively considerable net increase of any criteria pollutant for which the region is nonattainment.

Operation of vehicles and equipment during project construction would emit diesel particulate matter and other criteria air pollutants. Construction emissions for the project were calculated using California Emissions Estimator Model (CalEEMod) version 2022.1 and were based on the project's estimated construction schedule and anticipated equipment use. Emission modeling and calculation outputs are provided in Appendix A. Table 3 shows the estimated unmitigated average daily air pollutants emission from project construction. The emissions generated during construction would not exceed the BAAQMD significance thresholds for particulate matters (PM_{10} and $PM_{2.5}$), ROGs, NO_x or other ozone precursors. BAAQMD does not set numerical thresholds for fugitive dust generated during construction; however, fugitive dusts emissions generated during construction have the potential to contribute to an existing air quality violation and result in a significant impact. Mitigation Measure AIR-1 requires implementation of fugitive dust control measures to minimize fugitive dust generation during construction. The impact from violation of an air quality standard or contribution to an existing air quality violation would be less than significant with mitigation incorporated.

Following construction, the operation of the project would be similar to current management practices which would be occasional inspections and maintenance. Project operation would not result in greater emissions than existing conditions. Therefore, operational emissions would not result in exceedance of an air quality standard or contribute substantially to an existing or projected air quality violation and the impact would be less than significant.

Table 3. Unmitigated Construction Emissions

YEAR	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Estimated Unmitigated Average Annual Construction Emissions (Tons/Year)						
Year 1	0.02	0.19	0.24	<0.005	0.01	0.01
Year 2	0.02	0.17	0.24	<0.005	0.01	0.01
Year 3	0.02	0.16	0.25	<0.005	0.01	0.01
Year 4	0.02	0.18	0.28	<0.005	0.01	0.01
Total	***0.08***	***0.7***	***1.01***	***<0.02***	***0.04***	***0.04***
Estimated Unmitigated Average Daily Construction Emissions (Pounds/Day)						
Average (assuming 262 construction days)	0.61	5.34	7.70	<0.15	0.31	0.31
BAAQMD Emissions Threshold	54	54	-	-	82 (exhaust)	54 (exhaust)
Threshold Exceeded?	**No**	**No**	**-**	**-**	**No**	**No**

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact with Mitigation Incorporated

Construction equipment and heavy-duty truck operation associated with construction activities generate toxic air contaminants (TACs) in the form of diesel exhaust and fugitive dust. There are sensitive receptors (e.g., schools, playgrounds, and residences) located immediately adjacent to the project alignment. These sensitive receptors are assumed to be present and exposed during project construction, which would last for approximately 262 days spanning over four years. Due to the proximity of sensitive receptors to the project site, the construction activities are considered to result in potentially significant impacts in terms of excess cancer risk to any sensitive receptors present or increased $PM_{2.5}$ concentrations caused by construction equipment and traffic exhaust and fugitive dust. Mitigation Measure AIR-1 requires implementation of fugitive dust control measures. Mitigation Measure AIR-2 requires the use of low diesel particulate matter engine for construction equipment. Implementation of Mitigation Measures AIR-1 and AIR-2 would reduce construction emissions to sensitive receptors to a less-than-significant level.

After construction, the operation of the project would be similar to existing maintenance activities, resulting in no measurable change in TAC emissions associated with those activities. Impacts to sensitive receptors would be less than significant.

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

Less than Significant Impact

Construction activities would involve the use of gasoline- or diesel-powered equipment that emit exhaust fumes. These activities would take place intermittently throughout the workday and the associated odors are expected to dissipate within the immediate vicinity of the work area. Persons near the construction work area may find these odors objectionable; however, the project would not include uses that have been identified as potential sources of objectionable odors, such as restaurants, manufacturing plants, landfills, and agricultural and industrial operations.

Built up gases and odors from the sewer lines are generally considered unpleasant. There is a potential for odors to be released creating a temporary nuisance in the immediate vicinity of construction activities during removal of existing sewer lines. However, this nuisance would be temporary and would dissipate once the exposed pipeline is removed from the area. The infrequency of the emissions, rapid dissipation of the exhaust, sewer odors, and other odors into the air, and short-term nature of the construction activities would result in less than significant odor impact.

During operation, no odor impacts associated with the sewer main would be expected as long as the system is properly maintained. The impact would be less than significant.

MITIGATION MEASURES

Mitigation Measure AIR-1: Fugitive Dust Measures

To limit dust, criteria pollutants, and precursor emission associated with construction, the following BAAQMD-recommended fugitive dust control measures shall be implemented and included in all contract specifications for components constructed under the project:

- All exposed surfaces (e.g., unpaved parking areas, unpaved staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxic control measure Title 13, Section 2485 of California Code of Regulation). Clear signage shall be provided for construction workers at all access points.
- Construction equipment shall be properly maintained by a certified mechanic.
- A publicly visible sign shall be posted with the telephone number and the person to contact at the City regarding dust complaints. This person shall respond and take corrective action within 48 hours. The BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

Mitigation Measure AIR-2: Engine Controls for Construction Equipment

- For equipment used during the site preparation and grading activities, diesel-powered off-road equipment, greater than 25 horsepower, operating on the site for more than two days continuously shall, at a minimum, meet the U.S. Environmental Protection Agency (USEPA) particulate matter emissions standards for Tier 4 engines. Equipment that is electrically powered or uses non-diesel fuels would meet this requirement.
- For the remaining phases, diesel-powered off-road equipment, greater than 25 horsepower, operating on the site for more than two days continuously shall, at a minimum, meet USEPA particulate matter emission standards for Tier 3 engines with CARB-certified Level 3 Diesel Particulate Filters or equivalent. The use of equipment meeting USEPA Tier 4 standards for particulate matter would also meet this requirement. Alternatively, the use of equipment that includes electric or alternatively fueled equipment (i.e., non-diesel) would meet this requirement.
- Portable equipment (i.e., air compressors, cement and mortar mixers, and concrete/industrial saws) shall be electrically powered.

4.2.4 Biological Resources

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

On May 27, 2021, WRA, Inc. (WRA) biologists conducted surveys within the project site to map vegetation, unvegetated land cover types, document plant and wildlife species presence, and evaluate habitat for the potential to support special-status species as defined by CEQA. The research and survey methodology and results of these surveys are summarized in the following sections. Information in this section relies on the Biological Resources Technical Report (BRTR, Appendix B) prepared by WRA biologists in July 2021 (WRA, 2021).

REGULATORY BACKGROUND

Endangered and Threatened Plants, Fish, and Wildlife: Specific species of plants, fish, and wildlife may be designated as threatened or endangered by the federal Endangered Species Act (ESA), or the California Endangered Species Act (CESA). Specific protections and permitting mechanisms for these species differ under each of these acts, and a species' designation under one law does not automatically provide protection under the other.

The ESA (16 USC 1531 et seq.) is implemented by the USFWS and the National Marine Fisheries Service (NMFS). The USFWS and NMFS maintain lists of "endangered" and "threatened" plant and animal species (referred to as "listed species"). "Proposed" or "candidate" species are those that are being considered for listing and are not protected until they are formally listed as threatened or endangered. Under the ESA, authorization must be obtained from the USFWS or NMFS prior to take of any listed species. Take under the ESA is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Take under the ESA includes direct injury or mortality to individuals, disruptions in normal behavioral patterns resulting from factors such as noise and visual disturbance and impacts to habitat for listed species. Actions that may result in "take" of an ESA-listed species may obtain a permit under ESA Section 10, or via the interagency consultation described in ESA Section 7. Federally listed plant species are only protected when take occurs on federal land.

The ESA also provides for designation of critical habitat, which are specific geographic areas containing physical or biological features "essential to the conservation of the species." Protections afforded to designated critical habitat apply only to actions that are funded, permitted, or carried out by federal agencies. Critical habitat designations do not affect activities by private landowners if there is no other federal agency involvement.

The CESA (CFGC 2050 et seq.) prohibits a "take" of any plant and animal species that the California Fish and Game Commission determines to be an endangered or threatened species in California. CESA regulations include take protection for threatened and endangered plants on private lands, as well as extending this protection to "candidate species" which are proposed for listing as threatened or endangered under CESA. The definition of a "take" under CESA ("hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") only applies to direct impact to individuals, and does not extend to habitat impacts or harassment. The CDFW may issue an Incidental Take Permit under CESA to authorize take if it is incidental to otherwise lawful activity and if specific criteria are met. Take of these species is also authorized if the geographic area is covered by a Natural Community Conservation Plan (NCCP), as long as the NCCP covers that activity.

Sensitive Natural Communities: Sensitive natural communities include habitats that fulfill special functions or have special values. Natural communities considered sensitive are those identified in local or regional plans, policies, regulations, or by the CDFW. CDFW ranks sensitive communities as "threatened" or "very threatened" (California Department of Fish and Wildlife, 2021) and keeps records of their occurrences in its California Natural Diversity Database (California Department of Fish and Game, 2021). California Natural Diversity Database (CNDDB) vegetation alliances are ranked 1 through 5 based on NatureServe's methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive. Impacts to sensitive natural communities identified in local or regional plans, policies, or regulations or those identified by the CDFW or USFWS must be considered and evaluated under CEQA (California Code of Regulation [CCR] Title 14, Div. 6, Chap. 3, Appendix G). In addition, this general class includes oak woodlands that are protected by local ordinances under the Oak Woodlands Protection Act.

Waters of the United States and Waters of the State, Including Wetlands: The U.S. Army Corps of Engineers (Corps) regulates “Waters of the United States” under Section 404 of the Clean Water Act (CWA). Waters of the United States are defined in the Code of Federal Regulations (CFR) as including the territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, such as tributaries, lakes and ponds, impoundments of waters of the U.S., and wetlands that are hydrologically connected with these navigable features (33 CFR 328.3). Potential wetland areas, according to the three criteria used to delineate wetlands as defined in the Corps Wetlands Delineation Manual (Enviornmental Labratory, 1987), are identified by the presence of (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. The placement of fill material into Waters of the United States generally requires a permit from the Corps under Section 404 of the CWA.

The term “Waters of the State” is defined by the Porter-Cologne Water Quality Control Act as “any surface water or groundwater, including saline waters, within the boundaries of the state.” The State Water Resources Control Board (SWRCB) and nine RWQCB protect waters within this broad regulatory scope through many different regulatory programs. Waters of the State in the context of a CEQA Biological Resources evaluation include wetlands and other surface waters protected by the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. The SWRCB and RWQCB issue permits for the discharge of fill material into surface waters through the State Water Quality Certification Program, which fulfills requirements of Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. Projects that require a CWA permit are also required to obtain a Water Quality Certification

Sections 1600-1616 of California Fish and Game Code: Streams and lakes, as habitat for fish and wildlife species, are regulated by CDFW under Sections 1600-1616 of California Fish and Game Code (CFGC). Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. The term “stream,” which includes creeks and rivers, is defined in the CCR as “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life [including] watercourses having a surface or subsurface flow that supports or has supported riparian vegetation” (14 CCR 1.72). The term “stream” can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent

terrestrial wildlife (California Department of Fish and Game, 1994). Riparian vegetation has been defined as "vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself" (California Department of Fish and Game, 1994). Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from the CDFW.

Fully Protected Species and Designated Rare Plant Species: This category includes specific plant and wildlife species that are designated in the CFGC as protected even if not listed under CESA or the ESA. Fully Protected Species includes specific lists of birds, mammals, reptiles, amphibians, and fish designated in the CFGC. Fully protected species may not be taken or possessed at any time. No licenses or permits may be issued for the take of fully protected species, except for necessary scientific research and conservation purposes. The definition of "take" is the same under the CFGC and the CESA.

Special Protections for Nesting Birds and Bats: The federal Bald and Golden Eagle Protection Act provides relatively broad protections to both of North America's eagle species (bald [Haliaeetus leucocephalus] and golden eagle [*Aquila chrysaetos*]) that in some regards are similar to those provided by the ESA. In addition to regulations for special-status species, most native birds in the U.S., including non-status species, have baseline legal protections under the Migratory Bird Treaty Act of 1918 (MBTA) and CFGC, i.e., Sections 3503, 3503.5 and 3513. Under these laws/codes, the harm or collection of adult birds as well as the collection or destruction of active nests, eggs, and young is illegal. For bat species, the Western Bat Working Group designates conservation status for species of bats, and those with a high or medium-high priority are typically given special consideration under CEQA (Western Bat Working Group, 2021).

Species of Special Concern, Movement Corridors, and Other Special Status Species under CEQA: To address additional species protections afforded under CEQA, the CDFW has developed a list of special species as "a general term that refers to all of the taxa the CNDDB is interested in tracking, regardless of their legal or protection status." This list includes lists developed by other organizations, including for example, the Audubon Watch List Species, the Bureau of Land Management Sensitive Species, and USFWS Birds of Special Concern. Plant species on the California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (Inventory) with California Rare Plant Ranks (Rank) of 1, 2, and 3 are also considered special-status plant species and must be considered under CEQA. Rank 4 species are typically only afforded protection under CEQA when such species are particularly unique to the locale (e.g., range limit, low abundance/low frequency, limited habitat) or are otherwise considered locally rare. Additionally, any species listed as sensitive within local plans, policies and ordinances are likewise considered sensitive. Movement and migratory corridors for native wildlife (including aquatic corridors) as well as wildlife nursery sites are given special consideration under CEQA.

***City of Los Altos Tree* Ordinance:** The City of Los Altos has a tree protection ordinance (Municipal Code Section 11.08.010) for any tree greater than 48 inches in circumference, any tree designated as a heritage tree, and/or any tree required by the city to be saved or planted in conjunction with a development review application. Prior to removing a protected tree, a tree removal permit must be obtained.

City of Los Altos Guidelines and Standards for Land Use Near Streams: The City of Los Altos adopted the Water Resources Protection Collaborative Guidelines and Standards for Land Use Near Streams in 2007 (Santa Clara Valley Water Resources Protection Collaborative, 2006). This document includes design guidelines for streamside development, including utility crossings.

Town of Los Altos Hills Tree Ordinance: Los Altos Hills regulates the removal of Heritage Oaks (Municipal Code Section 120-2.101). Heritage Oaks include any tree in the genus Quercus that is greater than or equal to 36 inches in circumference. In order to remove a Heritage Oak, a permit must be obtained, and a permit fee must be paid.

Town of Los Altos Hills General Plan: The Los Altos Hills General Plan was adopted in 2007 and establishes a framework for community development (Town of Los Altos Hills, 2007). The General Plan Chapter 4 includes guidelines on creeks and riparian corridors, trees and plants, wildlife species and habitat, and water resources.

Oak Woodland Conservation Act: Under the California Oak Woodlands Conservation Act, impacts to oak woodlands receive consideration under CEQA regardless of whether or not the woodland is composed of oak (*Quercus spp*.) vegetation types considered to be sensitive by the CDFW. California Public Resources Code 21083.4 requires each county in California to implement an oak woodland protection policy to mitigate the loss of oak woodlands resultant from approved projects within their jurisdiction. In this policy, oak trees are defined as all native species of oaks larger than 5 inches diameter-at-breast height, or 4.5 feet above grade). At least one of four mitigation alternatives for significant conversions of oak woodlands are required in this regulation: 1) conserve oak woodlands through the use of a conservation easement, 2) plant an appropriate number of trees, including maintaining plantings and replacing dead or diseased trees, 3) contribute funds to the Oak Woodlands Conservation Fund, as established under Section 1363 (a) of the Fish and Game Code, and 4) other mitigation measures developed by the County.

METHODOLOGY

On May 27, 2021, WRA biologists visited the project area to map vegetation, aquatic communities, and unvegetated land cover types, to document plant and wildlife species present, and to evaluate habitat for the potential to support special-status species as defined by CEQA. The mapped land covers are demonstrated in Figure 6. Prior to the site visit, WRA biologists reviewed literature resources and performed database searches to assess the potential for sensitive biological communities (e.g., wetlands) and special-status species (e.g., endangered plants, locally rare species), including:

- California Soil Resources Laboratory (CSRL) online soil viewer (California Soil Resources Lab, 2021)
- Big Basin, Castle Rock Ridge, Cupertino, Los Gatos, Milpitas, Mindego Hill, Mountain View, Palo Alto, and San Jose West 7.5-minute quadrangles (U.S. Geological Survey, 2021)
- Contemporary aerial photographs (Google Earth, 2021)
- National Wetlands Inventory (USFWS, 2021)
- California Aquatic Resources Inventory (SFEI, 2021)
- California Natural Diversity Database (CDFW, 2021)

- California Native Plant Society Electronic Inventory (CNPS, 2021)
- Consortium of California Herbaria (Consortium of California Herbaria, 2021)
- USFWS Information for Planning and Conservation Database (USFWS, 2021)
- eBird Online Database (eBird, 2021)
- CDFW Publication, California Bird Species of Special Concern in California (Shuford, 2008)
- CDFW and University of California Press publication California Amphibian and Reptile Species of Special Concern (Thomson, 2016)
- A Field Guide to Western Reptiles and Amphibians (Stebbins, 2003)
- A Manual of California Vegetation, 2nd Edition (Sawyer, 2009)
- A Manual of California Vegetation Online (CNPS, 2021)
- Preliminary Descriptions of the Terrestrial Natural Communities (Holland, 1986)

Database searches (i.e., CNDDB, CNPS) focused on the *Big Basin, Castle Rock Ridge, Cupertino, Los Gatos, Milpitas, Mindego Hill, Mountain View, Palo Alto,* and *San Jose West* USGS 7.5-minute quadrangles for special-status plants and special-status wildlife species. Following the remote assessment, WRA biologists completed a field review over the course of one day to document: (1) land cover types (e.g., terrestrial communities and aquatic resources), (2) existing conditions to determine if such conditions provide suitable habitat for any special-status plant or wildlife species, (3) if and what type of aquatic natural communities (e.g., wetlands) are present, and (4) if special-status species are present.



Path: L:\Acad 2000 Files\30000\30194\GIS\ArcMap\30194Base\30194Base.aprx Layout Name: CEQA_Fig5_LandCover_20230628

Sources: USDA NAIP Imagery 2020, WRA | Prepared By: kobylarz, 1/23/2024

Figure 6. Land Cover Types within the Project Site

Adobe Creek Sewer Main Replacement Project
Los Altos, California

0 200 400 Feet

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wra Environmental Consultants

DISCUSSION OF IMPACTS

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS)?

Less than Significant with Mitigation Incorporated

Special-Status Plants

Based upon a review of the resource databases listed in the Methodology Section above, 84 special-status plant species have been documented in the vicinity of the project site. One of these species, western leatherwood (*Dirca occidentalis*) was determined to have a moderate potential to occur within the project site. Western leatherwood is a native shrub in the Thymelaeaceae family that blooms from January through March. It typically grows on north or northeast facing slopes in mixed evergreen forests. It is often found in riparian habitat. Though the project area contains suitable habitat for this species, there are no records of this species within three miles of the project site (California Department of Fish and Game, 2021).

WRA biologists did not observe any special-status plant species during the May 27, 2021 site visit. The remaining species documented in the greater vicinity are unlikely or have no potential to occur due to hydrologic, topographic, or unique pH conditions, presence of edaphic soils, absence of associated natural communities, or the elevation of the project site relative to the documented range of the special-status plant species.

While no western leatherwood plants were observed during site visit, it is possible that this species could occur during project construction. Construction activities, such as trenching and pedestrian or vehicle traffic, have the potential to damage or destroy special-status plant population, if present. Disturbance of special-status plant individuals, if present at the project site, would be a significant impact. Mitigation Measure BIO-1 requires the City to confirm the presence or absence of western leatherwood within the project area prior to project implementation and minimize potential impacts to this species. With the implementation of Mitigation Measure BIO-1, impacts to special-status plant species would be less than significant.

Special-Status Wildlife

Of the 48 special-status wildlife species documented in the vicinity of the project site, most are unlikely to occur in the project site based on lack of habitat features (CNDDB; CDFW 2021). Features not found within the project site that are required to support special-status species include:

- Tidal marsh areas
- Sandy dunes or friable soils
- Old growth conifers or mature dense forest
- Sandy beaches or alkaline flats
- Presence of specific host plants

- Cliffs, caves, mines, or abandoned buildings
- Estuaries or brackish waters

A total of three special-status wildlife species were determined to have moderate or high potential to occur within the project site: pallid bat (*Antrozous pallidus*), western pond turtle (WPT; *Actinemys [Emys] marmorata*), and San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*). Potential impacts to these species are described in further detail below. In addition, native nesting birds protected by the CFGC may nest within the project site. The project site is not located within any designated critical habitat for any of these special-status wildlife species.

Roosting bats

Special-status (pallid bat) and non-status bat species have potential to roost within the project site. Direct impacts to roosting special-status bat species could occur if there is the removal or modification of large trees (diameter-at-breast height >16 inches) or snags. No habitat suitable for maternity roosting was observed within the project site. Day or night-roosting bats may utilize larger trees (>16 inches) within the project site. Implementation of Mitigation Measure BIO-2 would protect roosting bats, including the pallid bat. Impacts would be less than significant with mitigation incorporated.

Nesting birds

Non-status bird species protected under the CFCG may use the project site for nesting. Vegetation removal and ground disturbance activities could impact nesting birds (including active nests with eggs or young) either directly or indirectly through noise or visual disturbance. Direct or indirect impacts to nesting birds would be potentially significant. Mitigation Measure BIO-3 requires a pre-construction nesting bird survey if work were to occur during nesting season (February 1 to August 31) and requires avoidance of active nests, if present. Implementation of Mitigation Measure BIO-3 would protect nesting birds and reduce impact to a less-than-significant level. Impacts would be less than significant with mitigation incorporated.

Western pond turtle

If project work occurs when Adobe Creek is flowing or ponded, western pond turtle (WPT) may be present. Ground disturbing activities and operation of heavy equipment during vegetation removal, trench excavation, and removal of pipeline could directly impact WPT if they occur in the area. Impacts to WTP could be potentially significant. Mitigation Measure BIO-4 requires ground disturbance activities and vegetation removal to occur during summer months and requires a qualified biologist to provide additional measures to avoid to the species. Impacts to WPT would be less than significant with implementation of Mitigation Measure BIO-4.

San Francisco dusky-footed woodrat

Portions of the project site contains moderate understory that could support San Francisco dusky-footed woodrat. Two woodrat structures were observed in the southern portion of the project site. Project activities that require ground disturbance or vegetation removal in riparian areas could result in direct mortality or injury to San Francisco dusky-footed woodrat if they occur in the area. Impacts to San Francisco dusky-footed woodrat could be potentially significant. Mitigation

Measure BIO-5 requires a pre-construction survey for woodrat structures and requires implementation of measures to minimize or avoid impacts to woodrat. Impacts would be less than significant with implementation of Mitigation Measure BIO-5.

Project impacts to special-status wildlife species would be reduced to a less-than-significant level with implementation of Mitigation Measures BIO-2, BIO-3, BIO-4, and BIO-5 wildlife species.

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 CDFW or USFWS?

Less than Significant Impact

The project site contains sensitive biological communities, including an intermittent stream (Adobe Creek) and its associated mixed riparian woodland habitat. Approximately 0.82 acre (3,319 linear feet) of intermittent stream and 6.45 acres of mixed riparian woodland occur within the project site.

Adobe Creek originates from higher elevations on Black Mountain in Santa Clara County and conveys stormwater flows north eventually flowing into the San Francisco Bay. Adobe Creek is considered a water of the U.S./State, thus certain permits from the Corps, RWQCB, or CDFW may be necessary. If the project required in-water work below the ordinary high water mark (OHWM), a Section 404 permit from the Corps (likely a nationwide permit) would have to be obtained. However, the project has been designed specifically to avoid impacts below the OHWM. Thus, a Corps permit will not be necessary.

If the project requires work below top of bank (TOB), a Section 401 water quality certification from the RWQCB would be obtained. All staging and access areas have been moved to above TOB to avoid impacts to waters of the State. However, because the pipe reaming will involve pipes that are buried beneath Adobe Creek, a RWQCB permit will be necessary, even though there will be no discharge into waters of the State.

Any work conducted below the top of bank of the intermittent stream or any impacts to the mixed riparian habitat (extending out to the outer dripline of riparian vegetation), would require a Section 1602 Lake and Streambed Alteration Agreement from the CDFW. There would be 0.23 acre of temporary impacts to riparian habitat from the project. All of these temporary impacts would be mitigated through re-seeding and planting impacted areas with native plants appropriate to these areas. CDFW requires a 1:1 ratio for mitigation of temporary impacts.

The City would be required to obtain the necessary permits, as well as implement Best Management Practices (BMPs) and conservation measures included in the permits. The project cannot be constructed without these agency approvals. Obtaining the necessary permits and implementation of BMPS and conservation measures included in the permits would ensure that significant impacts would be avoided. Therefore, the impacts to riparian habitats and other sensitive natural communities would be less than significant.

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?

No Impact

The project site was reviewed for the presence of wetlands according to the methods described in the U.S. Army Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West (U.S. Army Corps of Engineers, 2008). No state or federally protected wetlands were identified on the project site. Therefore, no impact would occur.

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?

Less than Significant Impact

Wildlife movement between suitable habitat areas can occur via open space areas lacking substantial barriers. To account for potential impacts to wildlife movement/migratory corridors, biologists reviewed maps from the California Essential Connectivity Project (CalTrans, 2010), and habitat connectivity data available through the CDFW Biogeographic Information and Observation System (BIOS) (Gogol-Prokurat, 2014). Additionally, aerial imagery (Google Earth, 2021) for the local area was referenced to assess if local core habitat areas were present within/or connected to the project site. This assessment was refined based on observations of on-site physical and/or biological conditions, including topographic and vegetative factors that can facilitate wildlife movement, as well as on-site and off-site barriers to connectivity.

The project site is not within a designated wildlife corridor (Gogol-Prokurat, 2014; Spencer, 2010). Given the location of the project site within a greater urban area, the project site does not serve to link two areas of core habitat. The project site is not known to support a native nursery or nesting site, such as colonial bird nesting or colonial roosting. Adobe Creek likely facilitates movement of some local wildlife species. As discussed in Impact b) above, the City would be required to obtain all necessary permits relating to discharge or disturbance of the intermittent stream and implement BMPs and measures to reduce impacts to water quality. There would be no discharge below OHWM or TOB; thus, wildlife movement within Adobe Creek would not be impeded. Complying with BMPs and conservation measures required by the permits, significant impacts to the intermittent stream would be avoided. Project operation would not impact movement of any wildlife species because the replaced sewer main would be located underground. Therefore, the project would not interfere substantially with the movement of these species during construction or operation. The impact would be considered less than significant.

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

Less than Significant Impact with Mitigation Incorporated

Portions of the project site are subject to local policies, ordinances, and plans by the City of Los Altos, the Town of Los Altos Hills, and the State of California.

The project site contains trees that are considered Protected and/or Heritage Trees per the LAMC or the LAHMC. According to the Arborist Survey prepared by WRA in 2023, the project would

require the removal of 33 Protected Trees. Prior to the removal of trees that meet the Protected Tree criteria, a permit must be obtained from the City of Los Altos or Los Altos Hills. In addition, removal of Protected Trees shall be mitigated through replacement and restoration according to the Tree Ordinances and approval by the City, Town, and/or CDFW. Replacement of Protected Trees is described in detail in Mitigation Measure BIO-6, which would be implemented by the project applicant.

Of those 33 Protected Trees, 17 would be impacted by the project, four of which are situated below the TOB. These trees would be preserved by the implementation of Mitigation Measure BIO-7, which includes tree protection measures.

The City of Los Altos adopted Guidelines and Standards for Land Use Near Streams, which includes guidelines for utility crossings. Section VIII.B describes design criteria for utility pipes that must go under streams including drilling depth below the channel. The project would comply with these guidelines when working near streams in order to receive a development permit from the City.

The Los Altos Hills General Plan contains policies on creeks and riparian corridors, trees and plants, wildlife species and habitat, and water resources. The project would not conflict with any of the policies outlined in this plan during construction or operation.

Prior to construction, the project would obtain the necessary permits for tree removal and comply with design guidelines for utility pipes under stream crossings as designated by the City of Los Altos. The project would not conflict with any local policies or ordinances protecting biological resources during operation. The impact would be considered less than significant.

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?

No Impact

The project site is not included within a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, no impact to any Habitat Conservation Plan would result from the project.

MITIGATION MEASURES

Mitigation Measure BIO-1: Rare Plant Surveys

Prior to the implementation of the project, protocol-level rare plant surveys shall be conducted during the peak bloom periods (January through March) of western leatherwood to determine species presence or absence within the project's limit of disturbance. These surveys would not need to be conducted across the entire project site. Rather, targeted surveys shall be conducted where suitable habitat (mixed riparian woodland) intersects with the project's limit of disturbance and within proposed areas of disturbance. If special-status plant species are located during protocol-level surveys, appropriate avoidance and minimization measures shall be adopted. If impacts to such species cannot be avoided, mitigation measures, such as seed collection, planting (for annuals and bi-annuals), or transplantation (perennials), shall be warranted.

BIO-1(a) If the special-status plant species are not observed during the focused plant surveys, no impact to special-status plant species would occur, and no mitigation would be required. The results of the surveys shall be submitted to the City's Planning Department.

BIO-1(b) If special-status plants are identified on-site during the focused plant surveys, the project applicant shall be responsible for ensuring project activities avoid special-status plants through preparation and submittal to the City's Planning Department of an Avoidance Plan Report detailing protection and avoidance criteria, measures, and the extent to which special-status plants were successfully avoided. The Avoidance Plan Report shall be subject to verification from the City's Planning Department.

BIO-1(c) If avoidance is infeasible, the qualified biologist shall ensure seed collection for affected special-status plants is completed and plants are re-established at a minimum of a one-to-one ratio (number of newly established plants relative to the number of plants impacted) in a preserved, suitable habitat approved by City. The project applicant shall document and submit proof of compliance to the City's Planning Department.

BIO-1(d) Re-established special-status plant populations shall be monitored annually by the project applicant in accordance with an approved Habitat Mitigation and Monitoring Plan (HMMP) prepared in consultation with the City's Planning Department, with annual monitoring taking place for a minimum of five years.

The HMMP shall include criteria, subject to approval by all applicable agencies, including the City's Planning Department, USFWS, and CDFW, detailing the survival ratio required of re-established populations and performance standards for further replanting for any re-established special-status plant species that do not survive. Reports describing performance results shall be prepared and submitted for years one, three, and five of the monitoring period.

Mitigation Measure BIO-2: Removal of Large Trees

If large trees (diameter-at-breast height >16 inches) are to be removed; and:

a) if the tree has no potential to support roosting bats (e.g. no large basal cavities, exfoliating bark, or interstitial spaces, or suitable foliage), the tree may be removed with no further measures required to protect roosting bats; or
b) if potential bat habitat is present, and work is occurring outside the maternity season, the qualified biologist may either 1.) Conduct an emergence survey to determine if the roost is occupied; or 2.) The tree may be felled using a two-phased cut.
    i) If the emergence survey confirms the roost is inactive, the tree may be felled normally.
    ii) If the roost is confirmed active, or is assumed to be active, a two-phased cut shall be employed to remove the tree. On day one the qualified biologist shall oversee removal of branches and small limbs not containing potential bat roost habitat (including large basal cavities, exfoliating bark, interstitial spaces, and suitable foliage) using hand tools such as chainsaws or handsaws only. The next day, the rest of the tree may be removed.

Mitigation Measure BIO-3: Pre-construction Nesting Bird Surveys and Protective Buffers

If vegetation removal or initial ground disturbance activities occur during the nesting season, defined as February 1 through August 31, then a pre-construction nesting bird survey within the work area shall be completed by a biologist no more than 14 days prior to the start of work.

Additionally, if active nests (nests with eggs and/or chicks) are observed during the pre-construction survey, project activities shall avoid the area as determined by the biologist and resume the protective buffer only after the young have fledged the nest or the nest otherwise becomes inactive. Buffer size shall be determined by the biologist based on species, nest location, planned disturbance footprint, and presence of any visual or auditory buffers. Buffers for golden eagle may be up to 0.5 mile.

Mitigation Measure BIO-4: Pre-construction Surveys for Western Pond Turtle

Ground disturbance and vegetation removal shall occur during the summer months. If ground disturbance within 300 feet of Adobe Creek occurs when Adobe Creek is flowing or ponded, pre-construction surveys shall be conducted within 48 hours of initial ground disturbance. If western pond turtle is observed, the biologists shall provide measures to avoid directly impacting the species based on the planned work; such measures may include a protective no work buffer, exclusion fencing, or monitoring.

Mitigation Measure BIO-5: Pre-construction Surveys for San Francisco Dusky Footed Woodrat

Prior to vegetation removal and/or ground disturbance within suitable habitat, a pre-construction survey for woodrat structures/houses shall be conducted by a qualified biologist. Any woodrat structures found during the survey shall be flagged and avoided to the maximum extent feasible. If avoidance is not possible, then structures to be impacted shall be dismantled by hand under the supervision of a qualified biologist. If woodrat young are encountered during the dismantling process, the material shall be placed back on the house, and a work exclusion buffer of at least 50 feet placed around the structure. The structure shall remain untouched for at least two weeks to allow the young to mature and leave the nest of their own accord. After the avoidance period, the nest dismantling process may begin again. Nest material shall then be moved to adjacent vegetated areas that will not be disturbed.

Mitigation Measure BIO-6 Replacement of Protected Trees
Removal of Protected Trees shall be mitigated through replacement and restoration according to the Tree Ordinances and approval of the City or Town and/or CDFW. Replacement ratios for the project, whether in riparian areas or not, shall use mitigation ratios equivalent or greater than those used by CDFW in riparian areas:

- 1:1 for removal of non-native trees;
- 1:1 for removal of native trees up to 3 inches DBH;
- 3:1 for removal of native trees 4 to 6 inches DBH;
- 6:1 for removal of native trees greater than 6 inches DBH;
- 4:1 for removal of native oak (Quercus sp.) up to 6 inches;
- 5:1 for removal of native oak trees between 7 and 15 inches DBH; and
- 10:1 for removal of native oak trees greater than 15 inches DBH.

Mitigation trees shall be planted outside of the proposed staging areas after project completion. Trees shall not be planted in a way that may interfere with future sewer work or within the footprint of current sewer lines. Trees removed from private property shall be replaced accordingly and, in a manner amenable with the property owner. Tree replacement shall occur in appropriate areas along the Adobe Creek corridor within Bicentennial Park, Shoup Park, Redwood Grove Nature Preserve, or another area amenable with the City of Los Altos, the Town of Los Altos Hills, and CDFW.

Mitigation Measure BIO-7: Tree Protection Measures

In order to avoid and minimize damage to existing trees which are all planned to be preserved, the following measures shall be part of the pre-construction training given by either Project manager or Project Arborist. The measures shall be implemented during construction:

- Protective fencing shall be installed no closer to the trunk than the dripline or RPZ, and far enough from the trunk to protect the integrity of the tree. Exception to this standard could be considered on a case-by-case basis, provided that it is demonstrated that an encroachment into the RPZ will not affect the root system or the health of the tree and is authorized by an ISA-Certified Arborist. As construction activity will be necessary within the RPZs of a number of trees, an ISA-Certified Arborist shall be retained to determine exceptions to the rule. The fence shall be a minimum of four feet in height and shall be set securely in place. The fence shall be of a sturdy but open material (i.e., chainlink), to allow visibility to the trunk for inspections and safety. There shall be no storage of any kind within the protective fencing.
- All construction activity (grading, filling, paving, landscaping etc.) shall respect the RPZ around all trees within the vicinity of the project site.
- The fence shall be clearly marked to prevent inadvertent encroachment by heavy machinery.
- Drainage will not be allowed to pond around the base of any tree.
- Construction materials shall be properly stored away from existing trees to avoid spillage or damage to trees.
- Trees to be retained may require pruning to provide clearance and/or correct defects in structure. All pruning is to be performed by an ISA-Certified Arborist or Certified Tree Worker and shall adhere to the latest editions of the American National Standards Institute (ANSI) Z133 and A300 standards as well as the ISA Best Management Practices (BMPs) for Tree Pruning. The pruning contractor shall have the C25/D61 license specification.
- If any roots are exposed as a result of construction activities, they shall be covered with wet burlap to avoid desiccation and should be buried as soon as practicable.
- Construction materials or heavy equipment shall not be stored within the RPZ.
- Only an ISA-Certified Arborist will make specific recommendations as to where any existing trees can safely tolerate some level of fill or impacts within the dripline.
- Where trenches cannot be placed outside of the RPZ, nor bored under the roots, use hydro-excavation, pneumatic excavation (air knife or air spade) or hand digging in accordance with ANSI A3400 Part 8 under the supervision of an ISA-Certified Arborist.

- Through careful excavation and exposure of roots, it may be possible to route pipes avoiding or minimizing impacts to roots. The exposure time of roots to air shall be minimized to prevent root desiccation and death.
- No roots larger than 2 inches in diameter are to be cut without the recommendation of an ISA-Certified Arborist.
- Roots requiring cutting shall be done so under the recommendation and supervision of an ISA-Certified Arborist with sterilized equipment to prevent the spread of disease to the affected trees.
- A tree removal permit shall be obtained from the City of Los Altos or Town of Los Altos Hills for removal of any existing protected trees.
- Care will be taken to avoid injury to the trunks or branches of the trees. If the canopy of any of the trees needs to be raised, the City or Town will be notified. With approval, trees will be pruned for the minimum clearance required under ISA-Certified Arborist supervision.
- All impacts to trees will be documented by the project Arborist and submitted to the City or Town.
- As an option, establish an incentive program in the construction contract to encourage workers to maximize caution when working near trees (such as a fine for each damaged tree or subtract the fine from a bonus to be divided among all construction workers at the end of the project).
- Alternate methods to the standards above that are recommended by the Arborist may be implemented.

4.2.5 Cultural Resources

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

Tom Origer & Associates (Origer) prepared a Cultural Resources Study for the project in April 2023 (Barrow, 2023). The study was conducted to meet the requirements of the City and of CEQA, and to identify potential historical resources other than Tribal Cultural Resources, as defined in Public Resources Code 21074 (a)(1)(A)-(B), in the project vicinity. The study included archival research at the Northwest Information Center, Sonoma State University, examination of the library and files of Origer, Native American contact, and a field survey of the project site. Information in this section is adapted from and relies on the Cultural Resources Study. The study is available for review at the City by qualified individuals only.

ENVIRONMENTAL SETTING

Native peoples have occupied the northern San Francisco Bay region for over 11,000 years (Fredrickson 1973). Early occupants appear to have had an economy based largely on hunting, with limited exchange, and social structures based on the extended family unit. Later, milling technology and an inferred acorn economy were introduced. This diversification of economy appears to be coeval with the development of sedentism and population growth and expansion. Sociopolitical complexity and status distinctions based on wealth are also observable in the archaeological record, as evidenced by an increased range and distribution of trade goods (e.g., shell beads, obsidian tool stone), which are possible indicators of both status and increasingly complex exchange systems.

Historically, the project sites lies partially within the Public Lands of Santa Clara County and partially within the Rancho La Purísima Concepcíon. The rancho measured approximately 4,400 acres in size and was granted by Governor Alvarado to José Gorgonio, an Ohlone who had been at Mission Santa Clara. Gorgonio had lived on the land with his son Jose Ramon prior to officially receiving it in 1840 but then sold it to Juana Briones de Miranda in 1844 (Hoover et al., 2005). In 1857, Juana Briones de Miranda sold her rancho to Martin Murphy Jr. Martin's daughter Elizabeth married William Post Taaffe in 1863 and Martin and his wife, Mary, gave the rancho to them as a

wedding present. The rancho passed to William and Elizabeth's children and over the years the property was subdivided and sold or lost to foreclosure (Atkins, 2016).

Lands east of Adobe Creek became public lands of the United States. By 1870, census data shows that the Diel family was living on the lands containing the project site. In 1888, Sara Winchester bought the property and allowed her sister Isabelle and brother-in-law Lewis Merriman to live there. In 1905, with the threat of the railroad bisecting the ranch, Ms. Winchester sold the entire ranch to the Southern Pacific Railroad (McDonald and Los Altos History Museum, 2010).

Paul Shoup and George Herbert became the owners of the lands and established the City of Los Altos (City of Los Altos, 2012). Paul Shoup's house is located within the project site and was constructed in 1910. This house is listed in the National Register of Historic Places for its association with Paul Shoup (Urbano, 2011).

Los Altos was largely a bedroom community for wealthy businessmen who commuted into San Francisco or San Jose. In some instances, the houses in Los Altos were second homes for the rich. Like many communities in the San Francisco Bay Area, after World War II, the explosion in population prompted development and Los Altos grew.

Historic site indicators generally include: fragments of glass, ceramic, and metal objects; milled and split lumber; and structure and feature remains such as building foundations and discrete trash deposits (e.g., wells, privy pits, dumps).

Cultural Resources Study Findings

Archival research indicated that portions of the project site have been previously subjected to cultural resources survey. In addition to the surveys conducted of portions of the project site, an historic resources inventory was conducted by the City of Los Altos to identify historical buildings within the City's limits. Eight studies have been conducted within a quarter mile of the project site. A total of 79 resources have been recorded within a quarter mile of the project site. Of these, 53 are buildings that contribute to the Orange/University Historic District. The remaining 25 resources are buildings and there is one prehistoric archeological site that lies 665 feet from the study area and does not have potential to extend into the project site. One bridge within the project site, located on W. Edith Avenue over Adobe Creek, was included in a Caltrans survey of bridges throughout California. The bridge was found to be ineligible for inclusion on the National Register. In 1907, the neighborhood now referred to as the Orange/University Historic District was laid out and subdivided. Houses were constructed the following year, though it appears that the earliest houses constructed as part of this subdivision built in the project site were in 1910 (Laffey, 1997).

A model for predicting a location's sensitivity for buried archaeological sites based on the age of the landform, slope, and proximity to water, was also used to determine sensitivity of the site for buried archaeological resources. The site was found to have a high potential for buried archaeological resources due to its proximity to a fresh water source and the age of the landform on which it is situated.

A mixed-strategy field survey was completed by Origer staff on April 5, 2023. Portions of the project site that were examined included areas that were publicly accessible and private properties where access was granted by the owner(s). The bank of Adobe Creek was also examined as much as possible to look for buried archaeological resources, as well as a trench

excavated by PG&E to a depth of 48 inches. No archaeological site indicators were observed during the course of the survey. There are several buildings and outbuildings that are located within the project site; however, they were not surveyed because the project plans do not include proposed alterations to any buildings or structures. The concrete bridge with concrete rails that carries Burke Road over Adobe Creek was constructed in 1913 and was documented by Origer staff. One private property owner of 232 Burke Road specifically pointed out and had concerns that a decorative concrete feature in his backyard could be damaged by the project. The property owner stated that the feature was there when he purchased the property, and it was a part of the original landscaping for the house.

DISCUSSION OF IMPACTS

a) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?

Less than Significant Impact

The Cultural Resources Study found that 79 historical resources were documented within one quarter mile of the project site. Of these, 53 are buildings that contribute to the Orange/University Historic District. The remaining 25 resources are buildings and there is one prehistoric archeological site that lies 665 feet from the study area and does not have potential to extend into the project site. Twelve resources were located within the project site, which include: nine buildings of the Orange/University Historic District, a building complex, and a single-family home. The project does not propose any alterations to buildings or structures, and the project would not impact any historical buildings within the project site.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?

Less than Significant with Mitigation Incorporated

The Cultural Resources Study found that one prehistoric archaeological site is located 665 feet from the project site and does not have the potential to extend into the project site. No archaeological site indicators were found within the project site during the course of the field survey. The project site was determined to have a high potential for buried archaeological resources due to its proximity to a fresh water source and the age of the landform upon which it lies. The City is required to implement Mitigation Measure CUL-1 pertaining to the accidental discovery of buried materials during project construction. With implementation of this mitigation measure, the impact would be less than significant.

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Less than Significant with Mitigation Incorporated

No human remains or archaeological site indicators were observed during the field survey conducted by Origer staff. The project would implement Mitigation Measure CUL-1 pertaining to the accidental discovery of buried materials on the project site. With implementation of this mitigation measure, the impact would be less than significant.

MITIGATION MEASURES

Mitigation Measure CUL-1: Construction Monitoring and Accidental Discovery of Archaeological Resources or Human Remains

Initial grading activities shall be monitored by the Tamien Nation and a qualified archaeologist. If archaeological remains are uncovered, work at the place of discovery shall be halted immediately until a qualified archaeologist can evaluate the finds as required by the CEQA Guidelines §15064.5(f). Prehistoric archaeological site indicators include: obsidian and chert flakes and chipped stone tools, grinding and mashing implements (e.g., slabs and handstones, and mortars and pestles), bedrock outcrops and boulders with mortar cups, and locally darkened midden soils. Midden soils may contain a combination of any previously listed items with the possible addition of bone and shell remains, and fire-affected stones. Historic period site indicators generally include: fragments of glass, ceramic, and metal objects; milled and split lumber; and structure and feature remains such as building foundations and discrete trash deposits.

If human remains are encountered, excavation or disturbance of the location shall be halted in the vicinity of the find, and the county coroner shall be contacted. If the coroner determines the remains are Native American, the coroner shall contact the NAHC. The NAHC shall identify the person or persons believed to be most likely descended from the deceased Native American. The most likely descendant shall make recommendations regarding the treatment of the remains with appropriate dignity.

4.2.6 Energy

Would the project:		*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a)	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b)	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

Power in the City of Los Altos is provided through Silicon Valley Clean Energy or Pacific Gas & Electric Company (PG&E). The City of Los Altos Climate Action and Adaptation Plan (CAAP) was adopted in March 2022 and outlines strategies, goals, and actions for the City to achieve carbon neutrality by 2035. Strategies outlined by the CAAP related to energy include reducing emissions from energy consumption, facilitating building decarbonization, increasing solar energy production, operating sustainable municipal buildings, and promoting green municipal practices. Goals set forth in the CAAP to support these strategies include:

- Encouraging energy conservation measures in homes and businesses,
- Requiring all-electric new buildings and major retrofits,
- Reducing or eliminating gas use in existing buildings by increasing fuel switching,
- Disincentivizing methane gas,
- Expanding community solar and battery storage,
- Reducing municipal building energy use by 30 percent by 2035,
- Promoting green municipal priorities.

The CAAP does not specifically address sewer infrastructure in the City.

The community-owned Silicon Valley Clean Energy (SVCE) is the electricity provider for the Town of Los Altos Hills. SVCE sources the electricity, and PG&E delivers it to customers over their existing utility lines. Customers are automatically enrolled in the GreenStart plan and can upgrade to the GreenPrime plan. Both options are considered 100 percent GHG-emission free. There are no existing sources of electricity to utilize for construction of the project. All electrical power used in the construction would likely be provided by gasoline or diesel generators.

DISCUSSION OF IMPACTS

a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant Impact

The project would include replacement of the Adobe Creek Sewer Main comprised of 53 sewer lines and totaling 6,580 linear feet. The project is not associated with any increased demand for energy, and would not generate any new source of wasteful, inefficient, or unnecessary energy consumption. The new sewer main would be a more efficient use of energy resources in the long-term because it would reduce the amount of necessary maintenance and repairs to the sewer lines. The construction process would be designed to be efficient in order to avoid excess monetary costs. That is, equipment and fuel would not be used wastefully on the site because of the added expense associated with renting, maintaining, and fueling equipment. Therefore, energy and fuel would not be wasted or used inefficiently by construction equipment and vehicles. The impact would be less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact

The City's CAAP established goals, policies, and procedures to reach carbon neutrality by 2035, which are described above (City of Los Altos, 2022). The project would not conflict with any strategies, goals, or actions described in this plan or any other state or local plan for renewable energy or energy efficiency. No impact would occur.

4.2.7 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?	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

ENVIRONMENTAL SETTING

The project site is located in the San Francisco – San Jose region of the Coast Range Geomorphic Province. The Coast Range Geologic Province borders the Coast of California and generally consists of northwesterly/southeasterly trending ridges of granitic, metavolcanic, and metasedimentary rocks. Numerous northwest to southeast trending faults parallel the trend of the Coast Ranges. The project area is underlain by Quaternary Cenozoic aged older alluvium (California Geological Survey, 1991).

Three major faults are located in the regional vicinity of the project site, including the Hayward Fault Zone, the San Andreas Fault Zone, and the Calaveras Fault Zone. The San Andreas Fault Zone is located approximately 4.6 miles southwest of the project site. The San Andreas Fault was the source of the 1906 San Francisco Earthquake, which was estimated at a magnitude 8.3 on the Richter Scale (United States Geological Survey, 2016). The Hayward and Calaveras Fault Zones both run along the eastern side of the San Francisco Bay and are considered capable of producing large earthquakes. There are no active fault traces in the project vicinity and the project area is not located within an earthquake fault zone (California Geological Survey, 2022).

DISCUSSION OF IMPACTS

a-i), ii) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Strong seismic ground shaking?

Less than Significant Impact

Because the project site is located in the seismically active San Francisco Bay Region, the occurrence of earthquakes due to rupture of a nearby earthquake fault cannot be precluded. There are no indications of active faulting at the site and no active fault traces in the project vicinity. The closest major faults are the San Andreas, Hayward, and Calaveras faults, which are mapped approximately 4.6 miles southwest, 13 miles northeast, and 18 miles northeast, respectively. These faults are capable of producing minor to major earthquakes; therefore, there is potential for the project site to experience high intensity ground shaking. However, the likelihood of surface rupture occurring from active faulting at the site is small.

The project site does not lie within a State mandated Alquist-Priolo Earthquake Fault Zone, as identified by the most recent Alquist-Priolo Fault Zoning Map issued by the State Geologist (California Geological Survey, 2022). Therefore, potential direct or indirect impacts, including the risk of loss, injury, or death involving rupture of a known earthquake fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, and/or strong seismic ground shaking, would be less than significant.

a-iii) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Seismic-related ground failure, including liquefaction?

Less than Significant Impact

Liquefaction primarily occurs in relatively loose, saturated, cohesionless soils that lose their strength and become incapable of supporting the weight of overlying soils or structures when subject to earthquake stresses. Portions of the project site are located within a liquefaction zone which is mapped along the area surrounding Adobe Creek. During construction, project activities may occur in portions of the mapped liquefaction hazard zone along Adobe Creek; however, these activities would not pose risks of substantial adverse effects because construction staging areas would be located outside of the liquefaction hazard zone. The use of heavy machinery would be limited to areas that are outside of the mapped hazard zone. Project operations would not introduce any new potential substantial adverse effects related to liquefaction because the project would replace an existing sewer main that runs along Adobe Creek. The impact would be less than significant.

a-iv) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Landslides?

No Impact

The project site is not located within a landslide hazard zoned as delineated by the California Geological Survey (California Geological Survey, 2022). Areas surrounding the project site are relatively flat and are not characterized by loose or unstable soils. Project construction or operation would not directly or indirectly cause potential substantial adverse effects related to landslides. No impact would occur.

b) Result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact with Mitigation Incorporated

The project would replace an existing sewer main, which would require ground disturbance to access the existing pipeline and construct the new infrastructure. Sewer pipelines are generally buried at depths between two to six feet below ground surface. During construction, project activities would involve earth excavation and trenching to depths adequate to access the existing infrastructure and construct the new pipelines. However, the excavated earth would be replaced, leveled, and revegetated after the new infrastructure is installed. Some soil erosion and loss of topsoil will be unavoidable, as newly compacted soils may erode due to precipitation during project operation. As described in Section 4.2.10, Hydrology and Water Quality, the City would implement Mitigation Measure HYDRO-1, which requires the preparation and implementation of an Erosion Control Plan. The Erosion Control Plan shall be prepared by a registered professional engineer and include BMPs to minimize siltation, sedimentation, and erosion. Implementation of Mitigation Measure HYDRO-1 would ensure that the project would not cause substantial erosion or loss of topsoil. The impact would be less than significant with mitigation incorporated.

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?

Less than Significant Impact

The project site is located in a relatively flat, highly developed urban area that is not characterized by loose or unstable soils. The project is not located in a landslide hazard zone.

Portions of the project site are within a liquefaction hazard zone that is mapped along the areas that surround Adobe Creek. During construction, some project activities, including excavation and trenching, may occur in the liquefaction hazard zone. Use of heavy machinery would be limited to areas that are not within the liquefaction hazard zone. The project would comply with all federal, state, and local regulations regarding seismic safety and infrastructure would be designed to conform to all building requirements. Project impacts during construction and operation would be less than significant.

d) Be located on expansive soil, as defined in Table 18 1 B of the Uniform Building Code, creating substantial direct or indirect risks to life or property?

No Impact

Expansive soils (clays) are those that contain minerals such as smectite clays that are capable of absorbing water. These soils are prone to expansion and shrinkage due to variation in water volume. Soils at the project site include the Urban land-Flaskan complex, characterized by two to nine percent slopes and comprised of approximately 70 percent urban land, 20 percent Flaskan and similar soils, and 10 minor components (USDA Natural Resources Conservation Service, 2019). The Flaskan series consists of very deep, well drained soils that formed in alluvium from mixed rock sources (USDA, 2009). A typical Flaskan pedon would include sandy loams, sandy clay loams, and gravelly sandy clay loams. Soils of the Flaskan series are not considered expansive clays; therefore, the project would not be located on an expansive soil. No impact would occur.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact

The project would include replacement of the existing sewer main; therefore, the soils on the project site are capable of supporting the replacement infrastructure. No septic tanks or additional alternative wastewater disposal systems are proposed. No impact would occur.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant Impact with Mitigation Incorporated

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. Most of the project site is situated within the City which is mostly located on alluvial fan deposits of Holocene age that have a low potential to contain significant nonrenewable paleontological resources. The project would replace sewer pipes which are previously disturbed during the installation of the old pipes. Although it is unlikely that paleontological resources would be discovered on-site given its prior disturbance and low potential for such resources, construction activities could result in the disturbance and/or accidental destruction of unknown paleontological resource. Mitigation Measure GEO-1 requires

all construction personnel to receive paleontological resources training and requires stop work and appropriate treatments if vertebrate fossils are discovered. With implementation of Mitigation Measure GEO-1, impacts to paleontological resources would be less than significant.

MITIGATION MEASURES

Mitigation Measure GEO-1: Accidental Discovery of Paleontological Resources

All construction personnel shall receive paleontological resources awareness training that includes information on the possibility of encountering fossils during construction; the types of fossils likely to be discovered; and proper procedures to follow in the event that fossils are encountered. Worker training shall be prepared and presented by a qualified paleontologist.
If vertebrate fossils are discovered during construction, all work within 50 feet of the discovery shall stop immediately until a qualified professional paleontologist can assess the nature and importance of the find and recommend appropriate treatment. Treatment may include avoidance, if feasible, preservation in place, or preparation and recovery of fossil materials so that they can be housed in an appropriate museum or university collection and may also include preparation of a report for publication describing the finds.

4.2.8 Greenhouse Gas Emissions

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

ENVIRONMENTAL SETTING

Greenhouse gases (GHGs) are recognized by wide consensus among the scientific community to contribute to global warming/climate change and associated environmental impacts. The most common GHGs released from human activity are carbon dioxide, methane, and nitrous oxide. (Governor's Office of Planning and Research, 2008). The primary sources of GHGs are vehicles (including planes and trains), energy plants, and industrial and agricultural activities (e.g., dairies and hog farms).

In the United States, the major sources of GHG emissions are transportation, electricity generation, and industrial activities (USEPA, 2022). These three sources are also the top contributors of GHG emissions in California (CARB, 2022).

Global Warming Solutions Act

Assembly Bill (AB) 32, adopted in 2006, established the Global Warming Solutions Act of 2006 which requires the State to reduce GHG emissions to 1990 level by 2020. In 2016, Senate Bill (SB) 32 was signed into law, amending the California Global Warming Solution Action. SB 32 and Executive Order B-30-15 require California Air Resources Board (CARB) to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. CARB updated its Climate Change Scoping Plan in December of 2017 to express the 2030 statewide target in terms of million metric tons of carbon dioxide equivalent ($MMTCO_2e$). Based on the emissions reductions directed by Senate Bill (SB 32), the annual 2030 statewide target emissions level for California is 260 $MMTCO_2e$.

Bay Area 2017 Clean Air Plan

The 2017 CAP is the most recently adopted air quality plan in the Bay Area. The CAP focuses on two related BAAQMD goals: protecting public health and protecting the climate. To protect the climate, the CAP includes control measures designed to reduce emissions of methane and other

supper-GHGs that are potent climate pollutants in the near-term, and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

CEQA Air Quality Guidelines

The BAAQMD CEQA Air Quality Guidelines are intended to serve as a guide for those who prepare or evaluate air quality impact analyses for projects and plans in the San Francisco Bay Area. The City of Los Altos and other jurisdictions in the San Francisco Bay Area Air Basin utilize the thresholds and methodology for assessing GHG impacts developed by BAAQMD within the CEQA Air Quality Guidelines. The guidelines include information on legal requirements, BAAQMD rules, methods of analyzing impacts, and recommended mitigation measures.

City of Los Altos Climate Action and Adaptation Plan

The City of Los Altos CAAP was adopted by the City Council in March 2022. The 2022 CAAP is the successor to the 2013 Climate Action Plan which targeted a 15 percent reduction in carbon emission by the year 2020 using 2005 as baseline. The City exceeded this target and achieved a 40 percent reduction in carbon emissions by 2018 compared to 2005. The 2022 CAAP aims to build upon this success and set the City on a path to carbon neutrality by 2035.

Town of Los Altos Hills General Plan

The Los Altos Hills General Plan includes various polices to avoid or mitigate impacts resulting from GHG emissions of planned development within the Town, including CON Policy 4.1 to support regional, state, and federal programs that improve air quality in the Bay Area.

DISCUSSION OF IMPACTS

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant Impact

GHG emissions associated with development of the project would occur over the short-term from construction activities, consisting primarily of emissions from equipment exhaust and worker and vendor trips. Long-term operational emissions would be limited to vehicular traffic during occasional maintenance activities.

BAAQMD has adopted thresholds of significance that were designed to establish the level at which GHG emissions would cause significant environmental impacts under CEQA. The thresholds are included in the 2022 CEQA Air Quality Guidelines (BAAQMD, 2022).

The project would result in GHG emissions from temporary construction-related activities, including operation of heavy equipment, use of trucks, workers trips, site preparation, and trenching. Construction would occur for approximately 262 workdays spanning four years. GHG emissions generated by project construction activities were calculated using CalEEMod version 2022.1 and were based on the project's estimated construction schedule and anticipated equipment use. Construction activities would generate a maximum of 176.4 metric tons (MT) of CO_2e during the four-year construction. BAAQMD does not have an adopted thresholds of

significance for GHG emissions. BAAQMD's approach to developing thresholds of significance for GHG impacts is to use a "fair share" approach to determine whether an individual project's GHG emissions would be cumulatively considerable. If a project would contribute its "fair share" of what is needed to achieve Statewide long-term GHG reduction goals, the impact of the project's GHG emission would be less than significant. BAAQMD has identified required design elements that development and transportation projects must incorporate into project plans in order for their impact to be considered less than significant. There are no design elements required for infrastructure projects, and therefore the project must only be consistent with the local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b) (BAAQMD, 2022). Local GHG reduction plans include the 2017 CAP, the City of Los Altos CAAP, and the Town of Los Altos Hills General Plan. As described below in Impact b), the project would be consistent with GHG reduction strategies identified in these local plans, and therefore would not constitute a significant impact regarding GHG emissions. The impact from construction GHG emissions would be less than significant.

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

No Impact

The project site falls within the planning jurisdiction of the BAAQMD CAP and the City of Los Altos CAAP. As discussed in Section 4.2.3 Air Quality, project construction and operation would not conflict with the CAP. The CAAP outlines goals, strategies, and actions for the City to achieve carbon neutrality by 2035. The CAAP does not specifically address plumbing or sewer infrastructure, but contains general goals of maintaining infrastructure to increase efficiency and reduce waste. The project would align with goals identified in the CAAP because it would replace a leaking sewer line and therefore increase the efficiency of the sewer infrastructure. The new sewer main would require less maintenance than the existing infrastructure, and would therefore reduce vehicle trips and GHG emissions associated with maintenance of the sewer lines. The project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. No impact would occur.

4.2.9 Hazards and Hazardous Materials

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

ENVIRONMENTAL SETTING

A search of the SWRCB's GeoTracker and the Department of Toxic Substances Control's (DTSC's) EnviroStor databases indicated two closed Leaking Underground Storage Tank (LUST) cleanup sites and one active cleanup site within 0.25 mile of the project site (State Water Resources Control Board, 2022; Department of Toxic Substances Control, 2022). The two leaking underground storage tank (LUST) sites are located at a private residence on Orange Avenue, approximately 600 feet east of the project site, and at Chevron #9-1975, located at 401 Main Street, approximately 450 feet east of the project site. The LUST cleanup case at the Orange Avenue site was opened in January 1993. The contaminant released was heating/fuel oil and the potential media of concern was soil. The LUST and additional piping were removed and the case was closed in October 1995. The LUST cleanup case at 401 Main Street was opened in September 1995. The contaminant released was gasoline and the potential medium of concern was soil. Four tanks and additional piping were removed and the case was closed in October 1996. One active cleanup case at Los Altos Cleaners located at 392 1st street, approximately 900 feet east of the project site, was opened in March 2021. The contaminants of concern are tetrachloroethylene (PCE), trichloroethylene (TCE), and other volatile organic compounds (VOCs) potentially impacting soil vapor. Cleanup activities, including soil vapor monitoring and vapor intrusion assessments are currently underway. The most recent documentation available is the approval by the County of Santa Clara Department of Health of a request by the property owner to extend the submission of an *Additional Investigation Report* to January 17, 2023.
No schools are located within 0.25 mile of the project site. The closest school is Gardner Bullis Elementary School, located approximately 0.35 miles northwest of the project site.
No airports are located within two miles of the project site. The nearest airport to the project site is the Moffett Federal Airfield located approximately 4.5 miles northeast of the project site.

The project site is located within a Local Responsibility Area (LRA) not a State Responsibility Area (SRA) as mapped by California Department of Forestry and Fire Protection (CalFire). The project site is not located within or near an area that is designated as Moderate, High, or Very High Fire Hazard Severity Zone (FHSZ) by CalFire (CalFire, 2022).

a), b) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than Significant Impact

Project construction would involve the use and transport of typical construction-related hazardous materials such as fuels, lubricants, adhesives, and solvents. Heavy equipment would be staged and refueled within the project staging areas. Construction activities would be required to comply with numerous hazardous materials regulations and implement BMPs to ensure that hazardous materials are handled properly and do not pose a threat to worker safety or the environment. Workers handling hazardous materials are required to adhere to federal and California Occupational Safety and Health Administration (OSHA) health and safety requirements. Hazardous materials must be transported to and from the project area in accordance with the Resource Conservation and Recovery Act (RCRA) and U.S. Department of Transportation

regulations and disposed of in accordance with RCRA at a facility that is permitted to accept the waste.

Although a spill or leak of hazardous materials is unlikely, a spill or leak that is not handled properly would have the potential to contaminate the environment. However, with compliance with existing regulations related to the routine transport and accidental releases of hazardous materials, impacts would be less than significant.

c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

No Impact

The project is not located within one-quarter mile of an existing or proposed school. The closest school is Gardner Bullis Elementary School, located approximately 0.35 mile northwest of the project site. No impact would occur.

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?*

Less than Significant Impact

The project site is not located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, although there are three sites that are listed within 0.25 mile of the project site. Two separate LUST cleanup sites are located 450 feet and 600 feet east of the project site, but do not pose an environmental risk to the site because cleanup actions were administered and the cases were closed in October 1996 and October 1995, respectively. There is one active cleanup site located at 392 1st street, approximately 900 feet east of the project site. The case was opened in March 2021 and cleanup activities are currently underway. The potential media of concern is soil vapor, which is currently being monitored by numerous nested soil vapor probes. Due to the nature of the potential media of concern and the distance of this cleanup site from the project site, this site does not pose an environmental risk to the project site. The impact would be less than significant.

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

No Impact

The project site is not located within two miles of an airport. The nearest airport to the project site is the Moffett Federal Airfield located approximately 4.5 miles northeast of the project site. No impact would occur.

f) *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

Less than Significant Impact

The project would not impair implementation of or physically interfere with an adopted emergency response plan or evacuation plan. The project would not obstruct any designated evacuation routes by the City. The nearest designated evacuation route is Foothill Expressway, which runs parallel to the project site approximately 250-500 feet east. The project site would not include any portion of Foothill Expressway, nor would project activities or staging areas obstruct the route or prevent residents from accessing the route. Project activities would mainly occur in residential and recreational areas. The impact would be less than significant.

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

No Impact

The project site is located within an LRA, but not within or near an area that is designated as Moderate, High, or Very High FHSZ by CalFire. As such, the project would not directly expose people or structures to a significant risk of loss, injury or death involving wildland fires. The project is located in a highly developed area along Adobe Creek; thus, the risk of wildfire spread is low. No impact would occur.

4.2.10 Hydrology and Water Quality

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

ENVIRONMENTAL SETTING

The project area is located within the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (Region 2). The *San Francisco Bay Region (Region 2) Water Quality Control Plan* (Basin Plan) indicates that the project site is within the Santa Clara hydrologic planning area (San Francisco Bay RWQCB, 2017). The project site is located within the Adobe Creek watershed within the Santa Clara Valley Groundwater Basin – Santa Clara Subbasin. Runoff at the project site drains to Adobe Creek, which runs alongside the project site and drains in the southwestern portion of the San Francisco Bay. Beneficial uses of Adobe Creek are cold and warm water habitat, wildlife habitat, and water contact and noncontact water recreation. Portions of the project site are within the one percent (1%) Annual Chance Flood Hazard and Regulatory Floodway areas, as mapped by the Federal Emergency Management Agency's (FEMA) National Flood Hazard Layer (NFHL) Viewer (Federal Emergency Management Agency, 2022).

DISCUSSION OF IMPACTS

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less than Significant Impact with Mitigation Incorporated

The Basin Plan sets narrative and numerical water quality objectives for the San Francisco Bay Region. Numerical objectives typically describe pollutant concentration, physical and chemical conditions of water, and the toxicity of water to aquatic organisms. The project would be required to obtain permit from the San Francisco Bay RWQCB to ensure that project activities would not violate any water quality standards or waste discharge requirements or result in substantial off-site erosion. In addition, Mitigation Measure HYDRO-1 would be implemented, which requires the preparation and implementation of an Erosion Control Plan. Mitigation Measure HYDRO-1 would include BMPs to reduce substantial erosion which could lead to off-site pollution and/or sedimentation of waterways. With the implementation of Mitigation Measure HYDRO-1, the project would not violate any water quality standards or waste discharge requirements. Project operations would not include any activities that would violate water quality standards or waste discharge requirements or degrade surface or groundwater quality. The impact would be less than significant.

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

Less than Significant Impact

The project site is located within the Santa Clara Valley Groundwater Basin – Santa Clara Subbasin, which has been designated as a high-priority basin by the Sustainable Groundwater Management Act. The project site is located within the Los Altos Suburban District (District) as designated by the California Water Service Company, which provides water to the project area. The District's water supply relies partially on groundwater from the Santa Clara Subbasin. This basin falls within the jurisdiction of the Santa Clara Valley Water District, which has published the 2021 Groundwater Management Plan for the Santa Clara and Llagas Subbasins to plan for

demand for groundwater resources (Santa Clara Valley Water District, 2021). Water needed for dust suppression during construction would be obtained from existing water sources. Groundwater may comprise a portion of the water used for dust suppression; however, the quantity of water required would be limited to only what is needed to suppress fugitive dust during construction. Groundwater would not be drawn for dust suppression. Implementation of the project would adhere to the of the goals, programs, or policies outlined in the 2021 Groundwater Management Plan for the Santa Clara and Llagas Subbasins. Therefore, impacts related to groundwater supplies and groundwater recharge would be less than significant.

c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; (iii) create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows?*

Less than Significant Impact with Mitigation Incorporated

The project site runs along Adobe Creek, which is a 14.2-mile long northward-flowing creek that originates in the Santa Cruz Mountains. Adobe Creek runs through the communities of the Town of Los Altos Hills, the City of Los Altos, and Palo Alto before it drains in the southwestern portion of the San Francisco Bay (United States Geological Survey, 2022). The project would not alter the course of Adobe Creek, nor would it add substantial impervious surface to the area.

The project would replace the existing Adobe Sewer Main system in place. The new sewer system would be entirely below ground. Therefore, the project would not result in an increase in impervious surfaces or an increase in runoff compared to existing conditions. The project would not cause a substantial change to the erosion and accretion patterns in the long-term because the project would not alter the existing drainage pattern of the area. Temporary construction impacts related to runoff from the cut soil stored on-site could occur, but the project would be required to implement Mitigation Measure HYDRO-1 which requires the preparation and implementation of an Erosion Control Plan to ensure potentially significant erosion and siltation impacts would be reduced to less than significant. Portions of the project site would be located within the one percent (1%) Annual Chance Flood Hazard Zone (100-year floodplain) and Regulatory Floodway, as designated by the FEMA's NFHL Viewer (Federal Emergency Management Agency, 2022). However, the project would involve replacing an underground sewer main, it would not significantly change the existing site conditions and would not alter drainage patterns. Therefore, the project would not result in flooding on- or off-site, create or contribute to new runoff, or significantly impede or redirect flood flows. The impact would be less than significant.

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

Less than Significant Impact

The project is not located in a coastal area or in an area subject to seiches or tsunamis; therefore, these phenomena are not applicable to the project. As discussed above in Impact c), portion of

the project site are located within 100-year floodplain and Regulated Floodway (Federal Emergency Management Agency, 2022). The Los Altos Municipal Code Chapter 12.60 Floodplain Management lists specific regulations that apply to flood hazard area, including permits required for development in floodplain. Complying with the Los Altos Municipal Code for floodplain management would reduce impacts related to flood hazard to a less-than-significant level.

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

No Impact

The project falls within the Santa Clara Valley Groundwater Basin – Santa Clara Subbasin, which is managed in accordance with the 2021 Groundwater Management Plan for the Santa Clara and Llagas Subbasins (Santa Clara Valley Water District, 2021). The project would not conflict with any goals, programs, or policies outlined in this groundwater management plan. No impact would occur.

MITIGATION MEASURES

Mitigation Measure HYDRO-1: Erosion Control Plan

Prior to beginning any ground-disturbing work on the project site, the City shall prepare an Erosion Control Plan to be implemented throughout construction. The Erosion Control Plan shall be prepared by a registered professional engineer and include BMPs to minimize siltation, sedimentation, and erosion. The Plan may include measures such as erosion control fencing and covering any loose soil on-site. The City shall be responsible for ensuring that the Erosion Control Plan is implemented throughout construction activities.

4.2.11 Land Use and Planning

Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a) Physically divide an established community?	☐	☐	☒	☐
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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project site is located within the City of Los Altos along the western City boundary adjacent to the Town of Los Altos Hills. The project site falls within the planning jurisdiction of the City of Los Altos General Plan.

DISCUSSION OF IMPACTS

a) Physically divide an established community?

Less than Significant Impact

The project site is located in a suburban area in the City and is surrounded by residential development and recreational areas. Project construction activities would require space for staging areas in various locations throughout residential neighborhoods surrounding the project site which may limit access to certain portions of Adobe Creek or local parks. As the project would replace an existing sewer main, project operational conditions would be similar to existing conditions at the project site. Thus, project impacts related to physically dividing an established community would be less than significant.

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

No Impact

The project site spans across multiple land use designations as specified by the City of Los Altos General Plan Land Use Element. Adobe Creek and adjacent riparian areas are designated as Open Space. As the sewer main to be replaced runs along Adobe Creek, most areas of the project site are designated as Open Space. The remaining areas are designated as Single Family, Small Lot, or Park. The project would not conflict with any land use designation, plan, policy, or regulation in the General Plan because the conditions after project construction would be similar to existing conditions at the project site. No impact would occur.

4.2.12 Mineral Resources

Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project is not located within or near a mineral resource site. The City of Los Altos does not discuss mineral resources in their General Plan or other planning documents.

DISCUSSION OF IMPACTS

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

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

No Impact

The project site is not located within or near a mineral resource site. The City of Los Altos General Plan was adopted in November 2002 and does not identify the project area as a locally important mineral resource site. No impact would occur.

4.2.13 Noise

Would the project result in:		*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a)	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b)	Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c)	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

BACKGROUND INFORMATION

Noise

Noise is generally defined as sound that is loud, disagreeable, or unexpected. Sound, as described in more detail below, is mechanical energy transmitted in the form of a wave because of a disturbance or vibration.

There are several methods to characterize sound. The most common in California is the A-weighted decibel scale or dBA. This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Because sound levels can vary markedly over a short period of time, different types of noise descriptors are used to account for this variability. Typical noise descriptors include Maximum Noise Level (L_{max}), the energy-Equivalent Noise Level (L_{eq}), and the Day-Night Average Noise Level (L_{dn}). The L_{dn} noise descriptor is commonly used in establishing noise exposure guidelines for specific land uses. For L_{eq}, the most common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration.

Since excessive noise levels can adversely affect human activities and human health, federal, state, and local government agencies have set forth criteria or planning goals to minimize or avoid these effects. Noise guidelines are almost always expressed using one of the several noise averaging methods, such as L_{eq}, L_{dn}, or Community Noise Equivalent Level (CNEL).

Vibration

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One method is Peak Particle Velocity (PPV). The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. A PPV descriptor with unit of inch/second (in/sec) is used to evaluate construction-generated vibration for building damage and human complaints.

The two primary concerns with construction-induced vibration, the potential to damage a structure and the potential to interfere with the enjoyment of life, are evaluated against different vibration limits. Human perception to vibration varies with individual and is a function of physical setting and the type of vibration. Persons exposed to elevated ambient vibration levels, such as people in an urban environment, may tolerate a higher vibration level.

Structural damage can be classified as the following:

- Cosmetic only, such as paint flaking or minimal extension of cracks in building surfaces;
- Minor, including limited surface cracking; or,
- Major, that may threaten the structural integrity of the building.

Construction-induced vibration that can be detrimental to the building is very rare and has only been observed in instances where the structure is at a high state of disrepair and the construction activity occurs immediately adjacent to the structure.

REGULATORY SETTING

Los Altos General Plan

The Natural Environment & Hazards Element of the City of Los Altos' General Plan requires that all construction activity to comply with the limits established in the City Noise Ordinance (City of Los Altos, 2002b).

City of Los Altos Municipal Code

The City's Noise Control Ordinance was adopted to control unnecessary, excessive, and annoying noise and vibration within the City. Section 6.16.050 of the Los Altos Municipal Code identifies exterior noise limits for various zoning districts, as shown on Table 4 (City of Los Altos, 2022b).

Table 4. Exterior Noise Limits

RECEIVING LAND USE CATEGORY	TIME PERIOD	NOISE LEVEL (DBA)[A]
All R1 Zoning Districts	10:00 p.m. – 7:00 a.m. 7:00 a.m. – 10:00 p.m.	45 55
All R3 Zoning Districts	10:00 p.m. – 7:00 a.m. 7:00 a.m. – 10:00 p.m.	50 55
All OA Zoning Districts	10:00 p.m. – 7:00 a.m. 7:00 a.m. – 10:00 p.m.	55 60
All C Zoning Districts	10:00 p.m. – 7:00 a.m. 7:00 a.m. – 10:00 p.m.	60 65

a. Levels not to be exceeded more than 30 minutes in any hour

Section 6.16.070 sets allowable hours of construction within residentially zoned properties. In these areas, construction is permitted between 7:00 a.m. and 5:30 p.m. Monday through Friday and between 9:00 a.m. and 6:00 p.m. on Saturdays. Construction activities are not permitted on Sundays or the City observed holidays of New Year's Day, Martin Luther King Day, President's Day, Cesar Chavez Day, Memorial Day, Juneteenth, Independence Day, Labor Day, Indigenous Peoples' Day, Veteran's Day, Thanksgiving Day, the day after Thanksgiving, Christmas Eve, Christmas Day and the whole week of Christmas. In addition, where technically and economically feasible, maximum noise levels from construction activities should not exceed those listed in Tables 3 and 4 in Chapter 6.16.070 of the City's Municipal Code.

Town of Los Altos Hills Municipal Code

Regulations pertaining to permitted noise levels and operational hours associated with construction as well as acceptable noise levels from stationary sources are provided in the Town of Los Altos Hills Municipal Code. Specifically, Section 5-2.02 regulates noise sources in accordance with the following standards shown in Table 5.

Table 5. Exterior Noise Level Standards[1]

NOISE SOURCES	EXTERIOR NOISE LEVEL STANDARDS (DBA)	
	DAYTIME[A]	NIGHTTIME[B]
Animals	50	40
Farm Tractor	82	40
Farm Equipment	65	40
Fixed Noise Source	50	40
Machines, Tools, or Appliance	50	40
Motor Vehicle Repairing, Rebuilding, Modernizing and Testing	82	40
Persons	50	40
Powered Model Vehicle	60	40
Sound-Producing or Amplifying Device	50	40

a. Daytime shall be the period from 8:00 a.m. on weekdays, and 9:00 a.m. on weekends and Town holidays, to 7:00 p.m.

b. Nighttime shall be the period from 7:00 p.m. to the beginning of daytime. Nighttime shall begin at 10:00 p.m. for persons and sound-producing or amplifying devices.

Outside construction and repair work is prohibited between the hours of 5:30 p.m. of one day and 8:00 a.m. of the next succeeding day on any Monday through Saturday, or at any time on any Sunday, or at any time on any public holiday by Municipal Code Section 5-6.02.

In accordance with Municipal Code Section 10-2.403, all grading operations shall be carried on between the hours of 8:00 a.m. and 5:30 p.m., Monday through Friday, unless the Town Engineer finds evidence that an emergency exists that imperils the public safety, in which event they may

[1] When the source is on public property, measurements shall be made 50 feet from the source or at the private property line, whichever is closer.

direct the work to proceed during such other hours as may be necessary for the duration of the emergency. No grading operations shall be carried on any day designated by resolution of the City Council to be recognized and celebrated as a public holiday by the employees of the Town of Los Altos Hills.

ENVIRONMENTAL SETTING

The project site is surrounded by residential development on all sides and runs parallel to University Avenue between W. Edith Avenue and Manresa Way. According to the Noise Contours maps included in the Los Altos General Plan (Figures NEH-2 and NEH-3), this section of the University Avenue has a noise level of approximately 60 dB CNEL (City of Los Altos, 2002b).

DISCUSSION OF IMPACTS

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than Significant with Mitigation Incorporated

Construction activities associated with the project have the potential to generate considerable amounts of short-term noise from heavy equipment operation at adjacent residential and open space uses. Project construction would occur during the allowable hours established in Chapter 6.16.070 of the City of Los Altos' Municipal Code and Section 5-2.02 of the Town of Los Altos Hills' Municipal Code.

Section 6.16.070 of the City of Los Altos' Municipal Code also provides recommended maximum noise level limits, where economically and technically feasible, for mobile construction equipment used on an intermittent basis for less than 10 days, and for stationary sources associated with construction when there are long-term, scheduled construction activities. The project construction would occur more than 10 days. The applicable noise limits to project construction are 75 dBA in the R1 zoning districts, 80 dBA in the Public & Community Facilities (PCF) and R3 zoning districts, and 85 dBA in all Office Administrative (OA) and Commercial (C) zoning districts during allowable daytime hours. The project site is mostly located within and surrounded by Single Family (R1-H) district. Therefore, project construction noise that exceeds 75 dBA would result in a significant impact.

Noise impacts resulting from construction depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive areas. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day, if the construction occurs in areas immediately adjacent to noise-sensitive land uses, or when construction lasts over extended periods of time. Table 6 shows typical ranges of construction noise levels at 50 feet.

Table 6. Typical Ranges of Construction Noise Levels at 50 Feet, Leq (dBA)

	DOMESTIC HOUSING		OFFICE BUILDING, HOTEL, HOSPITAL, SCHOOL, PUBLIC WORKS		INDUSTRIAL PARKING GARAGE, RECREATIONS, STORE, SERVICE STATION		PUBLIC WORKS ROADS & HIGHWAYS, SEWER, AND TRENCHES	
	I	II	I	II	I	II	I	II
Ground Clearing	83	83	84	84	84	83	84	84
Excavation	88	75	89	79	89	71	88	78
Foundations	81	81	78	78	77	77	88	88
Erection	81	65	87	75	84	72	79	78
Finishing	88	72	89	75	89	74	84	84
I – All pertinent equipment presents at site. II – Minimum required equipment presents at site								

Source: (USEPA, 1973)

Construction activities would include excavation, site preparation, trenching, and paving. During each stage of construction, there would be a different mix of equipment operating, and noise levels would vary by activity and vary within activities, based on the amount of equipment in operation and the location at which the equipment is operating. As shown in Table 6, construction activities generate considerable amounts of noise. Project construction would occur immediately adjacent to single-family residential properties throughout the entire alignment. Construction noise levels would be anticipated to exceed the single-family residential limit of 75 dBA Leq; therefore, impacts would be significant. Mitigation Measure NOI-1 requires the implementation of construction noise reduction measures (e.g., noticing, use of noise barriers, and designating disturbance coordinator) to minimize disruption and annoyance caused by project construction activities. With implementation of Mitigation Measure NOI-1, the project would result in less than significant construction noise impact.

Once constructed, project operation and maintenance would be similar to existing conditions. No new noise would be generated from project operation. No operational noise impact would occur.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact

Vibration levels would vary depending on soil conditions, construction methods, and equipment used. Project construction would generate negligible ground vibrations during construction based on the type of equipment being used (e.g., cement and mortar mixer, forklift, paver) and the construction method being employed. The impact 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?

No Impact.

The project site is not located within an airport land use plan or within two miles of a public airport or public use airport and would not result in a safety hazard for people working in the project area. No impact would occur.

MITIGATION MEASURES

Mitigation Measure NOI-1: Construction Noise Reduction Measures

- The contractor shall prepare a detailed construction schedule for major noise-generating construction activities and shall send a notice to neighbors with construction schedule.
- Maintain maximum physical separation between noise sources (construction equipment) and sensitive noise receptors. Separation may be achieved by locating stationary equipment to minimize noise impacts on the community.
- Use construction noise barriers such as paneled noise shields, barriers, or enclosures adjacent to noisy stationary equipment (e.g., generators). Noise control shields shall be made featuring a solid panel and a weather-protected, sound-absorptive material on the construction-activity side of the noise shield.
- Unnecessary idling of internal combustion engines in construction equipment with a horsepower rating of 50 or more shall be strictly prohibited, and limited to five minutes or less, consistent with BAAQMD best management practices.
- Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the project site.
- A disturbance coordinator shall be identified and responsible for responding to any complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint and implement measures to correct the problem. The disturbance coordinator's contact information shall be posted at the construction site and shall be included in the notice sent to neighbors regarding the construction schedule.

4.2.14 Population and Housing

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

ENVIRONMENTAL SETTING

The project would replace the existing Adobe Creek Sewer Main, which extends through 24 private parcels that are in residential use. The project would not alter the number or type of residential units that are present in the project area, nor would it introduce changes in land use or infrastructure that would induce substantial residential development.

DISCUSSION OF IMPACTS

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)?

No Impact

The project would replace the existing sewer main that is currently in a state of disrepair. The project does not propose new homes or businesses and would not alter the number or type of residential units present in the project area. The project would not introduce changes in infrastructure that would encourage substantial unplanned population growth in the project area. No direct or indirect impacts regarding substantial unplanned population growth would occur.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact

The project site is located in a residential neighborhood; however, the sewer main replacement project would not displace people or housing or require the construction of replacement housing elsewhere. No impact would occur.

4.2.15 Public Services

Would the project:	*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The Los Altos Fire Station and Los Altos Police Department are located approximately 0.56 miles and 0.52 miles northeast of the project site, respectively. The closest school is Gardner Bullis Elementary School, which is located approximately 0.35 miles northwest of the project site. There are multiple parks within the project area, including Bicentennial Park, Shoup Park, Lincoln Park, and Redwood Grove Nature Preserve. Portions of Shoup Park and Redwood Grove Nature Preserve are located within the project site.

DISCUSSION OF IMPACTS

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

- Fire Protection?
- Police Protection?
- Schools?
- Parks?
- Other Public Facilities?

Less than Significant Impact

The project would not contribute any change in infrastructure that would require the provision of or need for new or physically altered governmental facilities. The purpose of the project is to replace the existing 6- and 8-inch sewer pipes with new 8-inch HDPE pipe to eliminate infiltration and minimize the potential for blockage. The project would not include development of structures or infrastructure that would directly or indirectly increase the population in the City. The project site would be adequately serviced by the Los Altos Fire Station and Los Altos Police Department, which are located approximately 0.5 mile from the project site. There are various schools and parks within one mile of the project site, including Gardner Bullis Elementary School, Pinewood School, Almond Elementary School, Los Altos High School, Heritage Academy, St. Nicholas Elementary School, Redwood Grove Nature Preserve, Shoup Park, and Bicentennial Park. Temporary closures of portions of Shoup Park and Redwood Grove Nature Preserve may be necessary during project construction, but these closures would not necessitate the need for new recreational facilities. No impact would occur from the construction of new or altered governmental facilities that would result in a significant environmental impact. Impacts related to the service ratios, response times, or other performance objectives for the public services would be less than significant.

4.2.16 Recreation

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

ENVIRONMENTAL SETTING

There are four public recreational facilities within the project area: Bicentennial Park, Shoup Park, Lincoln Park, and Redwood Grove Nature Preserve. Bicentennial Park is a small park located at the intersection of West Edith Avenue and Fremont Road which includes benches and a meandering path through a wooded setting. Shoup Park is a medium-sized park adjacent to Adobe Creek which features playgrounds, BBQs, picnic tables, restrooms, a large grass field, and a trailhead to Redwood Grove. Shoup Park also includes The Garden House, an event center that is available for weddings, receptions, parties, and meetings. Lincoln Park is a 4.44 acre park strip situated east of the project site and bounded by Edith Avenue to the north, Foothill Expressway to the east, and University Avenue to the west. The park features a gazebo, a large grass field, and three sculptures. Redwood Grove Nature Preserve is a 6.12-acre open space preserve featuring picnic tables, a boardwalk along Adobe Creek, and a Hillside Trail. It also hosts the Los Altos Parks & Recreation Department's Redwood Grove Summer Camp. Portions of Shoup Park and Redwood Grove Nature Preserve would be located within the project site.

DISCUSSION OF IMPACTS

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?

Less than Significant Impact

During project construction, portions of Shoup Park and Redwood Grove Nature Preserve would be closed to accommodate construction equipment. These closures may increase the use of other local parks and recreational facilities, however, due to the temporary nature of these closures, no substantial deterioration of park facilities would occur. The project does not include the addition of recreational facilities and would not increase the use of existing neighborhood and regional parks or other recreational facilities or require the construction or expansion of facilities. The impact would be less than significant.

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

Less than Significant Impact

Temporary impacts to existing neighborhood parks and open spaces may occur due to construction activities. Portions of Shoup Park and Redwood Grove Nature Preserve may need to be blocked off to allow for construction equipment access. No permanent impact is associated with the operational phase of the project, and thus no recreational facilities would need to be created or expanded. Due to the temporary nature of construction activities that may inhibit the use of portions of existing recreational facilities, the impact would be less than significant.

4.2.17 Transportation

Would the project:		*Potentially Significant Impact*	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a)	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☒	☐	☐
b)	Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c)	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d)	Result in inadequate emergency access?	☐	☒	☐	☐

ENVIRONMENTAL SETTING

Regional and Local Access

Regional access to the project site is provided via Interstate 280 (I-280). Local access to the project site is provided by Foothill Expressway and El Monte Avenue.

I-280 is the only freeway with an access point in the City. I-280 is a major north-south auxiliary Interstate Highway in the San Francisco Bay Area in California. Regional access to the project site would be through I-280 provided via interchanges at Foothill Expressway and El Monte Avenue.

Foothill Expressway is a high-speed, limited-access streets designed to facilitate the movement of high traffic volumes. It also serves regional traffic and links Los Altos to nearby cities to the north and south.

El Monte Avenue is a collector street functioned as minor arterial and carry a substantial amount of regional or non-local traffic. El Monte Avenue is a four-lane street with two lanes for each direction.

Pedestrian/Bicycle Routes

Bicycle routes near the project site include Class II Bicycle Lanes and Class III Bicycle Routes. Fremont Street, which is located approximately 130-650 feet west of the project site, is classified as a Class II Bicycle Lane. Class II Lanes are stiped lanes on roadways for one-way bicycle travel. Lanes are at least four feet wide and include bike lane signage. W. Edith Avenue, located along the northern project site border, and University Avenue, located approximately 100-1000 feet east

of the project site, are designated as Class III Bicycles Routes. Class III Routes are designated by signs where bicyclists share a travel lane with motorists (City of Los Altos, 2012).

Pedestrian routes near the project site include sidewalks/walkways along University Avenue, W. Edith Avenue, Orange Avenue, and Palm Avenue. A bike/pedestrian connector runs approximately 275 feet from the northern portion of Shoup Park east until it connects to University Avenue (City of Los Altos, 2015).

Transportation Planning

The Metropolitan Transportation Commission (MTC) is the transportation planning, coordinating, and financing agency for the nine-county San Francisco Bay Area, including Santa Clara County. MTC is charged with regularly updating the Regional Transportation Plan, a comprehensive blueprint for the development of mass transit, highway, airport, seaport, railroad, bicycle, and pedestrian facilities in the region. MTC and Association of Bay Area Governments (ABAG) adopted Plan Bay Area 2040 in July 2017, which includes the region's Sustainable Communities Strategy and Regional Transportation Plan.

The Santa Clara Valley Transportation Authority (VTA) oversees the Congestion Management Program, which is aimed at reducing regional traffic congestion. VTA is responsible for countywide transportation planning, including congestion management, design and construction of specific highway, pedestrian, and bicycle improvement projects, as well as promotion of transit-oriented development.

The City has established transportation polices in its General Plan that guide continued development of the circulation system and support planned growth.

DISCUSSION OF IMPACTS

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

Less than Significant with Mitigation Incorporated

Construction of the project would generate off-site traffic including the delivery of construction equipment and materials to the project site and the daily arrival and departure of construction workers. During each construction year, approximately 600 one-way trips for worker commute, 3 one-way trips for vendors, and 36 one-way trips for hauling would be generated during the approximately 65-workday period, which equates to, on average, 10 one-way trips per day.

Construction-related traffic would be temporary, and therefore, would not result in any long-term degradation in operating conditions on any locally used roadways. The impact of construction-related traffic would temporarily decrease capacities of streets in the project area because of the slower movements and larger turning radii of construction vehicles compared to passenger vehicles. The public could experience delays if traveling behind a large or heavy truck. The addition of construction-related truck traffic would not be substantial in relation to traffic flow condition on I-280 and El Monte Avenue. An average of 10 one-way trips per day resulting from the project would fall within the normal daily fluctuations of traffic volumes on area roadways, and while the traffic generated by construction activities would be noticeable and may increase

traffic volumes on the local roadways serving the construction site, the impact would be less than significant after implementation of Mitigation Measure TRAN-1 described below. Numerous bicycle paths are located in the vicinity of the project site on Fremont Street, W. Edith Avenue, and University Avenue. During construction, bicyclists would expect delays when traveling through the vicinity of the project site. Mitigation Measure TRAN-1 requires preparation of a Traffic Control Plan, which would include specific measures to alter pedestrians, bicyclists, and motorists of construction activities. Advance warning signs, such as signage and cones. Impacts to existing circulation systems would be less than significant with implementation of Mitigation Measure TRAN-1.

Once constructed, the project would only require occasional maintenance inspection, which would be similar to existing conditions. No new traffic would be generated during operation. No operation impact would occur.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less than Significant Impact

In accordance with the *Technical Advisory on Evaluating Transportation Impacts in CEQA*, Section 21099 of the Public Resources Code states that the criteria for determining the significance of transportation impacts must promote: (1) reduction of GHG emissions; (2) development of multimodal transportation networks; and (3) a diversity of land uses. Section 21099 subd. (b)(1) further directed the Office of Planning and Research (OPR) to prepare and develop criteria for determining significance. The OPR identifies a screening threshold for small, land use projects as a project that generates or attracts fewer than 110 trips per day. Projects that generate fewer than this threshold may be assumed to cause a less-than-significant transportation impact (OPR, 2018).

The project would require an average of 10 one-way trips per day during construction, as discussed in Impact a) above. The daily number of vehicle trips associated with the project would not exceed 110 trips per day, the OPR's screening threshold for conducting a vehicle traveled analysis. Once constructed, the project would only require occasional maintenance inspection, which would be similar to existing conditions. No new traffic would be generated during operation. The project would not conflict with CEQA Guidelines section 15064.3, subdivision (b). The impact would be less than significant.

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

No Impact

The project would include replacement of the existing Adobe Creek Sewer Main in place and would not introduce geometric design features that are not already present. The project would not require the use of farm equipment. No impact would occur.

d) Result in inadequate emergency access?

Less than Significant Impact with Mitigation Incorporated

As discussed above, neither project construction nor operational activities would permanently alter the physical configuration of the existing roadway network serving the project area. However, temporary traffic delays could affect emergency access. The impact could be significant. Mitigation Measure TRAN-1 requires the contractor to coordinate with local police and fire departments to ensure law enforcement and emergency response personnel are aware of construction and potential delays. The impact would be less than significant with mitigation incorporated.

MITIGATION MEASURES

Mitigation Measure TRAN-1: Traffic Control Plan

To ensure that construction of the project does not adversely interfere with local traffic safety and circulation, a Traffic Control Plan (TCP) shall be prepared for the project. The TCP shall include, but not be limited to the following elements:

- The contractor shall provide flaggers as needed to temporarily hold traffic to safely stage equipment in advance of and/or during construction.
- The contractor shall coordinate with the City of Los Altos and Town of Los Altos Hills' Police and Fire Departments to ensure that construction activities, including staging, and storage of materials in and near the proposed staging areas do not interfere with law enforcement activities, emergency response, or evacuation procedures.
- The contractor shall install advance warning signs to alert pedestrians, bicyclists and motorists regarding construction activities in the project area. Advance warning signs may include reflective signs, cones, or barricades. Signage should state the anticipated duration for construction and reflect that the work is scheduled to occur between the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday.
- Work shall be confined to the immediate project site and performed in a manner that would be least disruptive to the public.
- The contractor shall ensure the public has access to businesses and private driveways at all times.

4.2.18 Tribal 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 tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	☐	☒	☐	☐
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

ENVIRONMENTAL SETTING

A description of the environmental setting related to tribal cultural resources can be found in Section 4.2.5, Cultural Resources.

REGULATORY BACKGROUND

Tribal Cultural Resources Assembly Bill 52 (AB 52)

AB 52 (Chapter 532, Statutes 2014) required an update of the CEQA Guidelines to include questions related to impacts to tribal cultural resources. AB 52 establishes a consultation process with all California Native American Tribes on the Native American Heritage Commission List, Federal and Non-Federal Recognized Tribes. AB 52 also establishes a new class of resources: Tribal Cultural Resources. Key components of AB 52 include consideration of Tribal Cultural Values in determination of project impacts and mitigation, and required Tribal notice and meaningful consultation.

PRC Section 21080.3.2(b) states that consultation ends when either 1) parties agree to mitigation measures or avoid a significant effect on a tribal cultural resource, or 2) a party, acting in good faith and after reasonable effort concludes that mutual agreement cannot be reached.

State of California Public Resources Code

Section 21074 of the PRC defines historical resources related to tribal cultural resources.

a) "Tribal cultural resources" are either of the following:
    1. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
        A. Included or determined to be eligible for inclusion in the California Register of Historical Resources.
        B. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
    2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

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

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

Section 5020.1(k) defines "Local register of historical resources" as a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution.

Section 5024.1 is the establishment of the California Register of Historical Resources (California Register).

ASSESSMENT METHODOLOGY

As part of the Cultural Survey Report, Origer contacted the NAHC on December 7, 2022, to request a review of the Sacred Lands file for information on Native American cultural resources in the area of the project site and to request a list of Native American contacts in this area. Letters were sent to the following groups:

- Amah Mutsun Tribal Band
- Amah Mutsun Tribal Band of Mission San Juan Bautista
- Indian Canyon Mutusn Band of Costanoan
- Muwekma Ohlone Indian Tribe of the San Francisco Bay Area
- North Valley Yokuts Tribe
- The Ohlone Indian Tribe
- Wuksache Indian Tribe/Eshom Valley Band
- Tamien Nation

The NAHC replied with a letter on December 13, 2022 that the Sacred Lands Files has no information about the presence of Native American cultural resources in the project site.

On March 7, 2023, a letter was sent to the Tribal Historic Preservation Officer (THPO) or appropriate representative of each tribal group associated with the project site area. The representatives were identified from a list previously provided by the NAHC for the area.

On March 9, 2023, Quirina Luna Gear, Chairwoman for the Tamien Nation responded via email, stating that the project is in a sensitive area with known tribal cultural resources in the vicinity and they are concerned about the impacts the project may have. The tribe would like the project to be monitored by both a tribal representative and an archaeologist. They also stated that they recommend that a monitoring and treatment plan be developed in collaboration with the Tamien Nation.

To date, no responses have been received from other Native communities regarding the proposed project.

DISCUSSION OF IMPACTS

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

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

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

Less than Significant with Mitigation Incorporated

As described in Section 4.2.5, Cultural Resources, there are no resources listed within the project site. There is one prehistoric resource listed within a quarter mile of the project site; however, project activities would not disturb this resource as it does not extend into the project site. No impact to Tribal Cultural Resources that are listed in the California Register would occur. As described in Section 4.2.5, Cultural Resources, there is potential for unknown cultural resources, including tribal cultural resources, to be discovered during earth-disturbing construction activities, such as excavation and grading. As such, the project would implement Mitigation Measure CUL-1 to ensure that any significant impacts to tribal cultural resources are mitigated to a level of less than significant.

4.2.19 Utilities and Service Systems

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

ENVIRONMENTAL SETTING

Water in the City of Los Altos is supplied by California Water Service Company. The project is located within the Los Altos Suburban District, which falls under the planning jurisdiction of the 2020 Urban Water Management Plan – Los Altos Suburban District (California Water Service Company, 2020). The District's water supply relies on treated surface water purchased from the Santa Clara Valley Water District, groundwater from the Santa Clara Subbasin, and wastewater and recycled water. Wastewater utilities are provided by the City and wastewater is conveyed to the Palo Alto Regional Water Pollution Control Plant for treatment and disposal.

Compost, trash, and recycling services in the City are provided by Mission Trail Waste Systems. Power in the City is available through Silicon Valley Clean Energy or PG&E.

DISCUSSION OF IMPACTS

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?

Less than Significant Impact

The project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities. The project would replace the existing sewer main which would reduce the potential for sewer system overflows and reduce the overall operations and maintenance costs associated with repairing the existing pipelines. During the construction period, temporary piping would be utilized to allow sewer service to continue without interruption. Project operations would not require the relocation or construction of any new or expanded facilities. The impact would be less than significant.

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

No Impact

The project would not significantly increase demand for water supply or require new or expanded water supply entitlements. Planning for future water supplies in the project area is addressed in the 2020 Urban Water Management Plan – Los Altos Suburban District. The project would not conflict with any goals, policies, or activities set forth in this plan. No impact would occur.

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

No Impact

The project would not impact demand for wastewater treatment during construction or operation. Temporary piping would be used during the construction phase of the project so that sewer service can continue without interruption. No impact would occur.

d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less than Significant Impact

The project would generate construction & demolition (C&D) waste during construction, which would need to be disposed of at a facility that accepts C&D waste. Project operations would not cause an increase in solid waste generation. The impact would be less than significant.

e) *Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

Less than Significant Impact

The project would comply with all federal, state, and local management and reduction statutes and regulations related to solid waste. The project would be required to obtain a demolition permit from the City prior to issuance of a building permit. C&D waste from project construction would be disposed of in accordance with all federal, state, and local regulations. Project operation would not result in substantial amounts of solid waste. Therefore, the impact would be less than significant.

4.2.20 Wildfire

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

ENVIRONMENTAL SETTING

The project site is located within a LRA in the City of Los Altos and Town of Los Altos Hills. The project site is situated in a highly developed urban area surrounded by residential, recreational, and commercial land uses. The project is not located in a designated fire hazard severity zone.

DISCUSSION OF IMPACTS

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact

The project would not substantially impair an adopted emergency response plan or emergency evacuation plan. The nearest designated evacuation route is Foothill Expressway, which runs parallel to the project site approximately 250-500 feet east. The project site would not include any portion of Foothill Expressway, nor would project activities or staging areas obstruct the route or prevent residents from accessing the route. No impact would occur.

b) *Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

Less than Significant Impact

The project is located in an area that is highly developed with residences and paved surfaces including roads, driveways, and sidewalks. The project site is not located in a designated fire hazard severity zone or in an area with substantial dry vegetation and open space. During construction, there is potential for fires to ignite from construction equipment that may be used on the project site. Construction activities would follow all relevant policies and regulations and implement BMPs to ensure fire safety and stop the spread of fire in case of ignition. Project operations would not exacerbate wildfire risks. The impact would be less than significant.

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?*

Less than Significant Impact

There is potential for equipment used during project construction to create sparks which could pose an exacerbated fire risk. Construction activities would follow all relevant policies and regulations and implement BMPs to ensure fire safety and stop the spread of fire in case of ignition. Furthermore, all new infrastructure resulting from the project would be underground, and thus would not pose a risk of exacerbating the spread of wildfire. The impact would be less than significant.

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

No Impact

The project would not expose people or structures to significant risks including flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes. The project is not located in a fire hazard severity zone and would not include activities or structures that would exacerbate the risk of wildfire. The project is located in a flat area that is not at risk of landslides. The replacement sewer main would be located underground, and thus would not impact the spread of wildfire or post-wildfire changes in runoff, slope instability, or drainage.

4.2.21 Mandatory Findings of Significance

		Potentially Significant Impact	*Less than Significant with Mitigation Incorporated*	*Less than Significant Impact*	*No Impact*
a)	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c)	Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

DISCUSSION OF IMPACTS

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less than Significant with Mitigation Incorporated

Implementation of the project would not substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of a rara or endangered plant or animal. Implementation of mitigation measures presented in Section 4.2.4 Biological Resources would mitigate potential significant impacts that could substantially degrade the quality of the environment or impact biological resources. Mitigation measures presented in Section 4.2.5 Cultural Resources and Section 4.2.18 would ensure that the

project would not significantly affect previously undiscovered resources or eliminate important examples of the major periods of California history or prehistory.

Given the fact that potential impacts to biological and cultural resources would primarily occur during active construction (not long term) and that measures have been identified to reduce these temporary impacts, impacts would not be considered significant. Impacts would be less than significant with mitigation incorporated.

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

Less than Significant Impact

Cumulative considerable means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. Caltrans currently has four projects in planning in Santa Clara County, including:

- 9 Saratoga Creek Bridge – This project would replace the Saratoga Creek Bridge on State Route 9, Saratoga. Construction work was planned to begin in Spring 2023.
- 82 El Camino Real (SR-82) Pavement Rehabilitation Project (McKendrie Street to El Camino Real) – This project is located in the City of Santa Clara and the City of San Jose, on Route 82 from McKendrie Street to El Camino Real. The project would rehabilitate the existing pavement and install a High-Intensity activated crosswalk system.
- 82 El Camino Real (SR-82) Pavement Rehabilitation and ADA Improvements (0.5 mile north of SR-237 to Sand Hill Road) – This project proposes to rehabilitate the pavement and upgrade the existing non-standard ADA curb ramps along SR-82 from 0.5 mile north of SR-237 to Sand Hill Road.
- Caltrans' U.S. 101 Project, Institute for Sustainable Infrastructure – This project includes constructing 22 miles of express lanes in each direction of U.S. 101 in San Mateo County by removing the existing high-occupancy vehicle lanes.
- All of these projects, with the exception of SR-82 Pavement Rehabilitation and ADA Improvements from 0.5 mile north of SR-237 to Sand Hill Road, are not located in or near the City of Los Altos, and therefore would not contribute to cumulative impacts with the proposed project. The Caltrans project from 0.5 mile north of SR-237 to Sand Hill Road would include construction along SR-82 through the City of Los Altos. This stretch of SR-82 is located approximately 1.80 miles northeast of the project site. Cumulative impacts of this project when considered along with the impacts of the proposed project would not constitute a significant cumulative impact, as these projects are of two different types, and are not close enough in proximity to have overlapping areas of potential impacts. Furthermore, both the SR-82 pavement rehabilitation project and the proposed project are both maintenance-type projects, and thus would not increase the capacity of existing infrastructure to create significant growth or an increased need for other utilities, public facilities, housing, or other infrastructure.

- The City currently has four development/redevelopment projects, two transportation projects, and one special project in planning within 1,000 feet of the project site. The four development/redevelopment projects are located along First Street, west of the project site across Foothill Expressway. Construction of these projects would not pose a significant cumulative impact when considered with the proposed project due to their proximity. The two transportation projects include a Rectangular Rapid-Flashing Beacon (RRFB) replacement at University Avenue and West Edith Avenue, and the Annual Street Resurfacing Project. The RFFB project is minor in scale and would not constitute a significant impact when considered with the proposed project. It is possible that the Annual Street Resurfacing Project could create a significant cumulative impact regarding noise, traffic, and air quality if certain stretches of road are paved in the same proximity as the project site while the proposed project is under construction. If there are road segments within 1000 feet of the project site that need to be resurfaced, the City would ensure that construction on these segments would not occur simultaneously with construction of the proposed project. The City's special project would include the relocation of a Walter Singer Bust to Lincoln Park, which is adjacent west of the project site. This project would not create a significant cumulative impact when considered with the project due to the short-term nature of the project.
- The Town of Los Altos Hills has one project in planning to conduct maintenance on a pathway into Redwood Grove from the south end of Fremont Road. Due to the minor nature of this project, it would not constitute a significant cumulative impact when considered with the proposed project.

c) *Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?*

Less than Significant with Mitigation Incorporated

The proposed project would replace the existing Adobe Creek sewer main, which is situated throughout residential and recreational areas in the City of Los Altos and Town of Los Altos Hills. Potential impacts to humans in the project vicinity have been analyzed in this IS/MND, including Air Quality, Noise, and Transportation. Project construction would cause potential temporary impacts to humans, which would be considered less than significant under CEQA with the implementation of Mitigation Measures AIR-1, AIR-2, NOI-1, and TRAN-1. AIR-1 and AIR-2 would require the project applicant to implement BAAQMD-recommended fugitive dust control measures and ensure that construction equipment meets USEPA emission control standards. NOI-1 would require the project applicant to implement construction noise reduction measures, including construction noise barriers, avoidance of unnecessary equipment idling, and a designated disturbance coordinator to resolve complaints regarding construction noise. TRAN-1 would require the project applicant to prepare a Traffic Control Plan that includes measures to ensure traffic safety and minimize impacts to local traffic circulation to the maximum extent feasible during project construction. With the implementation of these mitigation measures, potential environmental impacts of the project would not cause substantial adverse effects on human beings, either directly or indirectly. The impacts would be less than significant with mitigation incorporated.

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APPENDIX A. CALIFORNIA EMISSIONS ESTIMATOR MODEL

Adobe Creek Sewer Custom Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

3. Construction Emissions Details

3.1. Linear, Grading & Excavation (2023) - Unmitigated

3.3. Linear, Grading & Excavation (2024) - Unmitigated

3.5. Linear, Grading & Excavation (2025) - Unmitigated

3.7. Linear, Grading & Excavation (2026) - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Adobe Creek Sewer
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.70
Precipitation (days)	32.8
Location	13730 Burke Rd, Los Altos Hills, CA 94022, USA
County	Santa Clara
City	Los Altos Hills
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1720
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	City of Palo Alto Ultilities

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Road Construction	1.25	Mile	0.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.82	0.69	5.60	8.61	0.01	0.34	0.10	0.43	0.31	0.02	0.33	—	1,467	1,467	0.06	0.03	0.56	1,477
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.15	0.12	1.01	1.55	< 0.005	0.06	0.02	0.08	0.06	< 0.005	0.06	—	264	264	0.01	< 0.005	0.04	266
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.03	0.02	0.19	0.28	< 0.005	0.01	< 0.005	0.01	0.01	< 0.005	0.01	—	43.8	43.8	< 0.005	< 0.005	0.01	44.1

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.82	0.69	5.60	7.39	0.01	0.34	0.10	0.43	0.31	0.02	0.33	—	1,265	1,265	0.06	0.03	0.56	1,274
2024	0.75	0.63	5.36	7.49	0.01	0.29	0.10	0.38	0.26	0.02	0.29	—	1,299	1,299	0.05	0.03	0.53	1,308

2025	0.75	0.63	5.04	7.85	0.01	0.29	0.10	0.39	0.27	0.02	0.29	—	1,369	1,369	0.06	0.03	0.50	1,378
2026	0.82	0.69	5.39	8.61	0.01	0.32	0.10	0.41	0.29	0.02	0.31	—	1,467	1,467	0.06	0.03	0.46	1,477
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
2024	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
2025	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
2026	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.15	0.12	1.01	1.32	< 0.005	0.06	0.02	0.08	0.06	< 0.005	0.06	—	228	228	0.01	< 0.005	0.04	229
2024	0.13	0.11	0.96	1.32	< 0.005	0.05	0.02	0.07	0.05	< 0.005	0.05	—	230	230	0.01	< 0.005	0.04	232
2025	0.13	0.11	0.90	1.39	< 0.005	0.05	0.02	0.07	0.05	< 0.005	0.05	—	243	243	0.01	< 0.005	0.04	245
2026	0.15	0.12	0.98	1.55	< 0.005	0.06	0.02	0.07	0.05	< 0.005	0.06	—	264	264	0.01	< 0.005	0.04	266
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.03	0.02	0.19	0.24	< 0.005	0.01	< 0.005	0.01	0.01	< 0.005	0.01	—	37.7	37.7	< 0.005	< 0.005	0.01	38.0
2024	0.02	0.02	0.17	0.24	< 0.005	0.01	< 0.005	0.01	0.01	< 0.005	0.01	—	38.1	38.1	< 0.005	< 0.005	0.01	38.4
2025	0.02	0.02	0.16	0.25	< 0.005	0.01	< 0.005	0.01	0.01	< 0.005	0.01	—	40.2	40.2	< 0.005	< 0.005	0.01	40.5
2026	0.03	0.02	0.18	0.28	< 0.005	0.01	< 0.005	0.01	0.01	< 0.005	0.01	—	43.8	43.8	< 0.005	< 0.005	0.01	44.1

3. Construction Emissions Details

3.1. Linear, Grading & Excavation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	0.65	5.47	6.91	0.01	0.33	—	0.33	0.31	—	0.31	—	1,098	1,098	0.04	0.01	—	1,102
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	0.99	1.25	< 0.005	0.06	—	0.06	0.06	—	0.06	—	199	199	0.01	< 0.005	—	199
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.18	0.23	< 0.005	0.01	—	0.01	0.01	—	0.01	—	32.9	32.9	< 0.005	< 0.005	—	33.0
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.43	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	81.1	81.1	< 0.005	< 0.005	0.37	82.5
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.1	11.1	< 0.005	< 0.005	0.03	11.6
Hauling	0.01	< 0.005	0.09	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	74.6	74.6	0.01	0.01	0.16	78.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.7	13.7	< 0.005	< 0.005	0.03	13.9
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.01	2.01	< 0.005	< 0.005	< 0.005	2.10
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.5	13.5	< 0.005	< 0.005	0.01	14.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.27	2.27	< 0.005	< 0.005	< 0.005	2.31
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.33	0.33	< 0.005	< 0.005	< 0.005	0.35
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.23	2.23	< 0.005	< 0.005	< 0.005	2.35

3.3. Linear, Grading & Excavation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.71	0.59	5.24	7.05	0.01	0.29	—	0.29	0.26	—	0.26	—	1,135	1,135	0.05	0.01	—	1,139

Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.93	1.25	< 0.005	0.05	—	0.05	0.05	—	0.05	—	202	202	0.01	< 0.005	—	203
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.17	0.23	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.5	33.5	< 0.005	< 0.005	—	33.6
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.40	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	79.6	79.6	< 0.005	< 0.005	0.34	80.8
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.0	11.0	< 0.005	< 0.005	0.03	11.5
Hauling	0.01	< 0.005	0.08	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	73.4	73.4	0.01	0.01	0.16	77.2

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.3	13.3	< 0.005	< 0.005	0.03	13.5
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.95	1.95	< 0.005	< 0.005	< 0.005	2.05
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.1	13.1	< 0.005	< 0.005	0.01	13.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.20	2.20	< 0.005	< 0.005	< 0.005	2.23
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.32	0.32	< 0.005	< 0.005	< 0.005	0.34
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.16	2.16	< 0.005	< 0.005	< 0.005	2.27

3.5. Linear, Grading & Excavation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.71	0.59	4.92	7.44	0.01	0.29	—	0.29	0.27	—	0.27	—	1,208	1,208	0.05	0.01	—	1,212
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.88	1.32	< 0.005	0.05	—	0.05	0.05	—	0.05	—	215	215	0.01	< 0.005	—	216
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.16	0.24	< 0.005	0.01	—	0.01	0.01	—	0.01	—	35.6	35.6	< 0.005	< 0.005	—	35.7
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.37	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	78.0	78.0	< 0.005	< 0.005	0.31	79.2
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.8	10.8	< 0.005	< 0.005	0.03	11.3
Hauling	0.01	< 0.005	0.08	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	72.0	72.0	0.01	0.01	0.16	75.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.02	13.2
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.92	1.92	< 0.005	< 0.005	< 0.005	2.01

Hauling	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.8	12.8	< 0.005	< 0.005	0.01	13.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.15	2.15	< 0.005	< 0.005	< 0.005	2.18
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.32	0.32	< 0.005	< 0.005	< 0.005	0.33
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.12	2.12	< 0.005	< 0.005	< 0.005	2.23

3.7. Linear, Grading & Excavation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	0.66	5.28	8.22	0.01	0.31	—	0.31	0.29	—	0.29	—	1,309	1,309	0.05	0.01	—	1,314
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	0.96	1.49	< 0.005	0.06	—	0.06	0.05	—	0.05	—	237	237	0.01	< 0.005	—	238
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.17	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	39.2	39.2	< 0.005	< 0.005	—	39.3
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.35	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	76.5	76.5	< 0.005	< 0.005	0.28	77.7
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.6	10.6	< 0.005	< 0.005	0.03	11.1
Hauling	0.01	< 0.005	0.08	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	70.6	70.6	0.01	0.01	0.15	74.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.0	13.0	< 0.005	< 0.005	0.02	13.1
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.92	1.92	< 0.005	< 0.005	< 0.005	2.01
Hauling	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.8	12.8	< 0.005	< 0.005	0.01	13.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.15	2.15	< 0.005	< 0.005	< 0.005	2.18
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.32	0.32	< 0.005	< 0.005	< 0.005	0.33
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.11	2.11	< 0.005	< 0.005	< 0.005	2.22

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Phase 2023	Linear, Grading & Excavation	6/1/2023	8/31/2023	5.00	66.0	—
Phase 2024	Linear, Grading & Excavation	6/1/2024	8/31/2024	5.00	65.0	—
Phase 2025	Linear, Grading & Excavation	6/1/2025	8/31/2025	5.00	65.0	—
Phase 2026	Linear, Grading & Excavation	6/1/2026	8/31/2026	5.00	66.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Phase 2023	Excavators	Diesel	Average	1.00	2.73	158	0.38
Phase 2024	Excavators	Diesel	Average	1.00	2.73	158	0.38
Phase 2024	Generator Sets	Diesel	Average	1.00	3.64	84.0	0.38
Phase 2024	Off-Highway Tractors	Diesel	Average	1.00	3.64	124	0.36
Phase 2024	Other Construction Equipment	Diesel	Average	1.00	4.54	172	0.48
Phase 2024	Paving Equipment	Diesel	Average	0.00	1.21	132	0.37
Phase 2023	Generator Sets	Diesel	Average	1.00	3.64	84.0	0.41
Phase 2023	Off-Highway Tractors	Diesel	Average	1.00	3.64	124	0.38
Phase 2023	Other Construction Equipment	Diesel	Average	1.00	4.54	172	0.36
Phase 2023	Plate Compactors	Diesel	Average	1.00	1.21	8.00	0.48

Phase 2023	Rough Terrain Forklifts	Diesel	Average	1.00	0.91	100	0.37
Phase 2023	Sweepers/Scrubbers	Diesel	Average	1.00	0.73	64.0	0.37
Phase 2024	Plate Compactors	Diesel	Average	1.00	1.21	8.00	0.43
Phase 2024	Rough Terrain Forklifts	Diesel	Average	1.00	0.92	100	0.40
Phase 2024	Sweepers/Scrubbers	Diesel	Average	1.00	0.74	64.0	0.46
Phase 2025	Cement and Mortar Mixers	Diesel	Average	1.00	1.85	9.00	0.56
Phase 2025	Excavators	Diesel	Average	1.00	2.77	158	0.38
Phase 2025	Forklifts	Diesel	Average	1.00	0.92	82.0	0.20
Phase 2025	Off-Highway Tractors	Diesel	Average	1.00	3.69	124	0.44
Phase 2025	Other Construction Equipment	Diesel	Average	1.00	4.62	172	0.42
Phase 2025	Pavers	Diesel	Average	1.00	1.23	130	0.42
Phase 2025	Paving Equipment	Diesel	Average	1.00	1.23	132	0.36
Phase 2025	Plate Compactors	Diesel	Average	1.00	1.23	8.00	0.43
Phase 2025	Rough Terrain Forklifts	Diesel	Average	1.00	0.92	100	0.40
Phase 2025	Sweepers/Scrubbers	Diesel	Average	1.00	0.74	64.0	0.46
Phase 2026	Cement and Mortar Mixers	Diesel	Average	1.00	1.82	9.00	0.56
Phase 2026	Excavators	Diesel	Average	1.00	2.73	158	0.38
Phase 2026	Forklifts	Diesel	Average	1.00	0.91	82.0	0.20
Phase 2026	Off-Highway Tractors	Diesel	Average	1.00	3.64	124	0.44
Phase 2026	Other Construction Equipment	Diesel	Average	1.00	4.54	172	0.42
Phase 2026	Pavers	Diesel	Average	1.00	1.21	130	0.42
Phase 2026	Paving Equipment	Diesel	Average	1.00	1.21	132	0.36
Phase 2026	Plate Compactors	Diesel	Average	1.00	1.21	8.00	0.43
Phase 2026	Rough Terrain Forklifts	Diesel	Average	1.00	0.91	100	0.40
Phase 2026	Sweepers/Scrubbers	Diesel	Average	1.00	0.73	64.0	0.46

Phase 2023	Pavers	Diesel	Average	1.00	1.21	130	0.42
Phase 2023	Paving Equipment	Diesel	Average	1.00	1.21	132	0.36
Phase 2024	Pavers	Diesel	Average	1.00	1.23	130	0.42
Phase 2023	Cement and Mortar Mixers	Diesel	Average	1.00	1.82	9.00	0.56
Phase 2024	Cement and Mortar Mixers	Diesel	Average	1.00	1.85	9.00	0.56
Phase 2025	Generator Sets	Diesel	Average	1.00	3.64	84.0	0.41
Phase 2026	Generator Sets	Diesel	Average	1.00	3.64	84.0	0.74
Phase 2023	Forklifts	Diesel	Average	1.00	0.91	82.0	0.20
Phase 2024	Forklifts	Diesel	Average	1.00	0.91	82.0	0.20

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Phase 2023	—	—	—	—
Phase 2023	Worker	9.10	11.7	LDA,LDT1,LDT2
Phase 2023	Vendor	0.40	8.40	HHDT,MHDT
Phase 2023	Hauling	0.20	103	HHDT
Phase 2023	Onsite truck	—	—	HHDT
Phase 2024	—	—	—	—
Phase 2024	Worker	9.10	11.7	LDA,LDT1,LDT2
Phase 2024	Vendor	0.40	8.40	HHDT,MHDT
Phase 2024	Hauling	0.20	103	HHDT
Phase 2024	Onsite truck	—	—	HHDT
Phase 2025	—	—	—	—
Phase 2025	Worker	9.10	11.7	LDA,LDT1,LDT2

Phase 2025	Vendor	0.40	8.40	HHDT,MHDT
Phase 2025	Hauling	0.20	103	HHDT
Phase 2025	Onsite truck	—	—	HHDT
Phase 2026	—	—	—	—
Phase 2026	Worker	9.10	11.7	LDA,LDT1,LDT2
Phase 2026	Vendor	0.40	8.40	HHDT,MHDT
Phase 2026	Hauling	0.20	103	HHDT
Phase 2026	Onsite truck	—	—	HHDT

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Construction schedule specified by client.
Construction: Off-Road Equipment	Equipment list supplied by client
Construction: Off-Road Equipment EF	—
Construction: Trips and VMT	Calculated based on data provided by client

APPENDIX B. BIOLOGICAL RESOURCES TECHNICAL REPORT

Adobe Creek Sewer Main Replacement Project

Biological Resources Technical Report

City of Los Altos and Town of Los Altos Hills, Santa Clara County, California



Prepared for:

Schaaf and Wheeler
4699 Old Ironsides Dr., Ste. 350
Santa Clara, CA 95054

Attn: Glen Anderson

GAnderson@swsv.com

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Prepared by:

WRA, Inc.
2169 G East Francisco Boulevard
San Rafael, CA 94901

Attn: Kevin Schwartz

kevin.schwartz@wra-ca.com

WRA#30194

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TABLE OF CONTENTS

1.0 INTRODUCTION 1
1.1 Overview and Purpose 1
1.2 Project Description 1
2.0 REGULATORY BACKGROUND 2
2.1 Federal and State Regulatory Setting 2
2.1.1 Vegetation and Aquatic Communities 2
2.1.2 Special-status Species 3
2.2 Local Regulatory Setting 5
3.0 ASSESSMENT METHODOLOGY 7
3.1 Vegetation Communities and Other Land Cover Types 7
3.2 Special-status Species 8
3.2.1 General Assessment 8
3.3 Wildlife Corridors and Native Wildlife Nursery Sites 9
4.0 ECOLOGICAL SETTING 10
4.1 Soils and Topography 10
4.2 Climate and Hydrology 10
4.3 Land-use 10
5.0 ASSESSMENT RESULTS 12
5.1 Vegetation Communities and Other Land Cover 12
5.1.1 Terrestrial Land Cover 12
5.1.2 Aquatic Resources 12
5.2 Special-status Species 13
5.2.1 Special-status Plants 13
5.2.2 Special-status Wildlife 13
5.3 Critical Habitat, Wildlife Corridors and Native Wildlife Nursery Sites 14
6.0 SUMMARY AND RECOMMENDATIONS 16
6.1 Biological Communities 16
6.2 Special-Status Plant Species 16
6.3 Special-Status Wildlife Species 16
6.4 Wildlife Corridors and Nursery Sites 18
6.5 Local Policies and Ordinances 18
7.0 REFERENCES 19

LIST OF TABLES

Table 1. Land Cover Types 12
Table 2. Potential Special-status Wildlife 14

LIST OF APPENDICES

Appendix A – Figures
Figure 1. Study Area Location
Figure 2. Study Area
Figure 3. Soils
Figure 4. Biological Communities within the Study Area
Appendix B – Species Observed within and around the Study Area
Appendix C – Special-Status Species Potential Table
Appendix D – Study Area Photographs

DEFINITIONS

Study Area: The area throughout which the assessment was performed, inclusive of a sewer main (53 sewer lines) through 24 private parcels and 5 public parcels buffered by 50 feet on either side of the sewer main.

LIST OF ACRONYMS

BIOS	Biogeographic Information and Observation System
BMP	Best Management Practice
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	U.S. Army Corps of Engineers
CSRL	California Soil Resources Laboratory
CWA	Clean Water Act
EFH	Essential Fish Habitat
ESA	Federal Endangered Species Act
Inventory	CNPS Rare and Endangered Plan Inventory
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation & Management
MBTA	Migratory Bird Treaty Act
NCCP	National Community Conservation Plan
NPPA	National Plant Protection Act
NMFS	National Marine Fisheries Service
NRCS	Natural Resources Conservation Service
NWI	National Wetland Inventory
OHWM	Ordinary High Water Mark
Rank	California Rare Plant Ranks
RWQCB	Regional Water Quality Control Board
SSC	Species of Special Concern
SWRCB	State Water Resource Control Board
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WBWG	Western Bat Working Group
WPT	Western Pond Turtle
WRA	WRA, Inc.

1.0 INTRODUCTION

This Biological Resources Technical Report evaluates existing biological resources for the Adobe Creek Sewer Main Replacement Project (Project) located in the City of Los Altos and Los Altos Hills, Santa Clara County, California (Figures 1 and 2, Appendix A). The Study Area runs parallel to University Avenue along Adobe Creek, and is bordered by W. Edith Avenue on the north and Manresa Avenue on the south.

1.1 Overview and Purpose

This report provides an assessment of biological resources within the Study Area and immediate vicinity. The purpose of the assessment was to develop and gather information on sensitive biological communities and special-status plant and wildlife species in the Study Area. This report describes the results of the site visit, which assessed the Study Area for: (1) the presence of sensitive biological communities, special status plant species, and special status wildlife species, and (2) the potential for the site to support special-status plant and wildlife species. This document may be used to support planning associated with the Project but does not provide an impact analysis that will be required for California Environmental Quality Act (CEQA) compliance.

This assessment provides general information on the presence, or potential presence, of sensitive species and habitats. Additional focused studies (such as protocol-level species surveys or a wetland delineation) may be required to support regulatory permit applications or to implement mitigation measures once the Project is further developed. This assessment is based on information available at the time of the study and on-site conditions that were observed on the date the site was visited. Conclusions are based on currently available information used in combination with the professional judgement of the biologists completing this study.

1.2 Project Description

The proposed Project involves replacing a sewer main, including 53 sewer lines (6,580 linear feet), that extends through 24 private parcels and 5 public parcels. The existing Adobe Creek Sewer Main is at capacity and a previously installed cured in-place pipe liner is failing. The City of Los Altos proposes to replace the existing 6 and 8-inch pipes with new 8-inch pipes. Other goals of the Project include: minimizing or avoiding creek crossings; relocating the sewer main as far from the creek as possible; minimizing impacts to the neighbors, park visitors, and existing trees; improving access to manholes; and replacing or rehabilitating the existing manholes.

2.0 REGULATORY BACKGROUND

The following sections explain the regulatory context of the biological assessment, including applicable laws and regulations that were applied to the field investigations.

2.1 Federal and State Regulatory Setting

2.1.1 Vegetation and Aquatic Communities

CEQA provides protections for particular vegetation types defined as sensitive by the California Department of Fish and Wildlife (CDFW), and aquatic communities protected by laws and regulations administered by the U.S Army Corps of Engineers (Corps), State Water Resources Control Board (SWRCB), and the Regional Water Quality Control Boards (RWQCBs). The laws and regulations that provide protection for these resources are summarized below.

Sensitive Natural Communities: Sensitive natural communities include habitats that fulfill special functions or have special values. Natural communities considered sensitive are those identified in local or regional plans, policies, regulations, or by the CDFW. CDFW ranks sensitive communities as "threatened" or "very threatened" (California Department of Fish and Game [CDFG] 2010, CDFW 2021a) and keeps records of their occurrences in its California Natural Diversity Database (CNDDB; CDFW 2021b). CNDDB vegetation alliances are ranked 1 through 5 based on NatureServe's methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive. Impacts to sensitive natural communities identified in local or regional plans, policies, or regulations or those identified by the CDFW or U.S. Fish and Wildlife Service (USFWS) must be considered and evaluated under CEQA (California Code of Regulation [CCR] Title 14, Div. 6, Chap. 3, Appendix G). In addition, this general class includes oak woodlands that are protected by local ordinances under the Oak Woodlands Protection Act.

Waters of the United States, Including Wetlands: The Corps regulates “Waters of the United States” under Section 404 of the Clean Water Act (CWA). Waters of the United States are defined in the Code of Federal Regulations (CFR) as including the territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, such as tributaries, lakes and ponds, impoundments of waters of the U.S., and wetlands that are hydrologically connected with these navigable features (33 CFR 328.3). Potential wetland areas, according to the three criteria used to delineate wetlands as defined in the Corps Wetlands Delineation Manual (Environmental Laboratory 1987), are identified by the presence of (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. Unvegetated waters including lakes, rivers, and streams may also be subject to Section 404 jurisdiction and are characterized by an ordinary high water mark (OHWM) identified based on field indicators such as the lack of vegetation, sorting of sediments, and other indicators of flowing or standing water. The placement of fill material into Waters of the United States generally requires a permit from the Corps under Section 404 of the CWA.

Waters of the State, Including Wetlands: The term “Waters of the State” is defined by the Porter-Cologne Water Quality Control Act as “any surface water or groundwater, including saline waters, within the boundaries of the state.” The SWRCB and nine RWQCBs protect waters within this broad regulatory scope through many different regulatory programs. Waters of the State in the context of a CEQA Biological Resources evaluation include wetlands and other surface waters

protected by the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*. The SWRCB and RWQCB issue permits for the discharge of fill material into surface waters through the State Water Quality Certification Program, which fulfills requirements of Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. Projects that require a CWA permit are also required to obtain a Water Quality Certification. If a project does not require a federal permit but does involve discharge of dredge or fill material into surface waters of the State, the SWRCB and RWQCB may issue a permit in the form of Waste Discharge Requirements.

Sections 1600-1616 of California Fish and Game Code: Streams and lakes, as habitat for fish and wildlife species, are regulated by CDFW under Sections 1600-1616 of California Fish and Game Code (CFGC). Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. The term "stream", which includes creeks and rivers, is defined in the CCR as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life [including] watercourses having a surface or subsurface flow that supports or has supported riparian vegetation" (14 CCR 1.72). The term "stream" can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG 1994). Riparian vegetation has been defined as "vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself" (CDFG 1994). Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from the CDFW.

2.1.2 Special-status Species

Endangered and Threatened Plants, Fish, and Wildlife. Specific species of plants, fish, and wildlife may be designated as threatened or endangered by the federal Endangered Species Act (ESA), or the California Endangered Species Act (CESA). Specific protections and permitting mechanisms for these species differ under each of these acts, and a species' designation under one law does not automatically provide protection under the other.

The ESA (16 USC 1531 et seq.) is implemented by the USFWS and the National Marine Fisheries Service (NMFS). The USFWS and NMFS maintain lists of "endangered" and "threatened" plant and animal species (referred to as "listed species"). "Proposed" or "candidate" species are those that are being considered for listing and are not protected until they are formally listed as threatened or endangered. Under the ESA, authorization must be obtained from the USFWS or NMFS prior to take of any listed species. Take under the ESA is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Take under the ESA includes direct injury or mortality to individuals, disruptions in normal behavioral patterns resulting from factors such as noise and visual disturbance and impacts to habitat for listed species. Actions that may result in "take" of an ESA-listed species may obtain a permit under ESA Section 10, or via the interagency consultation described in ESA Section 7. Federally listed plant species are only protected when take occurs on federal land.

The ESA also provides for designation of critical habitat, which are specific geographic areas containing physical or biological features "essential to the conservation of the species". Protections afforded to designated critical habitat apply only to actions that are funded, permitted,

or carried out by federal agencies. Critical habitat designations do not affect activities by private landowners if there is no other federal agency involvement.

The CESA (CFGC 2050 et seq.) prohibits a "take" of any plant and animal species that the California Fish and Game Commission determines to be an endangered or threatened species in California. CESA regulations include take protection for threatened and endangered plants on private lands, as well as extending this protection to "candidate species" which are proposed for listing as threatened or endangered under CESA. The definition of a "take" under CESA ("hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") only applies to direct impact to individuals, and does not extend to habitat impacts or harassment. The CDFW may issue an Incidental Take Permit under CESA to authorize take if it is incidental to otherwise lawful activity and if specific criteria are met. Take of these species is also authorized if the geographic area is covered by a Natural Community Conservation Plan (NCCP), as long as the NCCP covers that activity.

Fully Protected Species and Designated Rare Plant Species. This category includes specific plant and wildlife species that are designated in the CFGC as protected even if not listed under CESA or the ESA. Fully Protected Species includes specific lists of birds, mammals, reptiles, amphibians, and fish designated in the CFGC. Fully protected species may not be taken or possessed at any time. No licenses or permits may be issued for the take of fully protected species, except for necessary scientific research and conservation purposes. The definition of "take" is the same under the CFGC and the CESA. By law, the CDFW may not issue an Incidental Take Permit for Fully Protected Species. Under the California Native Plant Protection Act (NPPA), the CDFW has listed 64 "rare" or "endangered" plant species, and prevents "take", with few exceptions, of these species. CDFW may authorize take of species protected by the NPPA through the Incidental Take Permit process, or under a NCCP.

Special Protections for Nesting Birds and Bats. The federal Bald and Golden Eagle Protection Act provides relatively broad protections to both of North America's eagle species (bald [*Haliaeetus leucocephalus*] and golden eagle [*Aquila chrysaetos*]) that in some regards are similar to those provided by the ESA. In addition to regulations for special-status species, most native birds in the U.S., including non-status species, have baseline legal protections under the Migratory Bird Treaty Act of 1918 (MBTA) and CFGC, i.e., Sections 3503, 3503.5 and 3513. Under these laws/codes, the harm or collection of adult birds as well as the collection or destruction of active nests, eggs, and young is illegal. For bat species, the Western Bat Working Group (WBWG) designates conservation status for species of bats, and those with a high or medium-high priority are typically given special consideration under CEQA (WBWG 2020).

Essential Fish Habitat. The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) provides for conservation and management of fishery resources in the U.S., administered by NMFS. This Act establishes a national program intended to prevent overfishing, rebuild overfished stocks, ensure conservation, and facilitate long-term protection through the establishment of Essential Fish Habitat (EFH). EFH consists of aquatic areas that contain habitat essential to the long-term survival and health of fisheries, which may include the water column, certain bottom types, vegetation (e.g., eelgrass (*Zostera* spp.)), or complex structures such as oyster beds. Any federal agency that authorizes, funds, or undertakes action that may adversely affect EFH is required to consult with NMFS.

Species of Special Concern, Movement Corridors, and Other Special Status Species under CEQA. To address additional species protections afforded under CEQA, the CDFW has developed a list of special species as "a general term that refers to all of the taxa the CNDDB is interested in tracking, regardless of their legal or protection status." This list includes lists developed by other organizations, including for example, the Audubon Watch List Species, the Bureau of Land Management Sensitive Species, and USFWS Birds of Special Concern. Plant species on the California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (Inventory) with California Rare Plant Ranks (Rank) of 1, 2, and 3 are also considered special-status plant species and must be considered under CEQA. Rank 4 species are typically only afforded protection under CEQA when such species are particularly unique to the locale (e.g., range limit, low abundance/low frequency, limited habitat) or are otherwise considered locally rare. Additionally, any species listed as sensitive within local plans, policies and ordinances are likewise considered sensitive. Movement and migratory corridors for native wildlife (including aquatic corridors) as well as wildlife nursery sites are given special consideration under CEQA.

2.2 Local Regulatory Setting

City of Los Altos Tree Ordinance. The City of Los Altos has a tree protection ordinance (Municipal Code Section 11.08.010) for any tree greater than 48 inches in circumference, any tree designated as a heritage tree, and/or any tree required by the city to be saved or planted in conjunction with a development review application. Prior to removing a protected tree, a tree removal permit must be obtained.

City of Los Altos Guidelines and Standards for Land Use Near Streams. The City of Los Altos adopted the Water Resources Protection Collaborative Guidelines and Standards for Land Use Near Streams in 2007. This document includes design guidelines for streamside development, including utility crossings.

City of Los Altos Hills Tree Ordinance. Los Altos Hills regulates the removal of Heritage Oaks (Municipal Code Section 120-2.101). Heritage Oaks include any tree in the genus *Quercus* that is greater than or equal to 36 inches in circumference. In order to remove a Heritage Oak, a permit must be obtained and a permit fee must be paid.

City of Los Altos Hills General Plan. The Los Altos Hills General Plan was adopted in 2007 and establishes a framework for community development. The General Plan Chapter 4 includes guidelines on creeks and riparian corridors, trees and plants, wildlife species and habitat, and water resources.

Oak Woodland Conservation Act. Under the California Oak Woodlands Conservation Act, impacts to oak woodlands receive consideration under CEQA regardless of whether or not the woodland is composed of oak (*Quercus* spp.) vegetation types considered to be sensitive by the CDFW. California Public Resources Code 21083.4 requires each county in California to implement an oak woodland protection policy to mitigate for the loss of oak woodlands resultant from approved projects within their jurisdiction. In this policy, oak trees are defined as all native species of oaks larger than 5 inches diameter-at-breast height, or 4.5 feet above grade). At least one of four mitigation alternatives for significant conversions of oak woodlands are required in this regulation: 1) conserve oak woodlands through the use of a conservation easement, 2) plant an appropriate number of trees, including maintaining plantings and replacing dead or diseased trees, 3)

contribute funds to the Oak Woodlands Conservation Fund, as established under Section 1363 (a) of the Fish and Game Code, and 4) other mitigation measures developed by the County.

3.0 ASSESSMENT METHODOLOGY

On May 27, 2021; August 24 and 25, 2022; November 18, 2022; and March 8, 2023, WRA, Inc. (WRA) biologists visited the Study Area to map vegetation, aquatic communities, and unvegetated land cover types, to document plant and wildlife species present, and to evaluate habitat for the potential to support special-status species as defined by CEQA. Prior to the site visit, WRA biologists reviewed literature resources and performed database searches to assess the potential for sensitive biological communities (e.g., wetlands) and special-status species (e.g., endangered plants, locally rare species), including:

- California Soil Resources Laboratory (CSRL) online soil viewer (CSRL 2021)
- *Big Basin, Castle Rock Ridge, Cupertino, Los Gatos, Milpitas, Mindego Hill, Mountain View, Palo Alto,* and *San Jose West* 7.5-minute quadrangles (U.S. Geological Survey [USGS] 2021a)
- Contemporary aerial photographs (Google Earth 2021)
- National Wetlands Inventory (USFWS 2021a)
- California Aquatic Resources Inventory (SFEI 2021)
- California Natural Diversity Database (CNDDB, CDFW 2021b)
- California Native Plant Society Electronic Inventory (CNPS 2021a)
- Consortium of California Herbaria (CCH 2021)
- USFWS Information for Planning and Conservation Database (USFWS 2021b)
- eBird Online Database (eBird 2021)
- CDFW Publication, California Bird Species of Special Concern in California (Shuford and Gardali 2008)
- CDFW and University of California Press publication California Amphibian and Reptile Species of Special Concern (Thomson et al. 2016)
- A Field Guide to Western Reptiles and Amphibians (Stebbins 2003)
- A Manual of California Vegetation, 2nd Edition (Sawyer et al. 2009)
- A Manual of California Vegetation Online (CNPS 2021b)
- Preliminary Descriptions of the Terrestrial Natural Communities (Holland 1986)

Database searches (i.e., CNDDB, CNPS) focused on the *Big Basin, Castle Rock Ridge, Cupertino, Los Gatos, Milpitas, Mindego Hill, Mountain View, Palo Alto,* and *San Jose West* USGS 7.5-minute quadrangles for special-status plants and special-status wildlife species. Following the remote assessment, WRA biologists completed a field review over the course of one day to document: (1) land cover types (e.g., terrestrial communities and aquatic resources), (2) existing conditions to determine if such conditions provide suitable habitat for any special-status plant or wildlife species, (3) if and what type of aquatic natural communities (e.g., wetlands) are present, and (4) if special-status species are present[1].

3.1 Vegetation Communities and Other Land Cover Types

During the site visit, WRA evaluated the species composition and area occupied by distinct vegetation communities, aquatic communities, and other land cover types. Mapping of these classifications utilized a combination of aerial imagery and ground surveys. In most instances,

[1] *Due to the timing of the assessment, it may or may not constitute protocol-level species surveys; see Section 5.2 if the site assessment would constitute a formal or protocol-level species survey.*

communities are characterized and mapped based on distinct shifts in plant assemblage (vegetation) and follow the California Natural Community List (CDFW 2021a), Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986), and A Manual of California Vegetation, Online Edition (CNPS 2021b). These vegetation manuals cannot anticipate every component of every potential vegetation assemblage in California, and so in some cases, it is necessary to identify other appropriate vegetative classifications based on best professional judgment of WRA biologists. When undescribed variants are used, it is noted in the description. Vegetation alliances (natural communities) with a CDFW Rank of 1 through 3 (globally critically imperiled (S1/G1), imperiled (S2/G2), or vulnerable (S3/G3), were evaluated as sensitive as part of this evaluation.

The site was reviewed for the presence of wetlands and other aquatic resources according to the methods described in the *U.S. Army Corps of Engineers Wetlands Delineation Manual* ("Corps Manual"; Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West* (Arid West Supplement, Corps 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). Areas meeting these indicators were mapped as aquatic resources and categorized using the vegetation community classification methods described above. The presence of riparian habitat was evaluated based on woody plant species meeting the definition of riparian provided in *A Field Guide to Lake and Streambed Alteration Agreements, Section 1600-1607, California Fish and Game Code* (CDFG 1994) and based on best professional judgement of biologists completing the field surveys.

3.2 Special-status Species

3.2.1 General Assessment

Potential occurrence of special-status species in the Study Area was evaluated by first determining which special-status species occur in the vicinity of the Study Area through a literature and database review as described above. Presence of suitable habitat for special-status species was evaluated during the site visit based on physical and biological conditions of the site, as well as the professional expertise of the investigating biologists. The potential for each special-status species to occur in the Study Area was then determined according to the following criteria:

- No Potential. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).

- Unlikely. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.

- Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.

- High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.

- Present. Species is observed on the site or has been recorded (i.e. CNDDB, other reports) on the site in the recent past.

If a more thorough assessment was deemed necessary, a targeted or protocol-level assessment or survey was conducted or recommended as a future study. If a special-status species was observed during the site visit, its presence was recorded and discussed below in Section 5.2. If designated critical habitat is present for a species, the extent of critical habitat present and an evaluation of critical habitat elements is provided as part of the species discussions below.

3.3 Wildlife Corridors and Native Wildlife Nursery Sites

To account for potential impacts to wildlife movement/migratory corridors, biologists reviewed maps from the California Essential Connectivity Project (CalTrans 2010), and habitat connectivity data available through the CDFW Biogeographic Information and Observation System (BIOS) (Gogol-Prokurat 2014). Additionally, aerial imagery (Google Earth 2021) for the local area was referenced to assess if local core habitat areas were present within, or connected to the Study Area. This assessment was refined based on observations of on-site physical and/or biological conditions, including topographic and vegetative factors that can facilitate wildlife movement, as well as on-site and off-site barriers to connectivity.

The potential presence of native wildlife nursery sites is evaluated as part of the site visit and discussion of individual wildlife species below. Examples of native wildlife nursery sites include nesting sites for native bird species (particularly colonial nesting sites), marine mammal pupping sites, and colonial roosting sites for other species (such as for monarch butterfly).

4.0 ECOLOGICAL SETTING

The Study Area is located in the City of Los Altos, Santa Clara County, less than 1 mile northeast of Interstate 280 (I-280). The Study Area is situated in residential neighborhoods and includes residences, public parks, and suburban development. Adobe Creek, an intermittent stream, parallels the existing sewer line. The Study Area is positioned in both the City of Los Altos and the City of Los Altos Hills.

4.1 Soils and Topography

The Study Area is characterized by flat terrain associated with residential development. Portions of the Study Area include moderately sloped, intermittent Adobe Creek, Redwood Grove Nature Preserve, and Shoup Park. Elevations in the Study Area range from approximately 170 to 230 feet above sea level (Google Earth 2021). The Study Area is underlain by two soil complexes: Urban land-Flaskan and Literr-Urbanland-Merbeth (CSRL 2021) (Appendix A, Figure 3). The soil complexes within the Study Area are summarized below.

Urban land-Flaskan complex, 0 to 2 percent slopes: This soil complex is well drained and occurs on the backslopes and side slopes of alluvial fans. Urban land consists of disturbed and human transported material while Flaskan parent material is alluvium derived from metamorphic and sedimentary rock and/or alluvium derived from metavolcanics. This complex is not considered hydric and has a low rate of runoff.

Urban land-Flaskan complex, 2 to 9 percent slopes: This soil complex is similar to the one described above.

Literr-Urbanland-Merbeth complex, 9 to 15 percent slopes: This soil complex is well drained and occurs on hills and terraces. Urban land consists of disturbed and human transported material while Literr and Merbeth parent material is old, eroded alluvium. This complex is not considered hydric and has a medium rate of runoff.

4.2 Climate and Hydrology

The Study Area is located in the northwestern region of Santa Clara County, approximately 6 miles southwest of the San Francisco Bay. Precipitation typically falls as rainfall between November and March with an annual average precipitation of 32 inches (U.S. Department of Agriculture [USDA] Natural Resources Conservation Service [NRCS] 2021). The average annual minimum temperature in the Study Area is 48 degrees Fahrenheit, whereas the average annual maximum temperature in the Study Area is 65 degrees Fahrenheit.

The regional watershed is Coyote (HUC 18050003). The Study Area is located in the southern portion of the San Francisco Bay watershed (USGS 2021b). The National Wetlands Inventory (NWI) has mapped one intermittent stream (Adobe Creek) in portions of the Study Area (USFWS 2021). Adobe Creek flows north to the San Francisco Bay.

4.3 Land-use

The majority of the Study Area is currently developed. Developed areas include a network of residential roads, and residences and public parks and their associated landscaping. Detailed

land cover descriptions are included in Section 5.1 below, and all observed plants are included in Appendix B. Surrounding land uses include residential neighborhoods (Google Earth 2021).

5.0 ASSESSMENT RESULTS

5.1 Vegetation Communities and Other Land Cover

WRA observed three land cover/community types within the Study Area: developed/landscaped, mixed riparian woodland, and intermittent stream. Land cover types within the Study Area are illustrated on Figure 4 of Appendix A. The developed/landscaped land cover type is a non-sensitive land cover type in the Study Area, whereas the sensitive communities (i.e., aquatic resources) in the Study Area include the intermittent stream and its associated mixed riparian woodland. Photographs of land cover in the Study Area are provided in Appendix D. Table 1, below, provides a summary of land cover types that were mapped in the Study Area.

Table 1. Land Cover Types

Community/Land Covers	Sensitive Status	Rarity Ranking	Acres (Linear Feet) within Study Area
Terrestrial Community/Land Cover			
Developed/landscaped	Non-sensitive	-	15.13
Aquatic Resources			
Intermittent Stream	Sensitive	-	0.82 (3,319)
Mixed Riparian woodland	Sensitive	-	6.45

5.1.1 Terrestrial Land Cover

Developed/landscaped. The Study Area contains approximately 15.13 acres of developed/landscaped land cover. Developed/landscaped areas in the Study Area include residential roads, residences, and public parks. Developed/landscaped land cover in the Study Area was either devoid of vegetation (roads, driveways, houses, porches, etc.) or the vegetation present consisted of ornamental varieties used for landscaping (lawns, Italian cypress [*Cupressus sempervirens*], oleander [*Nerium oleander*], etc.).

Mixed Riparian Woodland. Mixed riparian woodland occupies approximately 6.45 acres of the Study Area. Mixed riparian woodland was mapped on the banks of Adobe Creek, above the OHWM, and was bordered on all sides by developed/landscaped areas. The overstory canopy was sparse to intermittent, comprised of a mix of riparian tree species, including arroyo willow (*Salix lasiolepis*), bigleaf maple (*Acer macrophyllum*), buckeye (*Aesculus californica*), California bay (*Umbellularia californica*), coast redwood (*Sequoia sempervirens*), and valley oak (*Quercus lobata*). The understory was sparse to dense. American dogwood (*Cornus sericea*), California wild rose (*Rosa californica*), Himalayan blackberry (*Rubus armeniacus*), and blue elderberry (*Sambucus nigra* ssp. *caerulea*) occur in the shrub layer. Canary ivy (*Hedera canariensis*), common snowberry (*Symphoricarpos albus* var. *laeviagtus*), stinging nettle (*Urtica dioica*), and vinca (*Vinca major*) dominate the herbaceous layer where vegetation is dense.

5.1.2 Aquatic Resources

Intermittent Stream. Approximately 0.82 acre (3,319 linear feet) of intermittent stream (Adobe Creek) occurs in the Study Area, with 0.05 acre culverted. The boundary of the intermittent stream was determined based on scour, wracking, and a discernable bed and bank. The intermittent

stream was mostly dry at the time of the site visit. Water was observed within the intermittent stream at the southern end of the Study Area. Adobe Creek originates from higher elevations on Black Mountain in Santa Clara County and conveys stormwater flows north eventually flowing into the San Francisco Bay. Intermittent streams are sensitive biological communities.

5.2 Special-status Species

5.2.1 Special-status Plants

Based upon a review of the resource databases listed in Section 3.0, 84 special-status plant species have been documented in the vicinity of the Study Area. One of these species has a moderate potential to occur in the Study Area, western leatherwood (*Dirca occidentalis*). The remaining species documented in the greater vicinity are unlikely or have no potential to occur for one or more of the following:

- Hydrologic conditions (e.g., marshes and swamps, meadows and seeps, mesic grassland, playas, vernal pools,) necessary to support the special-status plant species are not present in the Study Area
- Edaphic (soil) conditions (e.g., serpentine) necessary to support the special-status plant species are not present in the Study Area
- Topographic conditions (e.g., coastal bluffs, coastal dunes, montane) necessary to support the special-status plant species are not present in the Study Area
- Unique pH conditions (e.g., alkaline depressions) necessary to support the special-status plant species are not present in the Study Area
- Associated natural communities (e.g., broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland) necessary to support the special-status plant species are not present in the Study Area
- The Study Area is geographically isolated (e.g. below elevation) from the documented range of the special-status plant species

WRA biologists did not observe any special-status species during the May 27, 2021 site visit. Species with potential habitat in the Study Area are summarized below.

Western Leatherwood (*Dirca occidentalis*) Rank 1B.2. Moderate Potential. Western leatherwood is a native shrub in the Thymelaeaceae family that blooms from January through March. It typically grows on north or northeast facing slopes in mixed evergreen forests. It is often found in riparian habitat. Though the Study Area contains suitable habitat for this species, there are no records of this species within 3 miles of the Study Area (CDFW 2021b).

5.2.2 Special-status Wildlife

Of the 48 special-status wildlife species documented in the vicinity of the Study Area, most are unlikely to occur in the Study Area based on lack of habitat features. Features not found within the Study Area that are required to support special-status species include:

- Tidal marsh areas
- Sandy dunes or friable soils
- Old growth conifers or mature dense forest
- Sandy beaches or alkaline flats
- Presence of specific host plants
- Cliffs, caves, mines, or abandoned buildings
- Estuaries or brackish waters

The absence of such habitat features eliminates components critical to the survival or movement of most special-status species found in the vicinity. Given the Study Area's relative proximity to sensitive habitats on the San Francisco Bay, many species documented nearby are additionally obligates to marine or tidal marsh habitats which are not present in the immediate vicinity of the Study Area. Three special-status species have potential to occur in the immediate vicinity of or in portions of the Study Area: pallid bat (*Antrozous pallidus*), western pond turtle (WPT*; Actinemys [Emys] marmorata*), and San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*). These species are discussed in greater detail below and in Table 2.

Table 2. Potential Special-status Wildlife

Scientific Name	Common Name	Conservation Status*	Potential Habitat in the Study Area
Other Special-status Wildlife (CEQA, other)			
Actinemys [Emys] marmorata	western pond turtle; WPT	SSC	The creek has a dense canopy and is within a developed area containing few basking sites or suitable open habitat to support egg laying. However, this species may occur in Adobe Creek when water is present during periods of low flow.
Antrozous pallidus	pallid bat	SSC, WBWG High	Occupies woodlands. May utilize large trees or buildings for roosting.
Neotoma fuscipes annectens	San Francisco dusky-footed woodrat	SSC	Portions of the Study Area contains moderate understory that may support this species. Two woodrat structures were observed in the southern portion of the Study Area.

*Conservation Status

SSC CDFW Species of Special Concern

WBWG Western Bat Working Group High or Medium Priority

5.3 Critical Habitat, Wildlife Corridors and Native Wildlife Nursery Sites

Critical Habitat: The Study Area is not within any designated critical habitat.

Wildlife Corridor: Wildlife movement between suitable habitat areas can occur via open space areas lacking substantial barriers. The terms "landscape linkage" and "wildlife corridor" are often used when referring to these areas. The key to a functioning corridor or linkage is that it connects two larger habitat blocks, also referred to as core habitat areas (Beier 1992, Soule and Terborgh 1999). It is useful to think of a "landscape linkage" as being valuable in a regional planning context, a broad scale mapping of natural habitat that functions to join two larger habitat blocks. The term "wildlife corridor" is useful in the context of smaller, local area planning, where wildlife movement may be facilitated by specific local biological habitats or passages and/or may be

restricted by barriers to movement. Above all, wildlife corridors must link two areas of core habitat and should not direct wildlife to developed areas or areas that are otherwise void of core habitat (Hilty et al. 2006).

The Study Area is not within a designated wildlife corridor (Gogol-Prokurat 2014; Spencer et al. 2010). Given the location of the Study Area within a greater urban area, the Study Area does not serve to link two areas of core habitat. However, Adobe Creek likely facilitates movement of local terrestrial and aquatic wildlife species.

Wildlife Nursery Sites: The Study Area is not known to support a native nursery or nesting site, such as colonial bird nesting or colonial roosting (i.e., monarch butterfly).

6.0 SUMMARY AND RECOMMENDATIONS

Two sensitive biological communities were identified within the Study Area. One special-status plant species and three special-status wildlife species have a moderate or high potential to occur within the Study Area. The following sections present recommendations for future studies and/or measures to avoid or reduce impacts to these species and sensitive habitats.

6.1 Biological Communities

The Study Area contains sensitive biological communities, including an intermittent stream and its associated mixed riparian woodland habitat. These features should be avoided to the greatest extent feasible. Avoidance and minimization measures, as well as Best Management Practices (BMPs), shall be employed to protect these features to the extent feasible.

The intermittent stream is considered a water of the U.S./State. The Project has been designed specifically to avoid in-water work below the OHWM; thus, a Section 404 permit from the Corps will **NOT** be needed. The Project requires <0.01 acre of work below top of bank, which will require a Section 401 water quality certification from the RWQCB and Section 1602 Lake and Streambed Alteration Agreement (LSAA) from the CDFW. Additionally, there will be 0.23 acre of temporary impacts to the mixed riparian habitat (extending out to the outer dripline of riparian vegetation) which will require 0.23 acre of mitigation. All disturbed areas will be reseeded and planted with appropriate native plants to the area.

6.2 Special-Status Plant Species

One (1) special-status plant species was determined to have a moderate potential to occur within the Study Area (Appendix C). Prior to the implementation of the Project, protocol-level rare plant surveys are recommended during the peak bloom periods (January through March) of the target species to determine species presence or absence within the Project's limit of disturbance. These surveys would not need to be conducted across the entire Study Area. Rather, targeted surveys should be conducted where suitable habitat (mixed riparian woodland) intersects with the Project's limit of disturbance. If special-status plant species are located during protocol-level surveys, appropriate avoidance and minimization measures should be adopted. If impacts to such species cannot be avoided, mitigation measures, such as seed collection, planting (for annuals and bi-annuals), or transplantation (perennials), may be warranted.

6.3 Special-Status Wildlife Species

A total of three (3) special-status wildlife species were determined to have moderate or high potential to occur within the Study Area. In addition, native nesting birds protected by the CFGC may nest within the Study Area. Recommendations are provided for future studies and/or typical measures that may be required to avoid or reduce impacts to these species and sensitive habitats.

Roosting Bats

Special-status (pallid bat) and non-status bat species have potential to roost within the Study Area. Direct impacts to roosting special-status bat species could occur if there is the removal or modification of large trees (diameter-at-breast height >16 inches) or snags. No habitat suitable for maternity roosting was observed in the Study Area. Day or night-roosting bats may utilize

larger trees (>16 inches) within the Study Area. If tree are to be removed or trimmed, the following measures are recommended to avoid impacts to roosting bats:

- If large trees (diameter-at-breast height >16 inches) are to be removed, they should be allowed to lay on the ground for one night to allow any undetected roosting bats to leave the tree before it is chipped or taken off-site.

Nesting Birds

Non-status bird species protected under the CFCG may use the Study Area for nesting. If initial vegetation removal and ground disturbance occur, these activities may impact nesting birds (including active nests with eggs or young) either directly or indirectly through noise or visual disturbance. The following measures are recommended to avoid impacts to nesting birds:

- If vegetation removal or initial ground disturbance activities occur during the nesting season, defined as February 1 through August 31, then a pre-construction nesting bird survey within the work area should be completed by a biologist no more than 14 days prior to the start of work.

- If active nests (nests with eggs and/or chicks) are observed during the pre-construction survey, project activities should avoid the area as determined by the biologist and resume the protective buffer only after the young have fledged the nest or the nest otherwise becomes inactive. Buffer size should be determined by the biologist based on species, nest location, planned disturbance footprint, and presence of any visual or auditory buffers. Buffers for golden eagle may be up to 0.5 mile.

Western pond turtle

If Project work occurs when Adobe Creek is flowing or ponded, western pond turtle may be directly impacted during ground disturbing work.

- Ground disturbance and vegetation removal is recommended to occur during the summer months. If ground disturbance within 300 feet of Adobe Creek occurs when Adobe Creek is flowing or ponded, pre-construction surveys should be conducted within 48 hours of initial ground disturbance.

- If WPT is observed, the biologists should provide measures to avoid directly impacting the species based on the planned work; such measures may include a protective no work buffer, exclusion fencing, or monitoring.

- A habitat assessment by a qualified biologist is recommended to determine if further measures are required.

San Francisco dusky-footed woodrat

Project activities that require ground disturbance or vegetation removal in riparian areas may impact woodrats, if present. A typical measure to reduce impacts to woodrat is:

- Prior to vegetation removal and/or ground disturbance within suitable habitat, a pre-construction survey for woodrat structures/houses shall be conducted by a qualified biologist. Any woodrat structures found during the survey shall be flagged and avoided to the fullest extent feasible. If avoidance is not possible, then structures to be impacted shall be dismantled by hand under the supervision of a qualified biologist. If woodrat young are encountered during the dismantling process, the material shall be placed back on the house, and a work exclusion buffer of at least 50 feet placed around the structure. The structure shall remain unmolested for at least two weeks to allow the young to mature and leave the nest of their own accord. After the avoidance period, the nest dismantling process may begin again. Nest material shall then be moved to adjacent vegetated areas that will not be disturbed.

6.4 Wildlife Corridors and Nursery Sites

The Study Area does not serve as a wildlife corridor or a nursery site. Local wildlife may move through Adobe Creek.

6.5 Local Policies and Ordinances

Tree Removal

The Study Area contains trees that are considered protected or heritage trees per the City of Los Altos Municipal Code or the Los Altos Hills Municipal Code. If tree removal is needed, prior to removal of trees that meet the protected tree criteria, a permit must be obtained from the City of Los Altos or Los Altos Hills. An arborist report from an ISA certified arborist must be submitted with the permit application for the City of Los Altos. See the Arborist Survey, Tree Protection and Mitigation Plan (July 2023) for more information.

Guidelines and Standards for Land Use Near Streams

The City of Los Altos adopted Guidelines and Standards for Land Use Near Streams. This document includes guidelines for utility crossings. Section VIII.B describes design criteria for utility pipes that must go under streams including drilling depth below the channel. The Project may need to comply with these guidelines when working near streams to receive a development permit from the City.

Los Altos Hills General Plan

The Los Altos Hills General Plan contains policies on creeks and riparian corridors, trees and plants, wildlife species and habitat, and water resources that may be considered during the CEQA process.

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APPENDIX A – FIGURES

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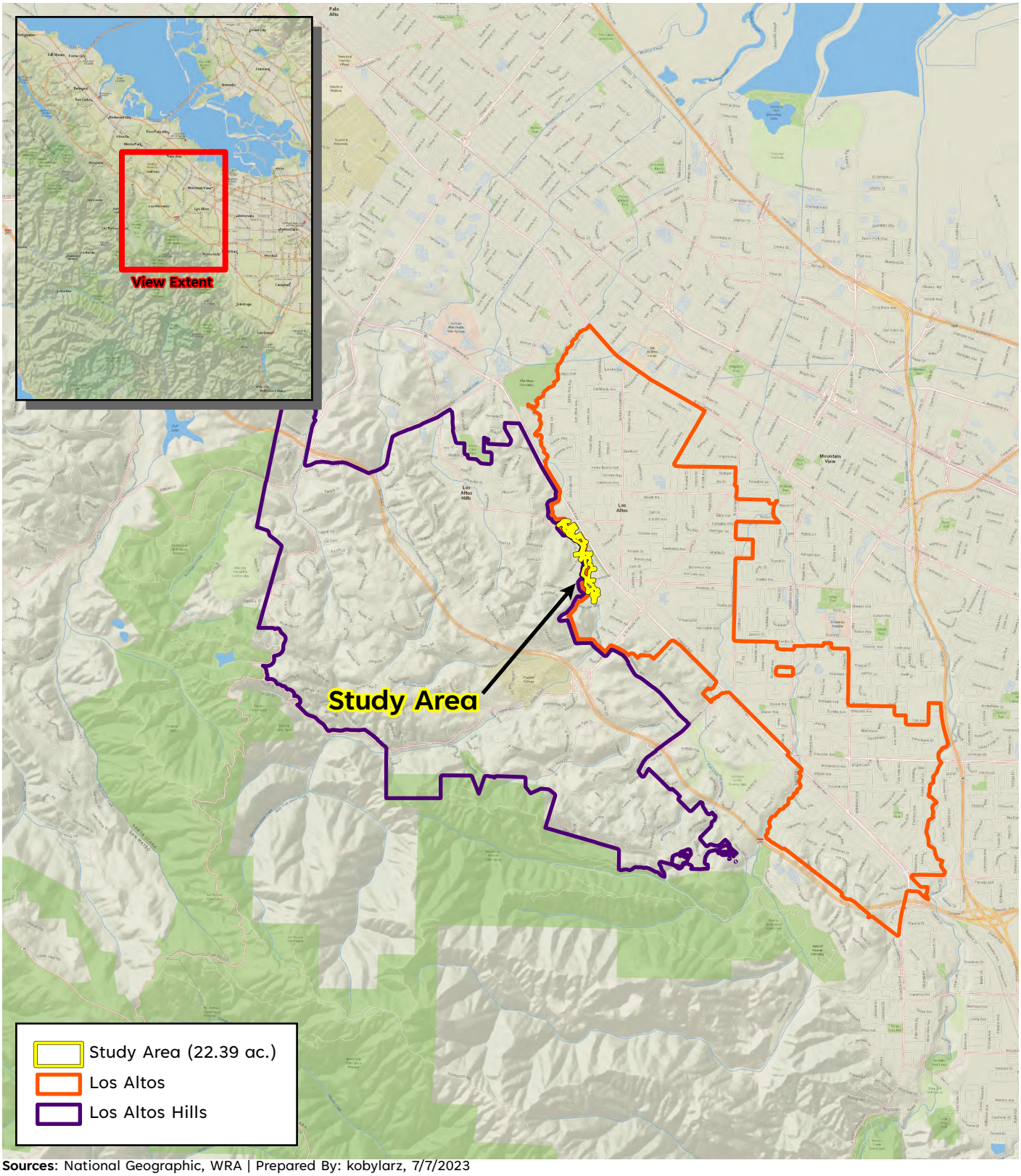


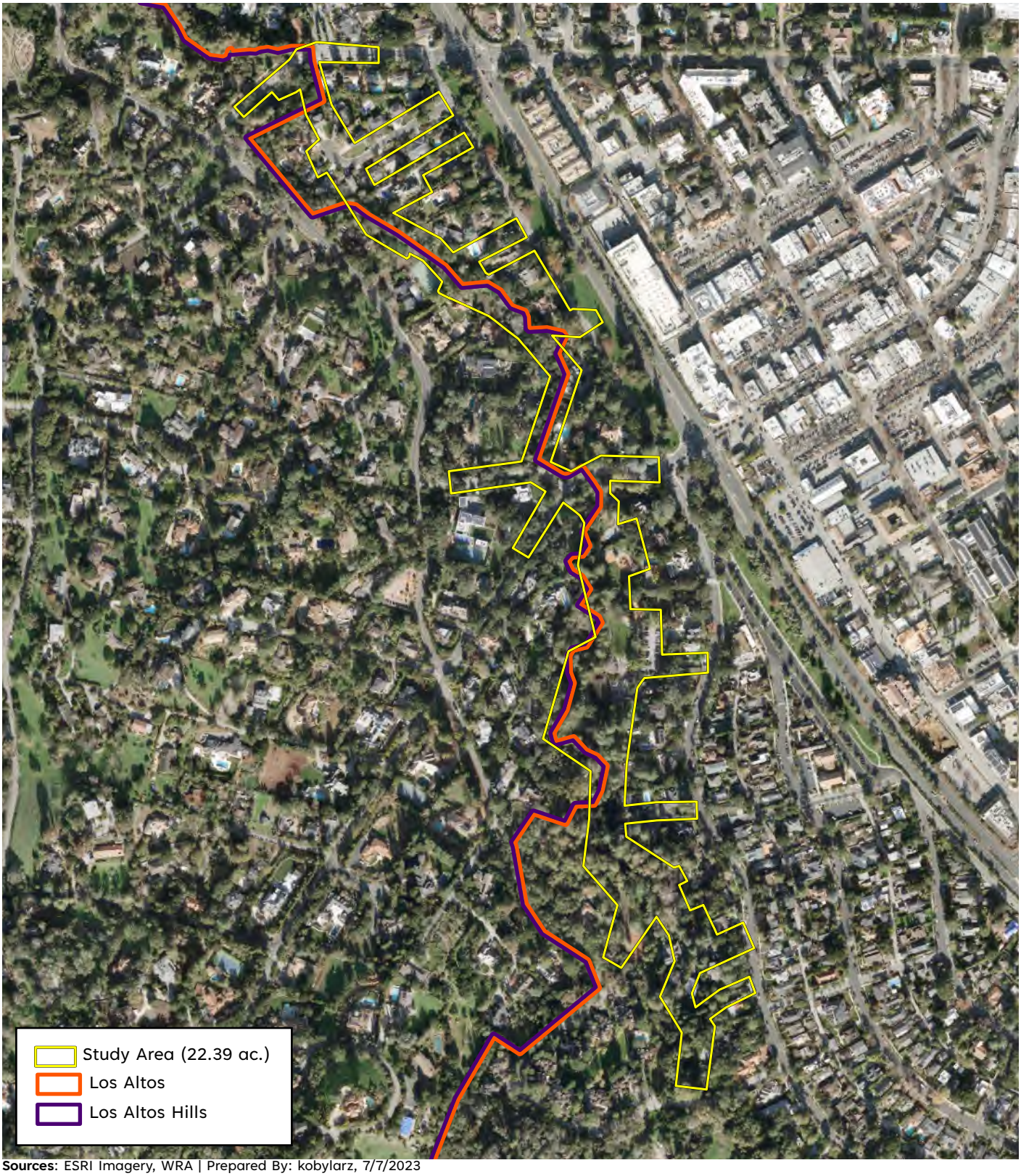
Figure 1. Study Area Regional Location Map

Adobe Creek Sewer Project
Los Altos, California

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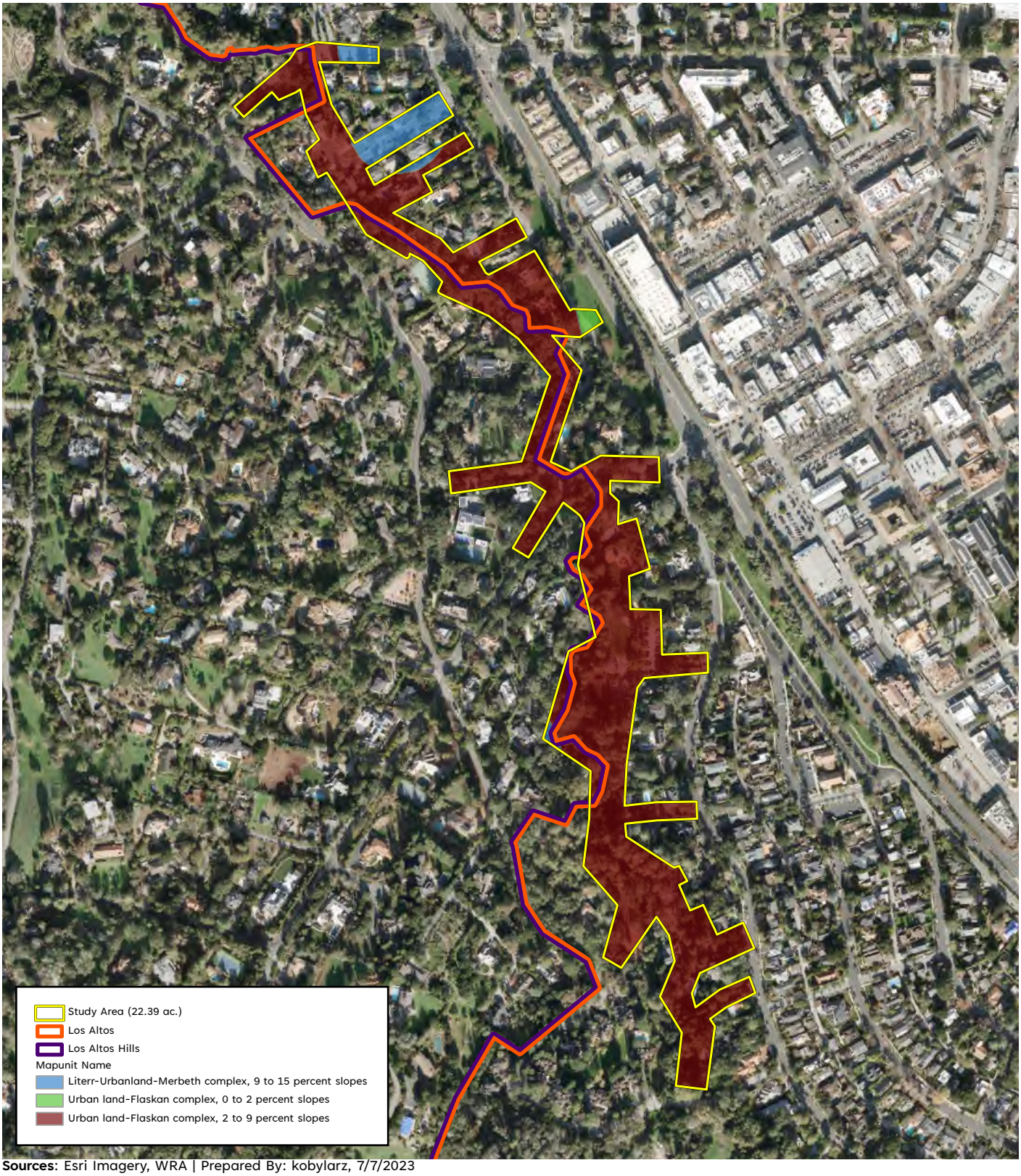
Figure 2. Study Area Map

Adobe Creek Sewer Project
Los Altos, California

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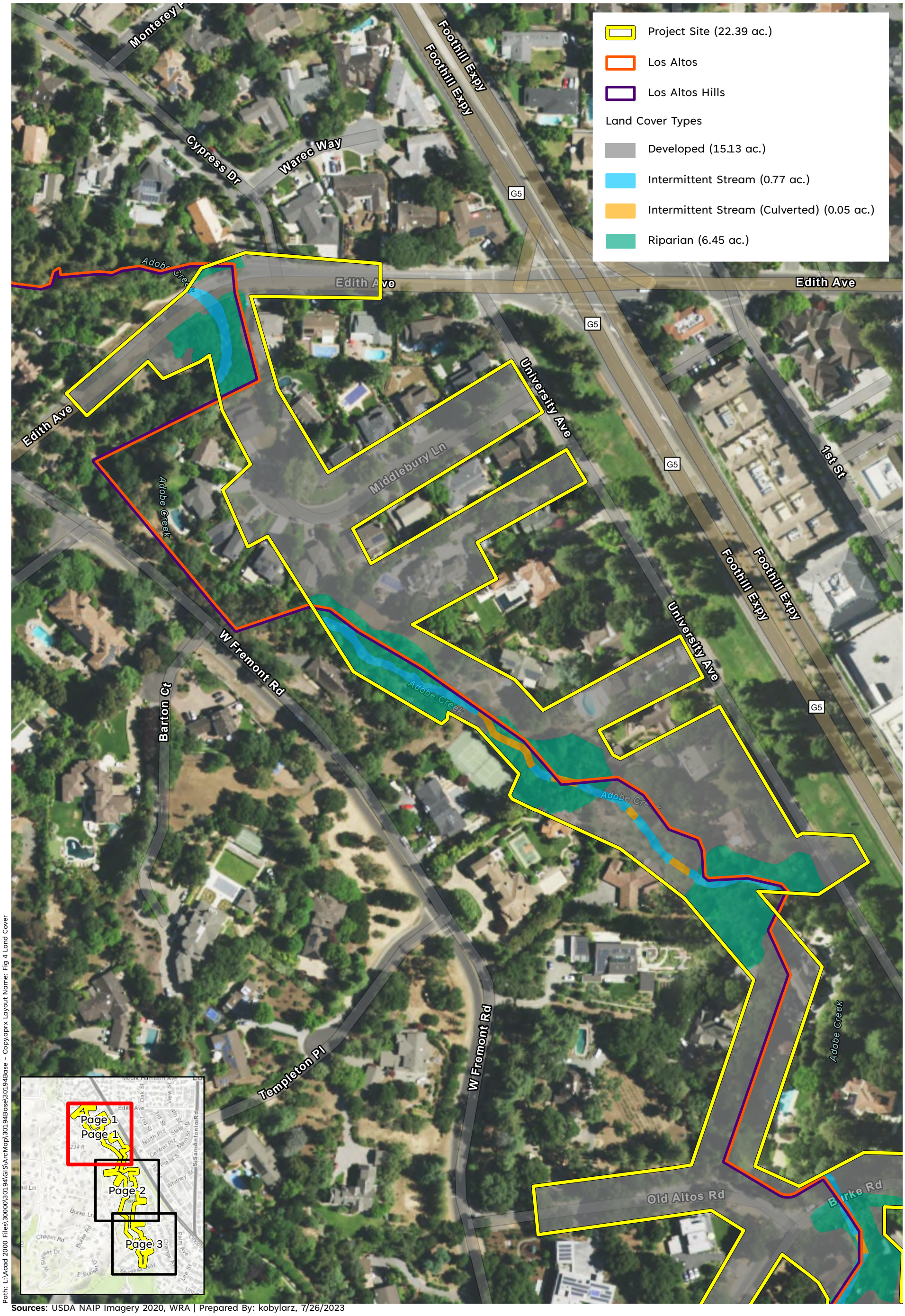
Figure 3. Soils Map

Adobe Creek Sewer Project
Los Altos, California

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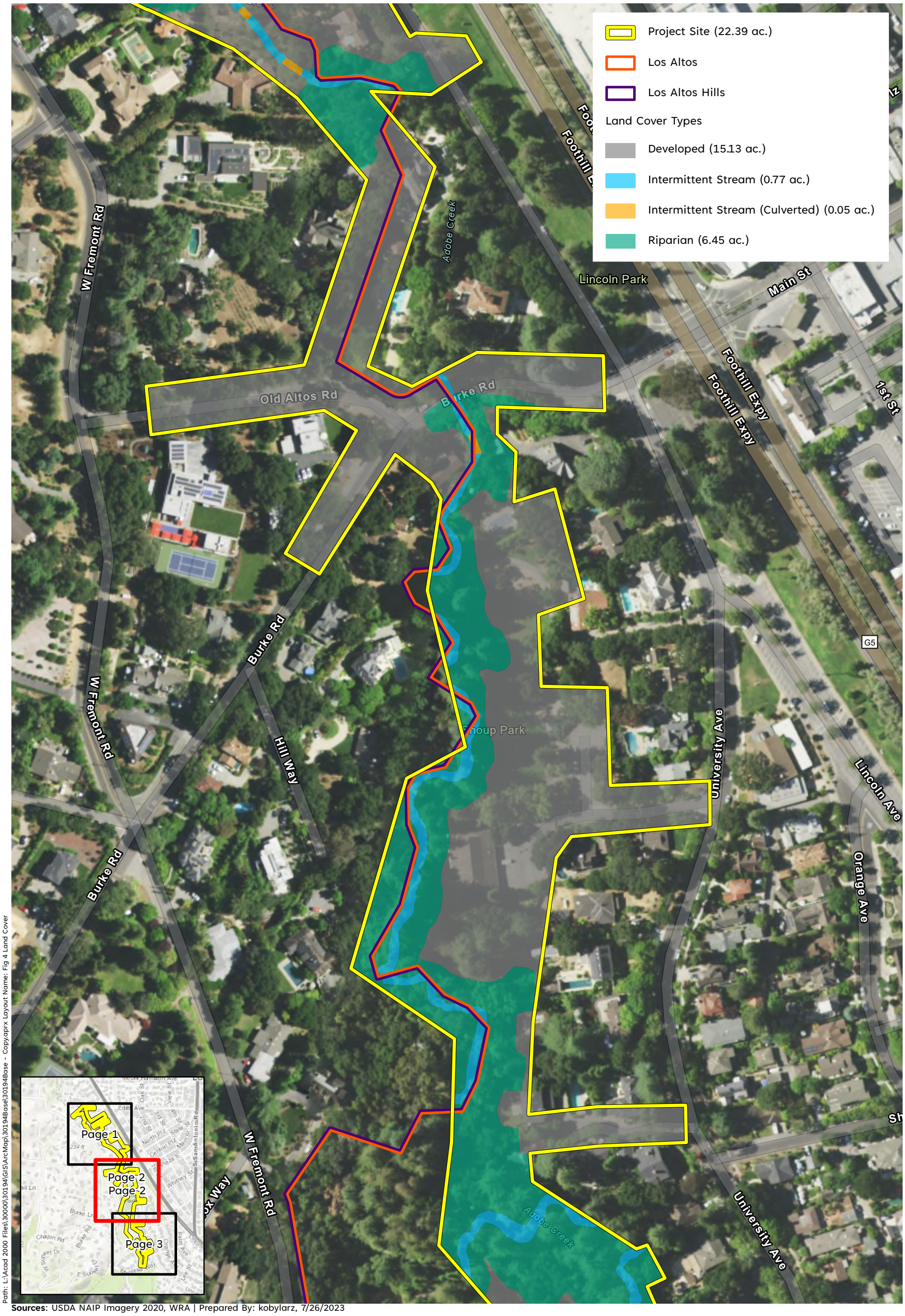
Figure 4. Land Cover Types within the Project Site
Page 1

Adobe Creek Sewer Main Replacement Project
Los Altos, California

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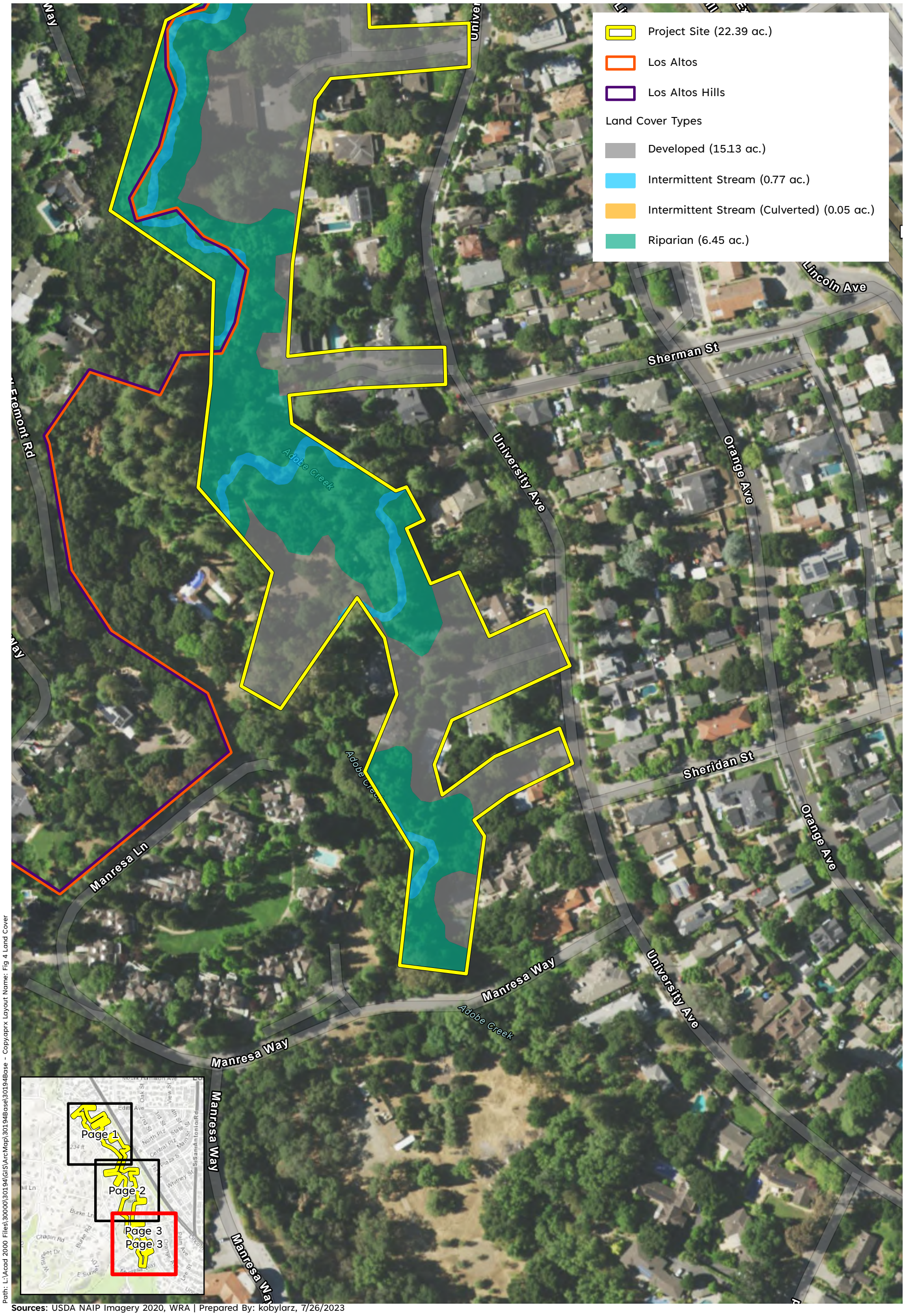
Figure 4. Land Cover Types within the Project Site
Page 2

Adobe Creek Sewer Main Replacement Project
Los Altos, California

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Figure 4. Land Cover Types within the Project Site
Page 3

Adobe Creek Sewer Main Replacement Project
Los Altos, California

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APPENDIX B – SPECIES OBSERVED IN AND AROUND THE STUDY AREA

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Attachment B1. List of Plant Species Observed within and around the Study Area on May 27, 2021.

Scientific Name	Common Name	Origin	CAL-IPC Status
Acacia dealbata	Silver wattle	non-native (invasive)	Moderate
Acer macrophyllum	Bigleaf maple	native	-
Aesculus californica	Buckeye	native	-
Alnus rhombifolia	White alder	native	-
Artemisia douglasiana	California mugwort	native	-
Arundo donax	Giant reed	non-native (invasive)	High
Bromus diandrus	Ripgut brome	non-native (invasive)	Moderate
Bromus hordeaceus	Soft chess	non-native (invasive)	Limited
Carduus pycnocephalus ssp. pycnocephalus	Italian thistle	non-native (invasive)	Moderate
Cornus sericea	American dogwood	native	-
Cupressus sempervirens	Italian cypress	non-native	-
Cyperus eragrostis	Tall cyperus	native	-
Eriobotrya japonica	Loquat	non-native	-
Eucalyptus sp.	-	-	-
Euphorbia peplus	Petty spurge	non-native	-
Fraxinus latifolia	Oregon ash	native	-
Galium aparine	Cleavers	native	-
Geranium dissectum	Wild geranium	non-native (invasive)	Limited
Hedera canariensis	Canary ivy	non-native (invasive)	High
Juglans hindsii	Northern California black walnut	native	-
Lonicera hispidula	Pink honeysuckle	native	-
Marah fabacea	California man-root	native	-
Marrubium vulgare	White horehound	non-native (invasive)	Limited
Melissa officinalis	Lemon balm	non-native	-
Nerium oleander	Oleander	non-native	-
Oxalis articulata ssp. rubra	Windowbox woodsorrel	non-native	-

Quercus agrifolia	Coast live oak	native	-
Quercus lobata	Valley oak	native	-
Rosa californica	California wild rose	native	-
Rubus armeniacus	Himalayan blackberry	non-native (invasive)	High
Salix lasiolepis	Arroyo willow	native	-
Sambucus nigra ssp. caerulea	Blue elderberry	native	-
Schinus molle	Peruvian pepper tree	non-native (invasive)	Limited
Scrophularia californica	California bee plant	native	-
Sequoia sempervirens	Coast redwood	native	-
Symphoricarpos albus var. laevigatus	Common snowberry	native	-
Torilis arvensis	Field hedge parsley	non-native (invasive)	Moderate
Toxicodendron diversilobum	Poison oak	native	-
Tradescantia fluminensis	Small leaf spiderwort	non-native	-
Umbellularia californica	California bay	native	-
Urtica dioica	Stinging nettle	native	-
Vinca major	Vinca	non-native (invasive)	Moderate

- All species identified using the *Jepson eFlora* [Jepson Flora Project (eds.) 2021]; nomenclature follows *Jepson eFlora* [Jepson Flora Project (eds.) 2021]

Attachment B2. List of Wildlife Species Observed within and around the Study Area on May 27, 2021.

Scientific Name	**Common Name**	**Status**
Baeolophus inornatus	oak titmouse	none
Calypte anna	Anna's hummingbird	none
Corvus brachyrhynchos	American crow	none
Haemorhous mexicanus	house finch	none
Junco hyemalis	dark-eyed junco	none
Pipilo maculatus	spotted towhee	none
Poecile rufescens	chestnut-backed chickadee	none
Thryomanes bewickii	Bewick's wren	none
Turdus migratorius	American robin	none

APPENDIX C – SPECIAL-STATUS SPECIES POTENTIAL TABLE

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Common Name	Scientific Name	Status	Habitat	Potential to Occur
Plants				
San Mateo thorn-mint	*Acanthomintha duttonii*	Federal Endangered California Endangered CRPR 1B.1	Chaparral, valley and foothill grassland. Elevation ranges from 165 to 985 feet (50 to 300 meters). Blooms Apr-Jun.	**No Potential.** Suitable habitat does not occur within the Study Area.
Franciscan onion	*Allium peninsulare var. franciscanum*	CRPR 1B.2	Cismontane woodland, valley and foothill grassland. Elevation ranges from 170 to 1000 feet (52 to 305 meters). Blooms (Apr)May-Jun.	**No Potential.** Suitable habitat does not occur within the Study Area.
bent-flowered fiddleneck	*Amsinckia lunaris*	CRPR 1B.2	Cismontane woodland, coastal bluff scrub, valley and foothill grassland. Elevation ranges from 10 to 1640 feet (3 to 500 meters). Blooms Mar-Jun.	**No Potential.** Suitable habitat does not occur within the Study Area.
California androsace	*Androsace elongata ssp. acuta*	CRPR 4.2	Chaparral, cismontane woodland, coastal scrub, meadows and seeps, pinyon and juniper woodland, valley and foothill grassland. Elevation ranges from 490 to 4280 feet (150 to 1305 meters). Blooms Mar-Jun.	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
slender silver moss	*Anomobryum julaceum*	CRPR 4.2	Broadleafed upland forest, lower montane coniferous forest, north coast coniferous forest. Elevation ranges from 330 to 3280 feet (100 to 1000 meters).	**No Potential.** Suitable habitat does not occur within the Study Area.

COMMON NAME	SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL TO OCCUR
coast rockcress	*Arabis blepharophylla*	CRPR 4.3	Broadleafed upland forest, coastal bluff scrub, coastal prairie, coastal scrub. Elevation ranges from 10 to 3610 feet (3 to 1100 meters). Blooms Feb-May.	**No Potential.** Suitable habitat does not occur within the Study Area.
Anderson's manzanita	*Arctostaphylos andersonii*	CRPR 1B.2	Broadleafed upland forest, chaparral, north coast coniferous forest. Elevation ranges from 195 to 2495 feet (60 to 760 meters). Blooms Nov-May.	**No Potential.** Suitable habitat does not occur within the Study Area.
Schreiber's manzanita	*Arctostaphylos glutinosa*	CRPR 1B.2	Chaparral, closed-cone coniferous forest. Elevation ranges from 560 to 2245 feet (170 to 685 meters). Blooms Mar-Apr (Nov).	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
Ohlone manzanita	*Arctostaphylos ohloneana*	CRPR 1B.1	Closed-cone coniferous forest, coastal scrub. Elevation ranges from 1475 to 1740 feet (450 to 530 meters). Blooms Feb-Mar.	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
Kings Mountain manzanita	*Arctostaphylos regismontana*	CRPR 1B.2	Broadleafed upland forest, chaparral, north coast coniferous forest. Elevation ranges from 1000 to 2395 feet (305 to 730 meters). Blooms Dec-Apr.	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
Bonny Doon manzanita	*Arctostaphylos silvicola*	CRPR 1B.2	Chaparral, closed-cone coniferous forest, lower montane coniferous forest. Elevation ranges from 395 to 1970 feet (120 to 600 meters). Blooms Jan-Mar.	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.

Common Name	Scientific Name	Status	Habitat	Potential to Occur
alkali milk-vetch	*Astragalus tener var. tener*	CRPR 1B.2	Playas, valley and foothill grassland, vernal pools. Elevation ranges from 5 to 195 feet (1 to 60 meters). Blooms Mar-Jun.	**No Potential.** Suitable habitat does not occur within the Study Area.
brittlescale	*Atriplex depressa*	CRPR 1B.2	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland, vernal pools. Elevation ranges from 5 to 1050 feet (1 to 320 meters). Blooms Apr-Oct.	**No Potential.** Suitable habitat does not occur within the Study Area.
lesser saltscale	*Atriplex minuscula*	CRPR 1B.1	Chenopod scrub, playas, valley and foothill grassland. Elevation ranges from 50 to 655 feet (15 to 200 meters). Blooms May-Oct.	**No Potential.** Suitable habitat does not occur within the Study Area.
Brewer's calandrinia	*Calandrinia breweri*	CRPR 4.2	Chaparral, coastal scrub. Elevation ranges from 35 to 4005 feet (10 to 1220 meters). Blooms (Jan)Mar-Jun.	**No Potential.** Suitable habitat does not occur within the Study Area.
Santa Cruz Mountains pussypaws	*Calyptridium parryi var. hesseae*	CRPR 1B.1	Chaparral, cismontane woodland. Elevation ranges from 1000 to 5020 feet (305 to 1530 meters). Blooms May-Aug.	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
Congdon's tarplant	*Centromadia parryi ssp. congdonii*	CRPR 1B.1	Alkaline soils sometimes described as heavy white clay in valley and foothill grassland. Elevation ranges from 0 to 755 feet (0 to 230 meters). Blooms May-Oct (Nov).	**No Potential.** Suitable habitat does not occur within the Study Area.

Common Name	Scientific Name	Status	Habitat	Potential to Occur
Point Reyes salty bird's-beak	*Chloropyron maritimum ssp. palustre*	CRPR 1B.2	Marshes and swamps. Elevation ranges from 0 to 35 feet (0 to 10 meters). Blooms Jun-Oct.	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
Ben Lomond spineflower	*Chorizanthe pungens var. hartwegiana*	Federal Endangered CRPR 1B.1	Lower montane coniferous forest. Elevation ranges from 295 to 2000 feet (90 to 610 meters). Blooms Apr-Jul.	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
robust spineflower	*Chorizanthe robusta var. robusta*	Federal Endangered CRPR 1B.1	Chaparral, cismontane woodland, coastal dunes, coastal scrub. Elevation ranges from 10 to 985 feet (3 to 300 meters). Blooms Apr-Sep.	**No Potential.** Suitable habitat does not occur within the Study Area.
Mt. Hamilton thistle	*Cirsium fontinale var. campylon*	CRPR 1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Elevation ranges from 330 to 2920 feet (100 to 890 meters). Blooms (Feb) Apr-Oct.	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
fountain thistle	*Cirsium fontinale var. fontinale*	Federal Endangered California Endangered CRPR 1B.1	Chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland. Elevation ranges from 150 to 575 feet (45 to 175 meters). Blooms (Apr) May-Oct.	**No Potential.** Suitable habitat does not occur within the Study Area.
lost thistle	*Cirsium praeteriens*	CRPR 1A	Presumed extinct; habitat unknown.	**Unlikely.** Suitable habitat is unknown and this species is presumed extinct and therefore, unlikely to occur within the Study Area.
Brewer's clarkia	*Clarkia breweri*	CRPR 4.2	Chaparral, cismontane woodland, coastal scrub. Elevation ranges from 705 to 3660 feet (215 to 1115 meters). Blooms Apr-Jun.	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.

Common Name	Scientific Name	Status	Habitat	Potential to Occur
Santa Clara red ribbons	*Clarkia concinna ssp. automixa*	CRPR 4.3	Chaparral, cismontane woodland. Elevation ranges from 295 to 4920 feet (90 to 1500 meters). Blooms (Apr) May-Jun (Jul).	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
Lewis' clarkia	*Clarkia lewisii*	CRPR 4.3	Broadleafed upland forest, chaparral, cismontane woodland, closed-cone coniferous forest, coastal scrub. Elevation ranges from 100 to 3920 feet (30 to 1195 meters). Blooms May-Jul.	**No Potential.** Suitable habitat does not occur within the Study Area.
round-headed Chinese-houses	*Collinsia corymbosa*	CRPR 1B.2	Coastal dunes. Elevation ranges from 0 to 65 feet (0 to 20 meters). Blooms Apr-Jun.	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
San Francisco collinsia	*Collinsia multicolor*	CRPR 1B.2	Closed-cone coniferous forest, coastal scrub. Elevation ranges from 100 to 900 feet (30 to 275 meters). Blooms (Feb) Mar-May.	**No Potential.** Suitable habitat does not occur within the Study Area.
clustered lady's-slipper	*Cypripedium fasciculatum*	CRPR 4.2	Lower montane coniferous forest, north coast coniferous forest. Elevation ranges from 330 to 7990 feet (100 to 2435 meters). Blooms Mar-Aug.	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
western leatherwood	*Dirca occidentalis*	CRPR 1B.2	Broadleafed upland forest, chaparral, cismontane woodland, closed-cone coniferous forest, north coast coniferous forest, riparian forest, riparian woodland. Elevation ranges from 80 to 1395 feet (25 to 425 meters). Blooms Jan-Mar (Apr).	**Moderate Potential.** Suitable riparian woodland occurs within the Study Area.

Common Name	Scientific Name	Status	Habitat	Potential to Occur
Santa Clara Valley dudleya	*Dudleya abramsii ssp. setchellii*	Federal Endangered CRPR 1B.1	Cismontane woodland, valley and foothill grassland on rocky serpentine outcrops and on rocks within grassland or woodland. Elevation ranges from 195 to 1755 feet (60 to 535 meters). Blooms Apr-Oct.	**No Potential.** Suitable habitat does not occur within the Study Area.
small spikerush	*Eleocharis parvula*	CRPR 4.3	Marshes and swamps. Elevation ranges from 5 to 9910 feet (1 to 3020 meters). Blooms (Apr) Jun-Aug (Sep).	**No Potential.** Suitable habitat does not occur within the Study Area.
San Mateo woolly sunflower	*Eriophyllum latilobum*	Federal Endangered California Endangered CRPR 1B.1	Cismontane woodland, coastal scrub, lower montane coniferous forest. Elevation ranges from 150 to 1085 feet (45 to 330 meters). Blooms May-Jun.	**No Potential.** Suitable habitat does not occur within the Study Area.
Hoover's button-celery	*Eryngium aristulatum var. hooveri*	CRPR 1B.1	Alkaline depressions, vernal pools, roadside ditches, and other wet places near the coast. Elevation ranges from 10 to 150 feet (3 to 45 meters). Blooms (Jun) Jul (Aug).	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
Jepson's coyote-thistle	*Eryngium jepsonii*	CRPR 1B.2	Valley and foothill grassland, vernal pools. Elevation ranges from 10 to 985 feet (3 to 300 meters). Blooms Apr-Aug.	**No Potential.** Suitable habitat does not occur within the Study Area.
San Francisco wallflower	*Erysimum franciscanum*	CRPR 4.2	Chaparral, coastal dunes, coastal scrub, valley and foothill grassland. Elevation ranges from 0 to 1805 feet (0 to 550 meters). Blooms Mar-Jun.	**No Potential.** Suitable habitat does not occur within the Study Area.

Common Name	Scientific Name	Status	Habitat	Potential to Occur
San Joaquin spearscale	*Extriplex joaquinana*	CRPR 1B.2	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland. Elevation ranges from 5 to 2740 feet (1 to 835 meters). Blooms Apr-Oct.	**No Potential.** Suitable habitat does not occur within the Study Area.
minute pocket moss	*Fissidens pauperculus*	CRPR 1B.2	North coast coniferous forest. Elevation ranges from 35 to 3360 feet (10 to 1024 meters).	**No Potential.** Suitable habitat does not occur within the Study Area.
fragrant fritillary	*Fritillaria liliacea*	CRPR 1B.2	Cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland. Elevation ranges from 10 to 1345 feet (3 to 410 meters). Blooms Feb-Apr.	**No Potential.** Suitable habitat does not occur within the Study Area.
phlox-leaf serpentine bedstraw	*Galium andrewsii ssp. gatense*	CRPR 4.2	Chaparral, cismontane woodland, lower montane coniferous forest. Elevation ranges from 490 to 4755 feet (150 to 1450 meters). Blooms Apr-Jul.	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
Toren's grimmia	*Grimmia torenii*	CRPR 1B.3	Chaparral, cismontane woodland, lower montane coniferous forest. Elevation ranges from 1065 to 3805 feet (325 to 1160 meters).	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
vaginulate grimmia	*Grimmia vaginulata*	CRPR 1B.1	Chaparral. Elevation ranges from 2245 to 2245 feet (685 to 685 meters).	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
short-leaved evax	*Hesperevax sparsiflora var. brevifolia*	CRPR 1B.2	Coastal bluff scrub, coastal dunes, coastal prairie. Elevation ranges from 0 to 705 feet (0 to 215 meters). Blooms Mar-Jun.	**No Potential.** Suitable habitat does not occur within the Study Area.

Common Name	Scientific Name	Status	Habitat	Potential to Occur
Santa Cruz cypress	*Hesperocyparis abramsiana var. abramsiana*	Federal Threatened California Endangered CRPR 1B.2	Chaparral, closed-cone coniferous forest, lower montane coniferous forest. Elevation ranges from 920 to 2625 feet (280 to 800 meters).	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
Butano Ridge cypress	*Hesperocyparis abramsiana var. butanoensis*	Federal Threatened California Endangered CRPR 1B.2	Chaparral, closed-cone coniferous forest, lower montane coniferous forest. Elevation ranges from 1310 to 1610 feet (400 to 490 meters). Blooms Oct.	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
Marin western flax	*Hesperolinon congestum*	Federal Threatened California Threatened CRPR 1B.1	Chaparral, valley and foothill grassland. Elevation ranges from 15 to 1215 feet (5 to 370 meters). Blooms Apr-Jul.	**No Potential.** Suitable habitat does not occur within the Study Area.
Loma Prieta hoita	*Hoita strobilina*	CRPR 1B.1	Usually serpentinite, mesic sites in chaparral, cismontane woodland, riparian woodland. Elevation ranges from 100 to 2820 feet (30 to 860 meters). Blooms May-Jul (Aug-Oct).	**Unlikely.** Suitable serpentine, mesic substrate does not occur in the Study Area.
harlequin lotus	*Hosackia gracilis*	CRPR 4.2	Broadleafed upland forest, cismontane woodland, closed-cone coniferous forest, coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, meadows and seeps, north coast coniferous forest, valley and foothill grassland. Elevation ranges from 0 to 2295 feet (0 to 700 meters). Blooms Mar-Jul.	**No Potential.** Suitable habitat does not occur within the Study Area.

Common Name	Scientific Name	Status	Habitat	Potential to Occur
coast iris	*Iris longipetala*	CRPR 4.2	Coastal prairie, lower montane coniferous forest, meadows and seeps. Elevation ranges from 0 to 1970 feet (0 to 600 meters). Blooms Mar-May (Jun).	**No Potential.** Suitable habitat does not occur within the Study Area.
Contra Costa goldfields	*Lasthenia conjugens*	Federal Endangered CRPR 1B.1	Vernal pools, swales, low depressions, in open grassy areas. Elevation ranges from 0 to 1540 feet (0 to 470 meters). Blooms Mar-Jun.	**No Potential.** Suitable habitat does not occur within the Study Area.
legenere	*Legenere limosa*	CRPR 1B.1	Vernal pools. Elevation ranges from 5 to 2885 feet (1 to 880 meters). Blooms Apr-Jun.	**No Potential.** Suitable habitat does not occur within the Study Area.
bristly leptosiphon	*Leptosiphon acicularis*	CRPR 4.2	Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland. Elevation ranges from 180 to 4920 feet (55 to 1500 meters). Blooms Apr-Jul.	**No Potential.** Suitable habitat does not occur within the Study Area.
serpentine leptosiphon	*Leptosiphon ambiguus*	CRPR 4.2	Cismontane woodland, coastal scrub, valley and foothill grassland. Elevation ranges from 395 to 3710 feet (120 to 1130 meters). Blooms Mar-Jun.	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
large-flowered leptosiphon	*Leptosiphon grandiflorus*	CRPR 4.2	Cismontane woodland, closed-cone coniferous forest, coastal bluff scrub, coastal dunes, coastal prairie, coastal scrub, valley and foothill grassland. Elevation ranges from 15 to 4005 feet (5 to 1220 meters). Blooms Apr-Aug.	**No Potential.** Suitable habitat does not occur within the Study Area.

Common Name	Scientific Name	Status	Habitat	Potential to Occur
broad-lobed leptosiphon	*Leptosiphon latisectus*	CRPR 4.3	Broadleafed upland forest, cismontane woodland. Elevation ranges from 560 to 4920 feet (170 to 1500 meters). Blooms Apr-Jun.	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
woolly-headed lessingia	*Lessingia hololeuca*	CRPR 3	Broadleafed upland forest, coastal scrub, lower montane coniferous forest, valley and foothill grassland. Elevation ranges from 50 to 1000 feet (15 to 305 meters). Blooms Jun-Oct.	**No Potential.** Suitable habitat does not occur within the Study Area.
smooth lessingia	*Lessingia micradenia var. glabrata*	CRPR 1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Elevation ranges from 395 to 1380 feet (120 to 420 meters). Blooms (Apr-Jun) Jul-Nov.	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
spring lessingia	*Lessingia tenuis*	CRPR 4.3	Chaparral, cismontane woodland, lower montane coniferous forest. Elevation ranges from 985 to 7055 feet (300 to 2150 meters). Blooms May-Jul.	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
arcuate bush-mallow	*Malacothamnus arcuatus*	CRPR 1B.2	Chaparral, cismontane woodland. Elevation ranges from 50 to 1165 feet (15 to 355 meters). Blooms Apr-Sep.	**No Potential.** Suitable habitat does not occur within the Study Area.
Hall's bush-mallow	*Malacothamnus hallii*	CRPR 1B.2	Chaparral, coastal scrub. Elevation ranges from 35 to 2495 feet (10 to 760 meters). Blooms (Apr) May-Sep (Oct).	**No Potential.** Suitable habitat does not occur within the Study Area.

Common Name	Scientific Name	Status	Habitat	Potential to Occur
woodland woollythreads	*Monolopia gracilens*	CRPR 1B.2	Broadleafed upland forest, chaparral, cismontane woodland, north coast coniferous forest, valley and foothill grassland. Elevation ranges from 330 to 3935 feet (100 to 1200 meters). Blooms (Feb)Mar-Jul.	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
prostrate vernal pool navarretia	*Navarretia prostrata*	CRPR 1B.2	Coastal scrub, meadows and seeps, valley and foothill grassland, vernal pools. Elevation ranges from 10 to 3970 feet (3 to 1210 meters). Blooms Apr-Jul.	**No Potential.** Suitable habitat does not occur within the Study Area.
Kellman's bristle moss	*Orthotrichum kellmanii*	CRPR 1B.2	Chaparral, cismontane woodland. Elevation ranges from 1125 to 2245 feet (343 to 685 meters). Blooms Jan-Feb.	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
Dudley's lousewort	*Pedicularis dudleyi*	California Rare CRPR 1B.2	Chaparral, cismontane woodland, north coast coniferous forest, valley and foothill grassland. Elevation ranges from 195 to 2955 feet (60 to 900 meters). Blooms Apr-Jun.	**No Potential.** Suitable habitat does not occur within the Study Area.
Santa Cruz Mountains beardtongue	*Penstemon rattanii var. kleei*	CRPR 1B.2	Chaparral, lower montane coniferous forest, north coast coniferous forest. Elevation ranges from 1310 to 3610 feet (400 to 1100 meters). Blooms May-Jun.	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
white-rayed pentachaeta	*Pentachaeta bellidiflora*	Federal Endangered California Endangered CRPR 1B.1	Cismontane woodland, valley and foothill grassland. Elevation ranges from 115 to 2035 feet (35 to 620 meters). Blooms Mar-May.	**No Potential.** Suitable habitat does not occur within the Study Area.

Common Name	Scientific Name	Status	Habitat	Potential to Occur
white-flowered rein orchid	*Piperia candida*	CRPR 1B.2	Broadleafed upland forest, lower montane coniferous forest, north coast coniferous forest. Elevation ranges from 100 to 4300 feet (30 to 1310 meters). Blooms (Mar)May-Sep.	**No Potential.** Suitable habitat does not occur within the Study Area.
Michael's rein orchid	*Piperia michaelii*	CRPR 4.2	Chaparral, cismontane woodland, closed-cone coniferous forest, coastal bluff scrub, coastal scrub, lower montane coniferous forest. Elevation ranges from 10 to 3000 feet (3 to 915 meters). Blooms Apr-Aug.	**No Potential.** Suitable habitat does not occur within the Study Area.
Choris' popcornflower	*Plagiobothrys chorisianus var. chorisianus*	CRPR 1B.2	Chaparral, coastal prairie, coastal scrub. Elevation ranges from 10 to 525 feet (3 to 160 meters). Blooms Mar-Jun.	**No Potential.** Suitable habitat does not occur within the Study Area.
Hickman's popcornflower	*Plagiobothrys chorisianus var. hickmanii*	CRPR 4.2	Chaparral, closed-cone coniferous forest, coastal scrub, marshes and swamps, vernal pools. Elevation ranges from 50 to 1280 feet (15 to 390 meters). Blooms Apr-Jun.	**No Potential.** Suitable habitat does not occur within the Study Area.
hairless popcornflower	*Plagiobothrys glaber*	CRPR 1A	Marshes and swamps, meadows and seeps. Elevation ranges from 50 to 590 feet (15 to 180 meters). Blooms Mar-May.	**No Potential.** Suitable habitat does not occur within the Study Area.

Common Name	Scientific Name	Status	Habitat	Potential to Occur
California alkali grass	*Puccinellia simplex*	CRPR 1B.2	Chenopod scrub, meadows and seeps, valley and foothill grassland, vernal pools. Elevation ranges from 5 to 3050 feet (2 to 930 meters). Blooms Mar-May.	**No Potential.** Suitable habitat does not occur within the Study Area.
Lobb's aquatic buttercup	*Ranunculus lobbii*	CRPR 4.2	Cismontane woodland, north coast coniferous forest, valley and foothill grassland, vernal pools. Elevation ranges from 50 to 1540 feet (15 to 470 meters). Blooms Feb-May.	**No Potential.** Suitable habitat does not occur within the Study Area.
rock sanicle	*Sanicula saxatilis*	California Rare CRPR 1B.2	Bedrock outcrops and talus slopes in chaparral or oak woodland habitat. Elevation ranges from 2035 to 3855 feet (620 to 1175 meters). Blooms Apr-May.	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
chaparral ragwort	*Senecio aphanactis*	CRPR 2B.2	Chaparral, cismontane woodland, coastal scrub. Elevation ranges from 50 to 2625 feet (15 to 800 meters). Blooms Jan-Apr (May).	**No Potential.** Suitable habitat does not occur within the Study Area.
Santa Cruz microseris	*Stebbinsoseris decipiens*	CRPR 1B.2	Broadleafed upland forest, chaparral, closed-cone coniferous forest, coastal prairie, coastal scrub, valley and foothill grassland. Elevation ranges from 35 to 1640 feet (10 to 500 meters). Blooms Apr-May.	**No Potential.** Suitable habitat does not occur within the Study Area.

Common Name	Scientific Name	Status	Habitat	Potential to Occur
most beautiful jewelflower	*Streptanthus albidus ssp. peramoenus*	CRPR 1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Elevation ranges from 310 to 3280 feet (95 to 1000 meters). Blooms (Mar)Apr-Sep (Oct).	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
slender-leaved pondweed	*Stuckenia filiformis ssp. alpina*	CRPR 2B.2	Marshes and swamps. Elevation ranges from 985 to 7055 feet (300 to 2150 meters). Blooms May-Jul.	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
California seablite	*Suaeda californica*	Federal Endangered CRPR 1B.1	Marshes and swamps. Elevation ranges from 0 to 50 feet (0 to 15 meters). Blooms Jul-Oct.	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
two-fork clover	*Trifolium amoenum*	Federal Endangered CRPR 1B.1	Coastal bluff scrub, valley and foothill grassland. Elevation ranges from 15 to 1360 feet (5 to 415 meters). Blooms Apr-Jun.	**No Potential.** Suitable habitat does not occur within the Study Area.
Santa Cruz clover	*Trifolium buckwestiorum*	CRPR 1B.1	Broadleafed upland forest, cismontane woodland, coastal prairie. Elevation ranges from 345 to 2000 feet (105 to 610 meters). Blooms Apr-Oct.	**No Potential.** Suitable habitat and elevation do not occur within the Study Area.
saline clover	*Trifolium hydrophilum*	CRPR 1B.2	Marshes and swamps, valley and foothill grassland, vernal pools. Elevation ranges from 0 to 985 feet (0 to 300 meters). Blooms Apr-Jun.	**No Potential.** Suitable habitat does not occur within the Study Area.

Common Name	Scientific Name	Status	Habitat	Potential to Occur
Pacific Grove clover	*Trifolium polyodon*	California Rare CRPR 1B.1	Closed-cone coniferous forest, coastal prairie, meadows and seeps, valley and foothill grassland. Elevation ranges from 15 to 1395 feet (5 to 425 meters). Blooms Apr-Jun (Jul).	**No Potential.** Suitable habitat does not occur within the Study Area.
Methuselah's beard lichen	*Usnea longissima*	CRPR 4.2	Broadleafed upland forest, north coast coniferous forest. Elevation ranges from 165 to 4790 feet (50 to 1460 meters).	**No Potential.** Suitable habitat does not occur within the Study Area.
Amphibians and Reptiles				
California tiger salamander	*Ambystoma californiense*	Federal Threatened California Threatened	Populations in Santa Barbara and Sonoma counties currently listed as endangered; threatened in remainder of range. Inhabits grassland, oak woodland, ruderal and seasonal pool habitats. Adults are fossorial and utilize mammal burrows and other subterranean refugia. Breeding occurs primarily in vernal pools and other seasonal water features.	**Unlikely.** The nearest documented occurrence is from 1900 and is considered extirpated (CDFW 2021). The Study Area is within a densely developed area with limited upland refugia.

Common Name	Scientific Name	Status	Habitat	Potential to Occur
Santa Cruz black salamander	*Aneides niger*	CDFW Species of Special Concern	Climbing salamanders of the genus Aneides frequent damp woodlands and are usually found hiding under various debris (i.e. bark, woodrat nests, logs). The Santa Cruz black salamander exists south of the San Francisco Bay and was only recently recognized as a separate and protected species. Santa Cruz black salamander is highly sedentary, preferring to stay hidden under riparian debris. Prey items include millipedes, spiders, and other insects (Stebbins and McGinnis 2012).	**Unlikely.** The Study Area is within a densely developed residential area and does not contain typical forest or woodland habitat.
Northern California legless lizard	*Anniella pulchra*	CDFW Species of Special Concern	Fossorial species, inhabiting sandy or loose loamy soils under relatively sparse vegetation. Suitable habitat includes dunes, stream terraces, and scrub and chaparral. Adequate soil moisture is essential.	**No Potential.** The Study Area does not contain sandy or loose soils to support this species.

COMMON NAME	SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL TO OCCUR
California giant salamander	*Dicamptodon ensatus*	CDFW Species of Special Concern	Occurs in the north-central Coast Ranges. Moist coniferous and mixed forests are typical habitat; also uses woodland and chaparral. Adults are terrestrial and fossorial, breeding in cold, permanent or semi-permanent streams. Larvae usually remain aquatic for over a year.	**Unlikely.** The Study Area does not contain forest habitat typical for this species. .
western pond turtle	*Emys marmorata*	CDFW Species of Special Concern	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. Require basking sites such as partially submerged logs, vegetation mats, or open mud banks, and suitable upland habitat (sandy banks or grassy open fields) for egg-laying.	**Moderate Potential.** Aquatic habitat within the Study Area is intermittent, with a cobble/ rocky bottom and armored banks throughout much of the Study Area. The creek does not contain basking sites or suitable open habitat to support egg laying. However, during wet periods this species may occur in Adobe Creek.
foothill yellow-legged frog	*Rana boylii*	California Endangered CDFW Species of Special Concern	Found in or adjacent to rocky streams in a variety of habitats. Prefers partly-shaded, shallow streams and riffles with a rocky substrate; requires at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis. Feeds on both aquatic and terrestrial invertebrates.	**No Potential.** This species is considered extirpated from the vicinity.

Common Name	Scientific Name	Status	Habitat	Potential to Occur
California red-legged frog	*Rana draytonii*	Federal Threatened CDFW Species of Special Concern	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11 to 20 weeks of permanent water for larval development. Associated with quiet perennial to intermittent ponds, stream pools and wetlands. Prefers shorelines with extensive vegetation. Disperses through upland habitats after rains.	**Unlikely.** The Study Area does not contain pools or ponds with emergent vegetation to support breeding by this species. There are no documented breeding occurrences in Adobe Creek (CDFW 2021). The Study Area is within an urban setting, with dense development separating the Study Area from the nearest occurrences approximately 2.5 miles north. Given the lack of suitable breeding habitat or nearby occurrences, and the extensive surrounding development, this species is unlikely to occur in the Study Area.
red-bellied newt	*Taricha rivularis*	CDFW Species of Special Concern	Inhabits coastal forests from southern Sonoma County northward, with an isolated population in Santa Clara County. Redwood forest provides typical habitat, though other forest types (e.g., hardwood) are also occupied. Adults are terrestrial and fossorial. Breeding occurs in streams, usually with relatively strong flow.	**Unlikely.** The Study Area is within a developed area. While scattered redwoods are present within the urban parks, this Study Area does not contain forested habitat typical for this species. The nearest documented occurrences are over 5 miles from the Study Area (CDFW 2021).

Common Name	Scientific Name	Status	Habitat	Potential to Occur
San Francisco garter snake	*Thamnophis sirtalis tetrataenia*	Federal Endangered California Endangered CDFW Fully Protected	Vicinity of freshwater marshes, ponds and slow moving streams in San Mateo County and extreme northern Santa Cruz County. Prefers dense cover and water depths of at least one foot. Upland areas near water are also very important.	**Unlikely.** The Study Area does not contain densely vegetated slow moving stream habitat to support this species. The Study Area is within a developed area with landscaping and development abutting the creek through the majority of the Study Area.
Birds				
tricolored blackbird	*Agelaius tricolor*	California Threatened CDFW Species of Special Concern	Nearly endemic to California, where it is most numerous in the Central Valley and vicinity. Highly colonial, nesting in dense aggregations over or near freshwater in emergent growth or riparian thickets. Also uses flooded agricultural fields. Abundant insect prey near breeding areas essential.	**No Potential.** The Study Area does not contain emergent vegetation or dense riparian habitat to support a nesting colony.
golden eagle	*Aquila chrysaetos*	CDFW Fully Protected	Occurs year-round in rolling foothills, mountain areas, sage-juniper flats, and deserts. Cliff-walled canyons provide nesting habitat in most parts of range; also nests in large trees, usually within otherwise open areas.	**No Potential.** The Study Area is within an urban setting with no suitable nesting or foraging habitat.

COMMON NAME	SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL TO OCCUR
long-eared owl	*Asio otus*	CDFW Species of Special Concern	Occurs year-round in California. Nests in trees in a variety of woodland habitats, including oak and riparian, as well as tree groves. Requires adjacent open land with rodents for foraging, and the presence of old nests of larger birds (hawks, crows, magpies) for breeding.	**No Potential.** The Study Area is within an urban setting and does not contain open land to support foraging by this species.
burrowing owl	*Athene cunicularia*	CDFW Species of Special Concern	Year-round resident and winter visitor. Occurs in open, dry grasslands and scrub habitats with low-growing vegetation, perches and abundant mammal burrows. Preys upon insects and small vertebrates. Nests and roosts in old mammal burrows, most commonly those of ground squirrels.	**No Potential.** The Study Area is within an urban setting and does not contain open land to support foraging or nesting by this species.
marbled murrelet	*Brachyramphus marmoratus*	Federal Threatened California Endangered	Predominantly coastal marine. Nests in old-growth coniferous forests up to 30 miles inland along the Pacific coast, from Eureka to Oregon border, and in Santa Cruz/San Mateo Counties. Nests are highly cryptic, and typically located on platform-like branches of mature redwoods and Douglas firs. Forages on marine invertebrates and small fishes.	**No Potential.** The Study Area does not contain old growth forest to support nesting by this species. .

Common Name	Scientific Name	Status	Habitat	Potential to Occur
Swainson's hawk	*Buteo swainsoni*	California Threatened	Summer resident in California's Central Valley and limited portions of the southern California interior. Nests in tree groves and isolated trees in riparian and agricultural areas, including near buildings. Forages in grasslands and scrub habitats as well as agricultural fields, especially alfalfa. Preys on arthropods year-round as well as smaller vertebrates during the breeding season.	**No Potential.** The Study Area is outside of this species' typical breeding range.
northern harrier	*Circus hudsonius*	CDFW Species of Special Concern	Year-round resident and winter visitor. Found in open habitats including grasslands, prairies, marshes and agricultural areas. Nests on the ground in dense vegetation, typically near water or otherwise moist areas. Preys on small vertebrates.	**No Potential.** The Study Area does not contain open habitat to support nesting or foraging by this species.
western snowy plover	*Charadrius nivosus nivosus*	Federal Threatened CDFW Species of Special Concern	Federal listing applies only to the Pacific coastal population. Year-round resident and winter visitor. Occurs on sandy beaches, salt pond levees, and the shores of large alkali lakes. Nests on the ground, requiring sandy, gravelly or friable soils.	**No Potential.** The Study Area does not contain open beach, gravel, or similar habitat to support this species.

Common Name	Scientific Name	Status	Habitat	Potential to Occur
western yellow-billed cuckoo	*Coccyzus americanus occidentalis*	Federal Threatened California Endangered	Summer resident, breeding in dense riparian forests and jungles, typically with early successional vegetation present. Utilizes densely-foliaged deciduous trees and shrubs. Eats mostly caterpillars. Current breeding distribution within California very restricted.	**No Potential.** The Study Area does not contain suitable dense riparian forest to support this species. This species is not known to breed in the vicinity of the Study Area.
yellow rail	*Coturnicops noveboracensis*	CDFW Species of Special Concern	Summer resident in eastern Sierra Nevada in Mono County, breeding in shallow freshwater marshes and wet meadows with dense vegetation. Also a rare winter visitor along the coast and other portions of the state. Extremely cryptic.	**No Potential.** The Study Area does not contain freshwater marsh or wet meadow to support this species. The Study Area is outside of this species breeding range.
white-tailed kite	*Elanus leucurus*	CDFW Fully Protected	Year-round resident in coastal and valley lowlands with scattered trees and large shrubs, including grasslands, marshes and agricultural areas. Nests in trees, of which the type and setting are highly variable. Preys on small mammals and other vertebrates.	**Unlikely.** The Study Area is within an urban setting and does not contain open land to support foraging by this species.

Common Name	Scientific Name	Status	Habitat	Potential to Occur
American peregrine falcon	*Falco peregrinus anatum*	Federal Delisted California Delisted CDFW Fully Protected	Year-round resident and winter visitor. Occurs in a wide variety of habitats, though often associated with coasts, bays, marshes and other bodies of water. Nests on protected cliffs and also on man-made structures including buildings and bridges. Preys on birds, especially waterbirds. Forages widely.	**No Potential.** The Study Area does not contain open water habitat to support foraging, or tall structures such as cliffs or buildings to support nesting.
saltmarsh common yellowthroat	*Geothlypis trichas sinuosa*	CDFW Species of Special Concern	Resident of the San Francisco Bay region, in fresh and salt water marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	**No Potential.** The Study Area does not contain marsh habitat or thick emergent vegetation to support this species.
bald eagle	*Haliaeetus leucocephalus*	Federal Delisted California Endangered CDFW Fully Protected	Occurs year-round in California, but primarily a winter visitor; breeding population is growing. Nests in large trees in the vicinity of larger lakes, reservoirs and rivers. Wintering habitat somewhat more variable but usually features large concentrations of waterfowl or fish.	**No Potential.** The Study Area does not contain open water to support foraging by this species.

Common Name	Scientific Name	Status	Habitat	Potential to Occur
California black rail	*Laterallus jamaicensis coturniculus*	California Threatened CDFW Fully Protected	Year-round resident in marshes (saline to freshwater) with dense vegetation within four inches of the ground. Prefers larger, undisturbed marshes that have an extensive upper zone and are close to a major water source. Extremely secretive and cryptic.	**No Potential.** The Study Area does not contain marsh habitat to support this species.
Alameda song sparrow	*Melospiza melodia pusillula*	CDFW Species of Special Concern	Year-round resident of salt marshes bordering the south arm of San Francisco Bay. Inhabits primarily pickleweed marshes; nests placed in marsh vegetation, typically shrubs such as gumplant.	**No Potential.** The Study Area does not contain salt marsh habitat to support this species.
purple martin	*Progne subis*	CDFW Species of Special Concern	Summer resident. Inhabits woodlands and low elevation coniferous forests. Nests in old woodpecker cavities and man-made structures. Nest is often located in tall, isolated tree or snag.	**No Potential.** The Study Area is within an urban setting and does not contain suitable woodland or coniferous forest habitat. .

Common Name	Scientific Name	Status	Habitat	Potential to Occur
California Ridgway's rail	*Rallus obsoletus obsoletus*	Federal Endangered California Endangered CDFW Fully Protected	Year-round resident in tidal marshes of the San Francisco Bay estuary. Requires tidal sloughs and intertidal mud flats for foraging, and dense marsh vegetation for nesting and cover. Typical habitat features abundant growth of cordgrass and pickleweed. Feeds primarily on molluscs and crustaceans.	**No Potential.** The Study Area does not contain tidal marsh habitat to support this species.
black skimmer	*Rynchops niger*	CDFW Species of Special Concern	Found primarily in southern California; South San Francisco Bay has a small resident population. Nests colonially on gravel bars, low islets, and sandy beaches	**No Potential.** The Study Area does not contain open gravel bars or similar habitat to support this species.
California least tern	*Sternula antillarum browni*	Federal Endangered California Endangered CDFW Fully Protected	Summer resident along the coast from San Francisco Bay south to northern Baja California; inland breeding also very rarely occurs. Nests colonially on barren or sparsely vegetated areas with sandy or gravelly substrates near water, including beaches, islands, and gravel bars. In San Francisco Bay, has also nested on salt pond margins.	**No Potential.** The Study Area does not contain gravel bars, beaches, or similar open habitat to support nesting by this species.

Common Name	Scientific Name	Status	Habitat	Potential to Occur
Invertebrates				
Crotch bumble bee	*Bombus crotchii*	California Endangered Candidate	Range largely restricted to California, favoring grassland and scrub habitats. Typical of bumble bees, nests are usually constructed underground.	**No Potential.** The Study Area does not contain scrub or grassland habitat.
western bumble bee	*Bombus occidentalis*	California Endangered Candidate	Formerly common throughout much of western North America; populations from southern British Columbia to central California have nearly disappeared (Xerces 2015). Occurs in a wide variety of habitat types. Nests are constructed annually in pre-existing cavities, usually on the ground (e.g. mammal burrows). Many plant species are visited and pollinated.	**Unlikely.** The Study Area is outside of this species known current distribution. There are no recent documented occurrences of this species in the vicinity of the Study Area (CDFW 2021).
San Bruno elfin butterfly	*Callophrys mossii bayensis*	Federal Endangered	Limited to the vicinity of San Bruno Mountain, San Mateo County. Colonies are located on in rocky outcrops and cliffs in coastal scrub habitat on steep, north-facing slopes within the fog belt. Species range is tied to the distribution of the larval host plant, Sedum spathulifolium.	**No Potential.** The Study Area does not contain rocky outcrop or coastal scrub habitat.

Common Name	Scientific Name	Status	Habitat	Potential to Occur
Bay checkerspot butterfly	*Euphydryas editha bayensis*	Federal Threatened	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. Plantago erecta is the primary host plant; Orthocarpus densiflorus and O. purpurscens are the secondary host plants.	**No Potential.** The Study Area does not contain serpentine soil or grasslands to support this species or its host plant. This species is not known to occur in the vicinity of the Study Area.
vernal pool tadpole shrimp	*Lepidurus packardi*	Federal Endangered	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	**No Potential.** The Study Area does not contain grass bottomed or mud bottomed swales or vernal pools to support this species. There are no documented occurrences within 10 miles (CDFW 2021).
Zayante band-winged grasshopper	*Trimerotropis infantilis*	Federal Endangered	Endemic to isolated sandstone deposits in the Santa Cruz Mountains (the Zayante Sand Hills ecosystem). Restricted to sand parkland habitat found on ridges and hills within the Zayante Sand Hills ecosystem.	**No Potential.** The Study Area does not contain sandstone habitat and is outside of these species known range.
Fish				
delta smelt	*Hypomesus transpacificus*	Federal Threatened California Endangered	Lives in the Sacramento-San Joaquin estuary in areas where salt and freshwater systems meet. Occurs seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay. Seldom found at salinities > 10 ppt; most often at salinities < 2 ppt.	**No Potential.** The Study Area does not contain estuarine habitat to support this species.

Common Name	Scientific Name	Status	Habitat	Potential to Occur
tidewater goby	*Eucyclogobius newberryi*	Federal Endangered CDFW Species of Special Concern	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches; requires fairly still but not stagnant water and high oxygen levels.	**No Potential.** The Study Area does not contain brackish habitat to support this species.
coho salmon - central California coast ESU	*Oncorhynchus kisutch pop. 4*	Federal Endangered California Endangered	Federal listing includes populations between Punta Gorda and San Lorenzo River. State listing includes populations south of San Francisco Bay only. Occurs inland and in coastal marine waters. Requires beds of loose, silt-free, coarse gravel for spawning. Also needs cover, cool water and sufficient dissolved oxygen.	**Unlikely.** Tidal gates at the mouth of Adobe Creek, culverted sections of the creek, and several box culverts downstream of the Study Area likely preclude salmonids from the Study Area (Leidy et al 2008). Salmonids have not been observed in Adobe Creek since the 1800's.
steelhead - central California coast DPS	*Oncorhynchus mykiss irideus pop. 8*	Federal Threatened	Occurs from the Russian River south to Soquel Creek and Pajaro River. Also in San Francisco and San Pablo Bay Basins. Adults migrate upstream to spawn in cool, clear, well-oxygenated streams. Juveniles remain in fresh water for 1 or more years before migrating downstream to the ocean.	**Unlikely.** Tidal gates at the mouth of Adobe Creek, culverted sections of the creek, and several box culverts downstream of the Study Area likely preclude salmonids from the Study Area (Leidy et al 2008). Salmonids have not been observed in Adobe Creek since the 1800's.

Common Name	Scientific Name	Status	Habitat	Potential to Occur
longfin smelt	*Spirinchus thaleichthys*	Federal Candidate California Threatened	Euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15 to 30 ppt, but can be found in completely freshwater to almost pure seawater.	**No Potential.** The Study Area does not contain estuarine waters.
Mammals				
pallid bat	*Antrozous pallidus*	CDFW Species of Special Concern WBWG High Priority	Found in a variety of habitats ranging from grasslands to mixed forests, favoring open and dry, rocky areas. Roost sites include crevices in rock outcrops and cliffs, caves, mines, and also hollow trees and various manmade structures such as bridges, barns, and buildings (including occupied buildings). Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Moderate Potential.** The Study Area contains several large trees and buildings that may support roosting by this species.

COMMON NAME	SCIENTIFIC NAME	STATUS	HABITAT	POTENTIAL TO OCCUR
Townsend's big-eared bat	*Corynorhinus townsendii*	CDFW Species of Special Concern WBWG High Priority	Associated with a wide variety of habitats from deserts to higher-elevation mixed and coniferous forests. Females form maternity colonies in buildings, caves and mines, and males roost singly or in small groups. Foraging typically occurs at edge habitats near wooded areas, e.g. along streams.	**Unlikely.** The Study Area does not contain caves, mines, or similar habitat to support roosting by this species.
hoary bat	*Lasiurus cinereus*	WBWG Medium Priority	Prefers open forested habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths.	**Unlikely.** The Study Area does not contain open habitat to support foraging by this species.
San Francisco dusky-footed woodrat	*Neotoma fuscipes annectens*	CDFW Species of Special Concern	Forest habitats of moderate canopy and moderate to dense understory. Also in chaparral habitats. Constructs nests of shredded grass, leaves, and other material. May be limited by availability of nest-building materials.	**High Potential.** Portions of the Study Area contains moderate understory that may support this species. Two woodrat structures were observed in the southern portion of the Study Area.

Common Name	Scientific Name	Status	Habitat	Potential to Occur
salt-marsh harvest mouse	*Reithrodontomys raviventris*	Federal Endangered California Endangered CDFW Fully Protected	Endemic to emergent salt and brackish wetlands of the San Francisco Bay Estuary. Pickleweed marshes are primary habitat; also occurs in various other wetland communities with dense vegetation. Does not burrow, builds loosely organized nests. Requires higher areas for flood escape.	**No Potential.** The Study Area does not contain brackish marsh to support this species.
salt-marsh wandering shrew	*Sorex vagrans halicoetes*	CDFW Species of Special Concern	Salt marshes of the south arm of San Francisco Bay. Medium high marsh 6 to 8 feet above sea level where abundant driftwood is scattered among Salicornia.	**No Potential.** The Study Area does not contain brackish marsh to support this species
American badger	*Taxidea taxus*	CDFW Species of Special Concern	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Requires friable soils and open, uncultivated ground. Preys on burrowing rodents.	**No Potential.** The Study Area does not open shrub, forest, or similar habitat with friable soils to support this species. No burrows were observed within the Study Area.

APPENDIX D – STUDY AREA PHOTOGRAPHS

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Photograph 1. Adobe Creek and associated riparian vegetation. Facing northwest at the southern extent of the Study Area.



Photograph 2. Banks of Adobe Creek within the Study Area. Photo taken within the southern extent of the Study Area facing south.



Photograph 3. Adobe Creek in the northern portion of the Study Area, facing south.



Photograph 4. Adobe Creek south of Burke Rd facing northwest.



Photograph 5. Adobe Creek by Shoup Park.

APPENDIX C. CULTURAL RESOURCES STUDY (UNDER SEPARATE COVER AND AVAILABLE FOR REVIEW BY QUALIFIED INDIVIDUALS ONLY)