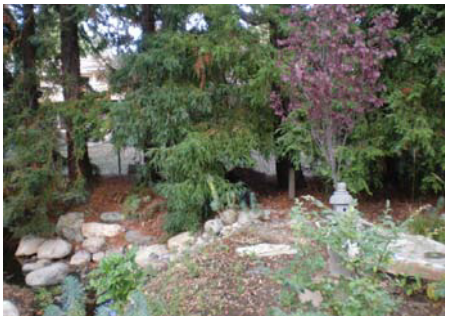
West Valley Sanitation District

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Quito Basins Q3 and Q4 Sanitary Sewer Rehabilitation Project



November 2020

Scheidegger & Associates

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

QUITO BASINS Q3 AND Q4 SANITARY SEWER REHABILITATION PROJECT

November 2020

LEAD AGENCY:

West Valley Sanitation District
100 East Sunnyoaks Avenue
Campbell, CA 95008-6608
(408) 378-2407

PREPARED BY:

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WITH ASSISTANCE FROM:

Environmental Collaborative (Biology)
Archeo-Tec (Cultural Resources)

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INTRODUCTION AND PROJECT DESCRIPTION

1. **Project Title:** Quito Basin Q3 and Q4 Sewer Rehabilitation Project

2. **Lead Agency Name and Address:** West Valley Sanitation District
100 East Sunnyoaks Avenue
Campbell, CA 95008-6608

3. **Contact Person and Phone Number:** Alan Kam
(408) 385-3030
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4. **Project Location:**

Figures 1 and 2 show the location of the Quito Basin Q3 and Q4 Sewer Rehabilitation Project (Project) area. The Project area, denoted as Subbasins 3 and 4 on Figure 2, is located in southeastern Santa Clara County at the base of the Santa Cruz Mountains in the City of Saratoga. Q3 and Q4 are roughly confined by Allendale Road to the north, Los Gatos-Saratoga Road (Highway 9) to the south, and Fruitvale Road to the West.

5. **Project Sponsor's Name and Address:** West Valley Sanitation District
100 East Sunnyoaks Avenue
Campbell, CA 95008-6608

6. **General Plan Designation:** Very low density residential[1]

7. **Zoning:** Single family residential 1-40,000[2]

8. **Description of Project:**

West Valley Sanitation District (WVSD) provides wastewater collection and disposal services for the cities of Campbell and Monte Sereno, much of Saratoga, the Town of Los Gatos, and some unincorporated areas of Santa Clara County within the district boundary. WVSD's service area is more than 18,000 acres, or about 28 square miles. The collection system, which is operated and maintained by WVSD, consists of 414 miles of main and trunk sewers and 200 miles of sewer laterals. WVSD provides sewer maintenance, repair, and rehabilitation throughout the entire system, as well as storm drain management in all areas except for unincorporated areas of the county.

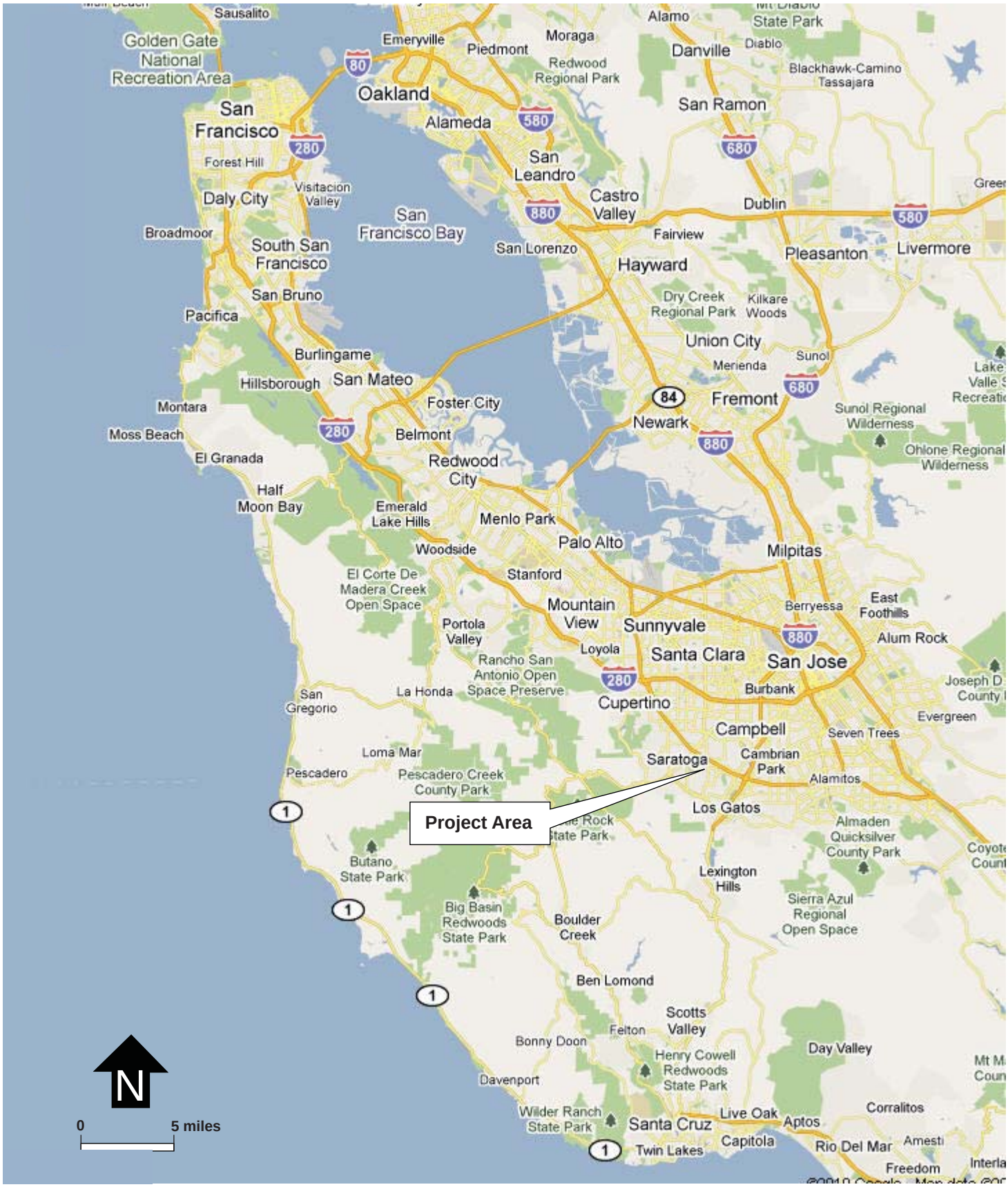


Figure 1. Regional Location

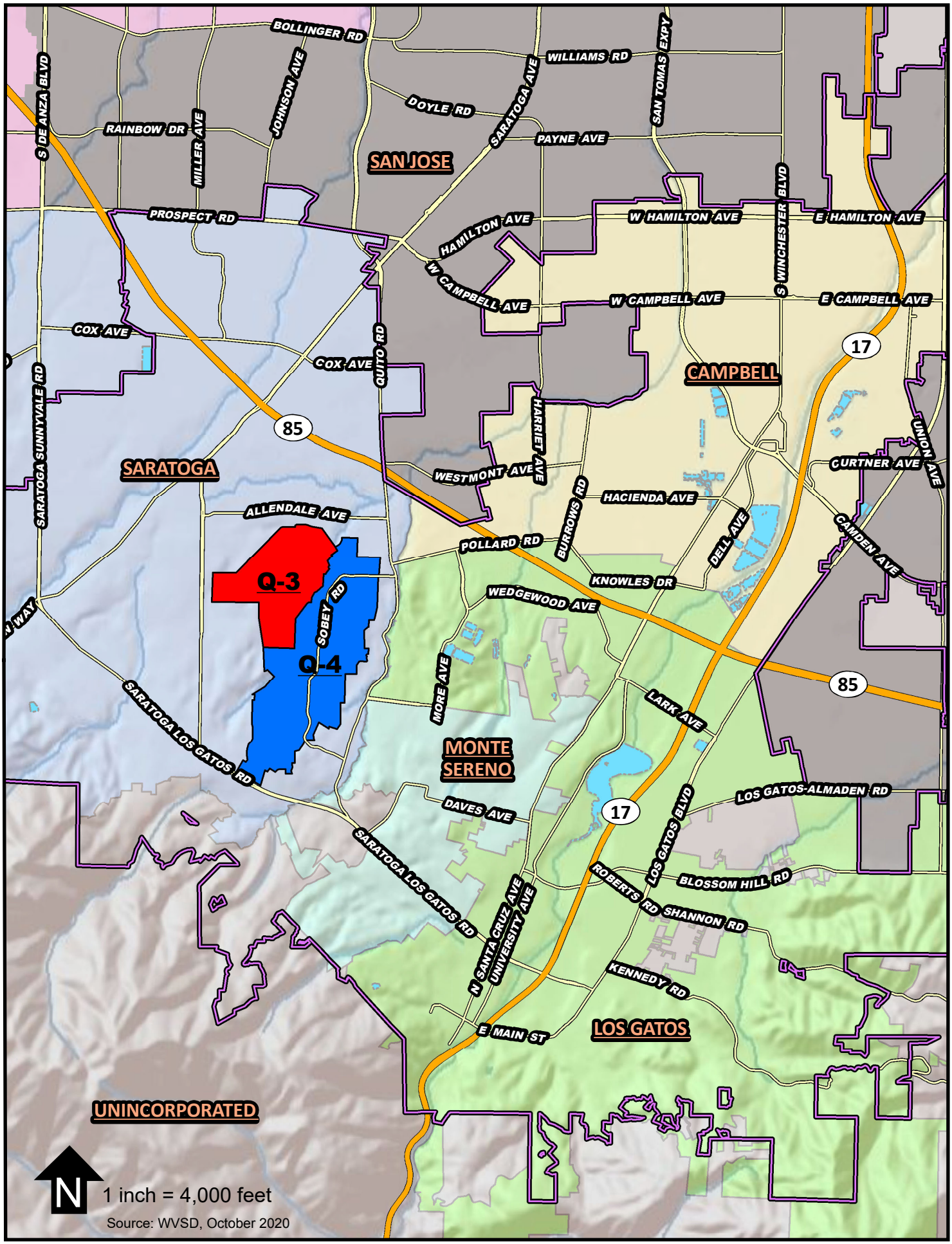


Figure 2. Location of Subbasins Q3 and Q4

The Project has long been considered by WVSD to be a high priority sewer rehabilitation project in their service area. An ongoing district-wide project priority process has confirmed that the Project area is a high-risk component of the collection system.[3] Key factors include the age of the pipelines, maintenance history, and sensitivity of the area if a failure were to occur. The existing clay sewer lines were originally installed in the 1950s and 1960s and have exceeded their useful life, allow excessive infiltration/inflow of groundwater, surcharge during storm events, and do not conform to current WVSD design standards. These lines were also identified as having capacity issues.

Project Overview. The proposed Project consists of the following components:

- Replacement of approximately 8,772 feet of 6, 8, and 10-inch diameter sanitary sewer mains with 8, 10, and 15-inch high density polyethylene (HDPE) pipe using the pipe bursting construction method.

- Rehabilitation of approximately 3,360 feet of 6 and 8-inch diameter sanitary sewer mains using the cured-in-place pipe (CIPP) process.

- Installation of approximately 766 feet of 12- and 16-inch diameter sanitary sewer mains by open cut excavation.

- Installation of approximately 1,200 feet of 16-inch diameter sanitary sewer mains by guided auger boring.

- Point repairs of 6 and 8-inch diameter sanitary sewer mains by open cut excavation.

- Sanitary sewer lateral replacement with cleanouts.

- Replacement of approximately 1 sanitary sewer manhole.

- Inspection of 52 existing sanitary sewer manholes with rehabilitation as needed.

Figure 3 shows the layout and construction characteristics of the Project. The pipelines are predominantly in sanitary sewer easements within residential lots, while some segments are within public roadways. The majority of the pipelines are immediately adjacent to Sobey Creek, Vasona Creek, and an unnamed tributary.

Twelve creek crossing (CC) locations are also shown on Figure 3. These sites are potentially more sensitive than other pipeline segments due to their potential for direct impact to the surface water courses. Pipe bursting and CIPP will be used to replace/rehabilitate the pipeline segments at these crossings.

Preliminary design of the Project began in 2012 and was taken to 50% design completion, then put on hold in 2013 as WVSD priorities shifted. In 2018, the Project restarted and the District opted to evaluate how to best address construction and maintenance issues associated with downstream easement sewers located along creek banks.

Creek Crossing Rehabilitation

Creek Crossing	USMH	DSMH	Length (ft)	Existing Diameter (inches)	Existing Material	New Diameter (inches)	New Material	Construction Method
CC1	5-006-03	5-006-02	214	6	VCP	8	HDPE	Pipe Bursting
CC2A/2B	6-008-05	6-008-04	344	6	VCP	8	HDPE	Pipe Bursting
CC3	6-008-04	6-008-03	149	6	VCP	8	HDPE	Pipe Bursting
CC4	6-008-03	6-008-02	265	8	VCP	10	HDPE	Pipe Bursting
CC5	6-005-08	6-005-09	276	6	PVC	8	HDPE	Pipe Bursting
CC6	6-005-04	6-005-02	246	8	CIP	10	HDPE	Pipe Bursting
CC7	6-006-05	6-006-04	65	8	VCP	8	CIPP	CIPP
CC8	6-008-16	6-008-10	58	6	VCP	10	HDPE	Pipe Bursting
CC9	6-015-01	6-008-01	100	8	DIP	8	CIPP	CIPP
CC10	6-008-02	6-008-14	58	8	VCP	8	CIPP	CIPP
CC11	6-008-01	6-009-01	350	10	VCP	10	CIPP	CIPP

Construction Notes:

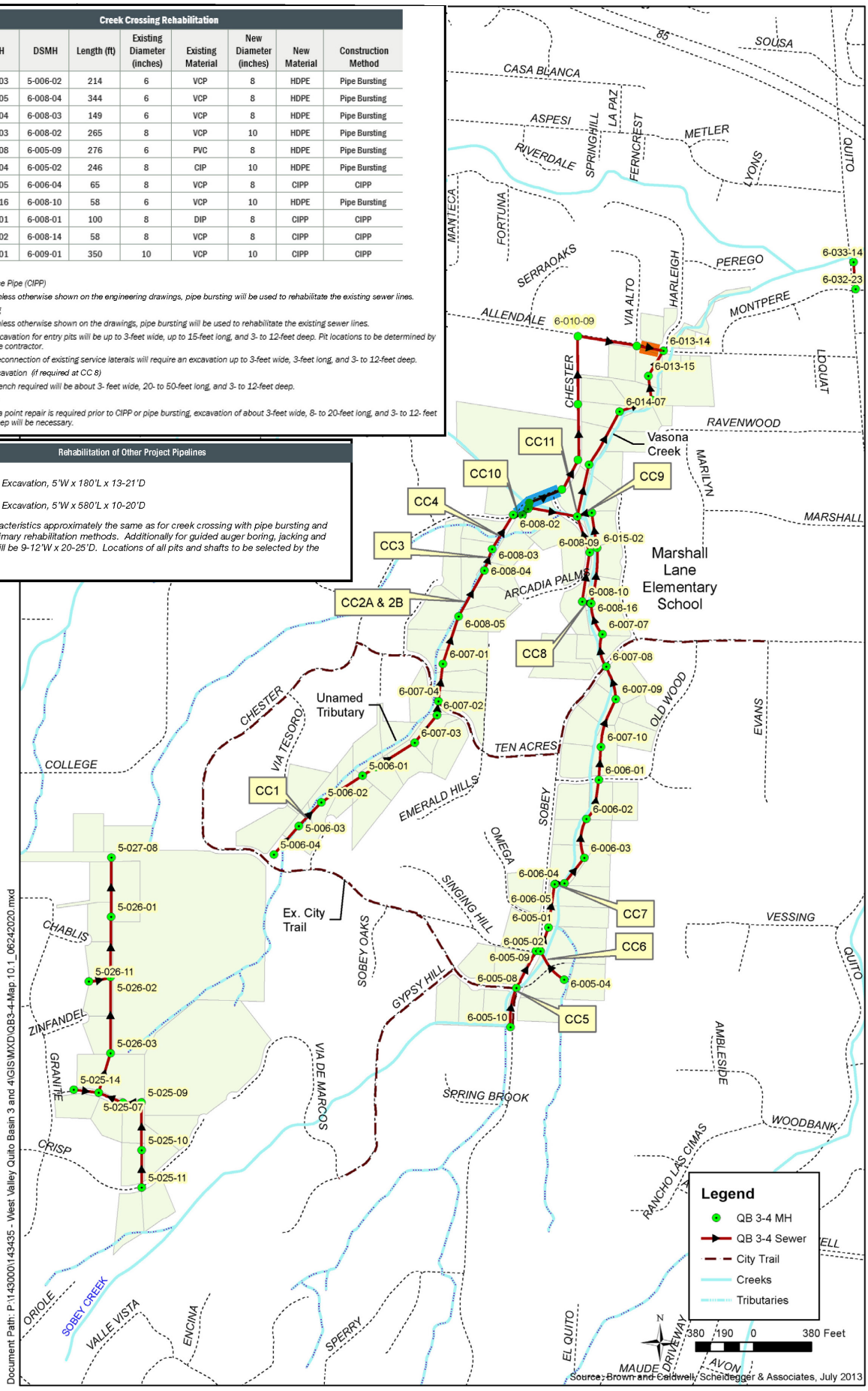
1. *Cured-In-Place Pipe (CIPP)*
   a. *Unless otherwise shown on the engineering drawings, pipe bursting will be used to rehabilitate the existing sewer lines.*
2. *Pipe Bursting*
   a. *Unless otherwise shown on the drawings, pipe bursting will be used to rehabilitate the existing sewer lines.*
   b. *Excavation for entry pits will be up to 3-feet wide, up to 15-feet long, and 3- to 12-feet deep. Pit locations to be determined by the contractor.*
   c. *Reconnection of existing service laterals will require an excavation up to 3-feet wide, 3-feet long, and 3- to 12-feet deep.*
3. *Open Cut Excavation (if required at CC 8)*
   a. *Trench required will be about 3- feet wide, 20- to 50-feet long, and 3- to 12-feet deep.*
4. *Point Repair*
   a. *If a point repair is required prior to CIPP or pipe bursting, excavation of about 3-feet wide, 8- to 20-feet long, and 3- to 12- feet deep will be necessary.*

Rehabilitation of Other Project Pipelines

Open Cut Excavation, 5'W x 180'L x 13-21'D

Open Cut Excavation, 5'W x 580'L x 10-20'D

Construction characteristics approximately the same as for creek crossing with pipe bursting and CIPP being the primary rehabilitation methods. Additionally for guided auger boring, jacking and receiving shafts will be 9-12'W x 20-25'D. Locations of all pits and shafts to be selected by the contractor.



Source: Brown and Caldwell Reference 5

Figure 3. Layout and Construction Characteristics of the Proposed Project

This reevaluation resulted in changes in the original rehabilitation approach identified in the 2013 design. Contract drawings for the Project based on a 50% design were completed in January 2020 based on additional geotechnical information and recommended trenchless construction methods.[4] Technical Memorandum 3 was prepared in February 2020 which provides a description of the current Project.[5] The 2013 Technical Specifications for the Project will be updated later in 2020. After design activities and the Contract Documents are completed, a contractor will be selected. The Contract Documents will be enforced and govern every aspect of the Project.

Initial Activities. An important initial activity to be conducted is resident notification of upcoming construction activities. The process includes providing written notice to all affected residences adjacent to the Project alignment and work areas. The notices will be provided 30 days, 7 days, and 1 day prior to start of work and would provide information on Project activities and the rehabilitation schedule.

Just prior (10 working days maximum) to beginning work at a Project site, the contractor will document existing conditions. Photographs and videotapes will be taken to show in sufficient detail all areas of work activity, including the pipeline alignment, areas of excavation, temporary staging areas, routes of ingress and egress for hauling and delivery on private property, etc., and all other areas the contractor believes are appropriate.

The contractor must have obtained an approved traffic control plan (TCP) from the City of Saratoga at least 5 days prior to mobilizing to specific work areas. The contractor must also have all Occupational Safety and Health Administration (OSHA) required notices and establishment of safety programs.

Depending on construction technique and location, initial activities at specific work areas include a pipeline cleaning and preliminary closed-circuit TV (CCTV) video inspection of pipeline segments, demolition and removal of pavement structures, potholing of all adjacent utilities, and excavation and disconnection of all service laterals. Temporary surface piping will be used to bypass wastewater flows between upstream and downstream manholes during rehabilitation of a given pipeline segment. The diversion plan must be reviewed by WVSD at least 14 days prior to implementation.

Construction Techniques. WVSD will utilize several construction techniques to complete rehabilitation activities.[5] These techniques, which are discussed below, include CIPP, pipe bursting, open cut excavation, and pilot tube and guided auger boring. Use of a given technique is based on prior WVSD experience, and the specific conditions and constraints posed by each pipeline segment to be rehabilitated. The location of any subsurface pits to support pipe bursting or guided auger boring will be determined by the contractor, but it is anticipated that most will be over the pipeline alignment while others may be to the side.

Figure 3 has been structured to provide an overview of the Project and the construction techniques to be employed. Twelve sites have been identified where rehabilitation activities would be potentially more sensitive to the environment.

CIPP. CIPP is a widely used trenchless method for restoring the structural integrity of sewer lines. Pipeline segments of up to 400 feet can be rehabilitated at one time. Generally, excavation is not required for this process since existing manholes are used to complete the process. As noted on Figure 3, CIPP will be used at CC7 and CC9-CC11.

With the CIPP process, a resin-impregnated tube is installed into the damaged sewer. The process results in a seamless, jointless "pipe-within-pipe" with a smooth, continuous inner surface. Because the resin-impregnated tube is quite thin, any reduction to flow capacity is minimal. The tubes are manufactured by the supplier at one of their plants. The felt tube is coated with a permanently bonded, continuous polyethylene layer. The polyethylene coating is firmly bonded to the felt and is resistant to hydrolysis and chemical attack. Once transported to the Project site, installation includes the following steps:

- The tube is filled with resin using a serial vacuum impregnation process to ensure the tubes are completely filled.
- The resin-filled tube is inverted (turned inside-out) into the deteriorated pipe using specialized equipment.
- Water pressure propels the inverting tube through the pipe.
- After the tube is fully inverted, hot water (or, alternatively, steam) is circulated through it, curing the resin and forming a new pipe.
- Service laterals are restored using robotically controlled cutting devices.
- The rehabilitated pipe is then inspected using CCTV.

Typically, with CIPP, a Controlled Head Inversion Process (CHIP) unit is used. This unit produces the hydraulic pressure needed to invert the resin-impregnated tube into the deteriorated pipe. The unit also enables installers to monitor and control the inverting and curing pressures, helping ensure the pipe is tight fitting. It also improves the ability to negotiate bends, difficult offsets, and other irregularities in the host pipe.

Pipe Bursting. Pipe bursting is also a widely used trenchless method for rehabilitating pipelines that has been used by WVSD on previous projects. Pipe bursting can be completed quickly with minimal disruption to the surface. As indicated by Figure 3, pipe bursting would be used extensively in the Project area.

Types of pipe bursting techniques include pneumatic and hydraulic/static. A simple schematic of a pneumatic pipe bursting process is shown on Figure 4. During pneumatic pipe bursting, the pipe bursting tool is guided through the old or "host"

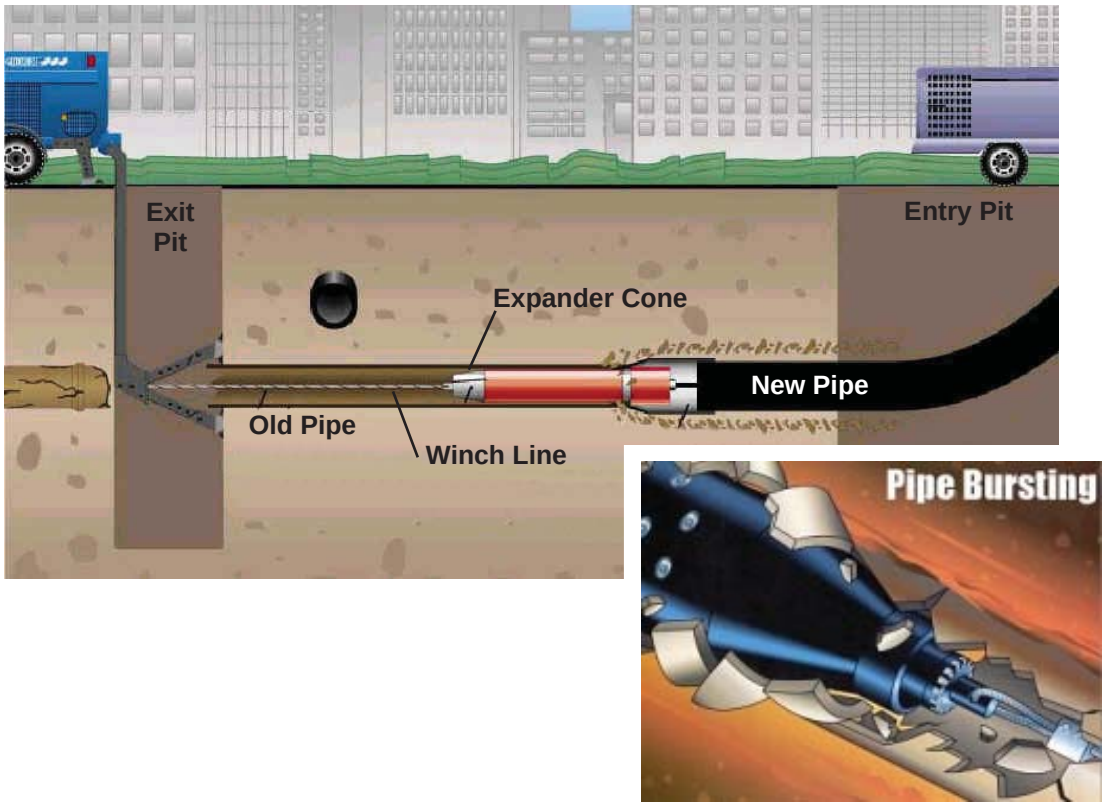


Figure 4. Schematic of a Pneumatic Pipe Bursting Process

pipe by a constant tension winch. As the tool travels through the pipe, its percussive action effectively breaks apart the old pipe and displaces the fragments into the surrounding soil. As the tool makes its way through the host pipe, it simultaneously pulls in the new pipe, usually HDPE, as will be used by WVSD. In backyard installations, portable equipment would be used because of space restrictions and to minimize impact. Equipment and material needs are minimal.

Pipe bursting of a given pipeline segment requires both an entry pit and exit pit. These are usually adjoining manhole locations, but if the distance between them is greater than 400 feet, an intervening pit must be excavated. The size of the entry pit will vary depending on the size of the pipe to be rehabilitated. For the proposed Project, it is anticipated that the pits will be 3 feet wide and up to 15 feet long, and from 3 to 12 feet deep because of the need to bend the HDPE pipes during installation.[6] Exit pits would use existing manholes without excavation. For all excavation deeper than 5 feet, appropriate shoring, bracing, sloping, or other measures will be used for worker protection and to conform to OSHA requirements. Assembly of the HDPE pipe to the required lengths will be completed within the public street or easement areas and then manually transported and aligned to the entry pit.

Once the replacement pipeline is installed, the contractor will reconnect the laterals, then backfill and compact all excavated areas per the requirements of the Contract Documents. Backfilling and compaction usually occur the same day. Pipe cleaning and final CCTV video inspection of the installed pipe will be completed. WVSD anticipates that 300 to 400 feet of sewer line can be rehabilitated within one working day.

Pilot Tube and Guided Auger Boring. Pilot tube guided auger boring is a three-stage trenchless process of installing pipe up to 24-inches in diameter with the precision required for gravity sewer lines. A pilot tube is first installed by way of a rotating slanted-faced head for steering and a theodolite guidance system. Accuracy in this process is achieved through video monitoring of an illuminated target at the head. The pilot tube segments are installed behind the steering head. After the steering head reaches the reception shaft, a reaming head and auger tube sections are installed behind the pilot tubes to excavate the bore to the required diameter. The final stage is the product pipe installation, during which a pipe adapter is installed on the last section of auger casing and product pipe segments are thrust into place as the auger tubes are removed at the reception shaft.

The process requires jacking and receiving shafts that can be as small as 9 to 12 feet in diameter and 20 to 25 feet in depth, allowing for fewer underground utility conflicts and less traffic impacts. Maximum drive lengths are dependent on several factors such as pipe size and soil conditions but can extend 350 to 400 feet.

Open Cut Excavation. Open cut excavation is a conventional technique for repair or replacement of sewer lines. For the proposed Project, open cut would be used

along Chester and Allendale Avenues and in any areas where point repairs may be necessary. With open cut excavation, the extent of excavation is dependent on the size and depth of the pipeline.

Manholes. There are 59 manholes within the Project pipeline alignments. Each of these structures will be inspected by the contractor and Construction Manager. If active water infiltration into the manhole is identified or repair is otherwise needed, then the structure will be rehabilitated. Rehabilitation methods include injection grouting and sealing of manhole interiors; removal and replacement of manhole steps; repairing of manhole walls and benching, frames, covers, and concrete collars; and addition of grade rings as needed. Thus far, no manholes have been identified as needing to be abandoned and removed, 53 manholes will need to be rehabilitated, and 6 new manholes will be required.[6]

Bypass Pumping. Prior to rehabilitation, replacement, cleaning operations, internal CCTV inspection, and inspection of the Project pipelines and service laterals, it will be necessary for the contractor to provide temporary bypassing and dewatering of the sewers in accordance with the Contract Documents. Using a bypass pump and surface piping, sewage will be pumped from an upstream manhole to a downstream manhole, or into a tanker. The purpose of bypass pumping is to provide a dry environment for rehabilitation activities to proceed, to prevent sewage overflow, and provide continuous sewer services to the users of the sanitary sewer at all times.

The actual design of the bypass arrangement and alignment is the responsibility of the contractor and a bypass plan will be submitted to the Construction Manager within 14 days of the notice to proceed. Service to laterals will not be disrupted for more than 8 hours between 8:00 a.m. to 5:00 p.m. Monday through Friday unless necessary and an alternate means of service is provided to the owner/resident. The bypass flow will be continuously monitored by the contractor, electric pumps and generators will be sound attenuated, all open manholes used for flow diversion will be covered and sealed to prevent odor problems, and all manholes will have covers reinstalled when not in use or during periods of inactivity.

Sheeting/Shoring. As noted on Figure 3, pipe bursting, open cut, and guided auger boring would require different levels of excavation, most greater than 5 feet in depth. Excavations greater than 5 feet in depth must comply with Section 6705, et seq., of the California Labor Code, OSHA, and the Contract Documents which require that proper shoring, bracing, sloping, or other provisions must be made by the contractor for worker protection from the hazards of caving ground. The Geotechnical Investigation for Q3 and Q4 also noted high groundwater levels combined with loose/soft soils near Sobey Creek and the unnamed tributary make excavations in those areas especially subject to caving.[7]

Dewatering. As indicated above, high groundwater levels were encountered in several areas during the Geotechnical Investigation for Q3 and Q4. In 2013, free groundwater was documented in 4 of the 10 test borings at depths of 1.6 to 17.5 feet below ground surface. During supplemental investigations in 2019, groundwater was encountered in five additional borings near the intersection of Chester and Allendale at 18 to 30 feet below ground surface. While fluctuations in the groundwater are subject to a number of factors, it is reasonable to anticipate that groundwater may be encountered during excavations, particularly near Sobey Creek and the unnamed tributary. The contractor will be required to dewater excavated areas to complete work activities and in a manner to be approved by WVSD which typically involves discharge to the sanitary sewer collection system.

Staging Areas, Parking, and Storage. All stockpiled materials, parking areas, and equipment storage areas must be approved by WVSD and the City of Saratoga and will be located to avoid interference with private property and to prevent hazards to the public. Assembly of the HDPE pipe to the required lengths, where necessary, will be completed in the public street or easement area and then manually transported and aligned to the entry pit.

Post-rehabilitation Activities. In areas where a replacement pipeline is installed, the contractor will then reconnect the laterals, and backfill and compact all excavated areas per the requirements of the Contract Documents. Backfilling and compaction usually occur the same day. Where required, pipe cleaning and final CCTV video inspection will be completed.

Cleanup and Restoration. The contractor will, at all times, keep property on which work is in progress and the adjacent property free from the accumulation of waste material or rubbish caused by employees or by the work. All surplus material will be removed from the site daily. Upon completion of the construction, the contractor will remove all temporary structures, rubbish, and waste materials resulting from their operation.

Roadway pavement, vegetation, or other hardscape areas that are damaged or removed because of contractor's operations will be restored or replaced to as nearly the original condition and location as is reasonably possible as stipulated in the Contract Documents and the City of Saratoga encroachment permit,

Key Environmental Controls. WVSD will be incorporating a variety of control measures into the Contract Documents to address public safety and environmental considerations, some of which were discussed above. All measures are detailed in the discussion of the environmental checklist that follows. Because the Project would be constructed within residential areas, there are certain control measures that may have particular importance to affected residents.

The Contract Documents will require the contractor to conduct the work to ensure the least possible obstruction to traffic and inconvenience to the public and

residents in the vicinity of the work, and to ensure the protection of public safety and property. The contractor will restore all existing landscaping and hardscape (concrete or AC walkways, paths, or other surface features) disturbed by the work activities to the preconstruction conditions acceptable to WVSD and the City of Saratoga. Landscape will be performed under direction of a licensed landscaping subcontractor. Special precautions will be taken if the limited excavation activities encounter roots of mature trees in the work area. There is no expectation to remove any trees.

The contractor will be developing a TCP that must be approved in advance by WVSD and the City of Saratoga. The TCP will address all traffic, parking, material storage, and safety considerations associated with work activities. The TCP will include all streets and locations where work is to be performed and will indicate each stage of work, dates for temporary closure of streets, section of closure, signage, flaggers, and any other pertinent information. Measures will be provided for traffic flow, parking disruption, property access, and pedestrian traffic. No open holes or trenches will be allowed after the end of each work day. At the end of each work period, all components of the traffic control system will be removed from the traveled way, shoulder, and auxiliary lanes.

Schedule. At this time, WVSD anticipates starting construction of the Project in March 2021 and completing it by January 2022, which is a construction period of about 10 months.

9. **Surrounding Land Uses and Setting:**

Rehabilitation activities will occur within the City of Saratoga. The Project area is predominantly very low density residential, characterized by large homes, scenic neighborhoods, and roadways that can be described as quaint and scenic. Topography is generally characterized by gentle (less than 17 percent) inclination northeast facing slopes.

The Project area is also located within the San Tomas Aquino Creek Watershed Management Unit (WMU) which forms the eastern edge of the West Valley Watershed Management Area (WMA). The Santa Clara Valley Water District (SCVWD) is responsible for providing stream stewardship, water supply, and flood control for the WMU, WMA, and all of Santa Clara County. The WMU drains an area of about 45 square miles. San Tomas Aquino Creek is the principal drainage in the WMU, which originates in the foothills of the Santa Cruz Mountains and travels about 16 miles through the Project area and ultimately into the southern end of Guadalupe Slough and southern San Francisco Bay.[8] In the Project area, Vasona Creek, which accepts flows from Sobey Creek and the two unnamed tributaries, drains to San Tomas Aquino Creek but is not a primary tributary.

Figure 3 shows the location of the school closest to the Project area which includes Marshall Lane Elementary School near CC8. West Valley College is located just to the west. Sobey Road, Ten Acres Road, Chester Avenue, and Gypsy Hill Road are designated to be within the existing City of Saratoga trail system.[9]

The City does not have any upcoming paving or bridge projects in the Project area.[12] WVSD will maintain contact with the City as design is finalized and start of construction is confirmed to identify known future projects in the Project area.

10. **Consultation with Native American Tribes**

Notification requests from local Native American tribes pursuant to Public Resources Code Section 21080.3.1, Subd. (b) have not been received by WVSD. However, local Native American contacts were consulted during preparation of the cultural resource assessment discussed in Chapter 3, Section E, and included as Appendix B.

11. **Other Public Agencies Whose Approval is Required:**

- U.S. Army Corps of Engineers (Corps), possible Section 404 Nationwide Permit authorization
- Regional Water Quality Control Board (RWQCB), possible 401 water quality certification or compliance with Water Quality Order No. 2004-004-DWQ
- California Department of Fish and Wildlife (CDFW) notification and possible Streambed Alteration Agreement
- SCVWD, possible encroachment permit
- OSHA, Construction Activity Permit
- City of Saratoga, encroachment permit

12. **Environmental Factors Potentially Affected:**

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is "Less Than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

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

CHAPTER 2
DETERMINATION

On the basis of this initial evaluation:

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

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

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

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

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Jon Newby
Signature

10/22/2020
Date

Jon Newby
Printed Name

District Manager and Engineer

CHAPTER 3

DISCUSSION OF ENVIRONMENTAL CHECKLIST

A discussion of the environmental checklist is included below. In general, the format followed includes a discussion of the setting and an impact analysis for each resource category. Reference and information sources for the checklist are provided at the end of this document.

The impact analyses include a summary of control measures incorporated into the Project by West Valley Sanitation District (WVSD) to minimize potential impacts, the environmental checklist significance criteria, and an analysis of potential impacts. Control measures are procedures known to further reduce the potential for impacts based on regulatory agency requirements, standards in the industry, and construction/operating experience. As appropriate, mitigation measures are included to reduce impacts to less-than-significant levels. The Mitigation Monitoring and Reporting Plan is included as Appendix A.

A. AESTHETICS

SETTING

The Quito Basin Q3 and Q4 Sewer Rehabilitation Project (Project) area is located in northeastern Saratoga near the foothills of the Santa Cruz Mountains. Land use is very low-density residential, characterized by large homes and neighborhoods and roadways which can be described as quaint and scenic. Topography of the Project area is generally characterized by gentle (less than 17 percent inclinations) northeast-facing slopes.

IMPACT ANALYSIS

Control Measures Incorporated by WVSD

Aesthetics

A1. Make every effort to restrict operations to areas within the easements or rights-of-way provided for the work. Any encroachment onto private property will be subject to written permission of the property owner which will be provided to WVSD.

A2. If vegetation or hardscape areas are damaged or removed because of contractor's operations, they will be restored or replaced under the direction of a licensed landscape contractor to as nearly the original condition and location as is reasonably possible in accordance to the Contract Documents, City of Saratoga specifications, and to WVSD's satisfaction. For these areas, photographic documentation of pre-Project conditions shall be approved by WVSD.

A3. Keep construction sites free from accumulations of waste materials, rubbish, and other debris caused by employees or by the work.

A4. Upon completion of the work, contractor shall remove all waste materials, rubbish, and debris from and about the premises as well as all tools, appliances, construction equipment and machinery, and surplus materials, and shall leave the site clean.

A5. Provide temporary lighting that complies with California Occupational Safety and Health Administration (OSHA) standards.

Significance Criteria

RESOURCE CATEGORY / SIGNIFICANCE CRITERIA	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
A. AESTHETICS						
Except as provided in Public Resources Code Section 21099, would the Project:						
1) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒	☐	10
2) Substantially damage scenic resources, including, but not limited to, trees, rock, outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒	☐	10
3) 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 points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐	☐	10
4) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☒	☐	☐	10

No Impacts: Criteria A1, A2

The Project is a short-term construction activity that would not affect a scenic vista nor substantially damage scenic resources.

Less-Than-Significant Impacts: Criteria A3, A4

Visual Degradation: Criterion A3. Criterion A3 relates to degradation of the existing visual character or quality of the area caused by a project. The proposed Project is a short-term construction activity with no permanent above-ground features, thus no long-term aesthetic

impacts would occur. As a construction project, however, short-term aesthetic impacts would occur.

The Project area consists of residential communities, frequented by narrow, tree-lined streets. Although the total duration of the Project would likely be about 10 months, the actual time construction crews would generally be present along a given line segment would be limited because 300 to 400 feet of sewer line can be rehabilitated per day.

To help minimize neighborhood disruption and general aesthetic impacts of construction, Control Measure A1 would have the contractor confine operations to easements or rights-of-way provided for the work unless certain work activities were necessary outside easements or rights-of-way and written permission is first obtained from an affected property owner. Control Measure A2 provides for replacement of damaged landscape and hardscape areas, and accumulations of waste material can occur at construction sites but Control Measure A3 would require roadways and properties be kept free of waste materials or rubbish caused by the construction crew or by their work. Final cleanup to pre-Project conditions is provided by Control Measure A4. Thus, the aesthetic impact related to visual degradation is less than significant and no mitigation is required.

Light and Glare: Criterion A4. Criterion A4 relates to the creation of a new source of light and glare that could affect views in the area. In general, work hours would be limited from 9:00 a.m. to 4:00 p.m. Monday through Friday or as indicated on the encroachment permit, with the permit hours taking precedence. Thus, lighting would not be necessary. However, there could be instances when nighttime work may be necessary due to construction needs. The sewage bypassing process and any dewatering operations may need to be monitored by construction personnel requiring lighting. Some lighting may also be necessary at the contractor's staging areas. All necessary lighting, however, would be temporary and localized to support Project activities and in compliance with OSHA standards (Control Measure A5). As a result, potential lighting or glare impacts are less than significant.

Mitigation Measures

None required.

B. AGRICULTURE AND FOREST RESOURCES

SETTING

The Project is within residential areas and local roadways. No agricultural or forest resources exist in the area. The State Department of Conservation farmland mapping and monitoring program classifies the area as Urban and Built-Up Land.

IMPACT ANALYSIS

Control Measures Incorporated by WVSD

None.

Significance Criteria

RESOURCE CATEGORY / SIGNIFICANCE CRITERIA	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
B. <u>AGRICULTURE AND FOREST RESOURCES</u> In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the Project:						
1) 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?	☐	☐	☐	☒	☐	10
2) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒	☐	10

	RESOURCE CATEGORY / SIGNIFICANCE CRITERIA	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
3)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined in Public Resources Code section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒	☐	10
4)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒	☐	10
5)	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?	☐	☐	☐	☒	☐	10

No Impacts: Criteria B1–B5

Criteria B1 through B5 are not relevant to the Project and no impact would occur.

Mitigation Measures

None required.

C. AIR QUALITY

SETTING

The Project area is located within the western portion of Santa Clara County, part of the nine-county San Francisco Bay Air Basin (Air Basin). The local air quality regulatory agency responsible for this Air Basin is the Bay Area Air Quality Management District (BAAQMD).

BAAQMD regulates air quality through its permit authority over most types of stationary emission sources and through its planning and review process. The Air Basin is currently designated "non-attainment" for ozone and particulate matter (PM_{10} and $PM_{2.5}$) and either attainment or unclassified for other pollutants.

California Environmental Quality Act (CEQA) Air Quality Guidelines have been developed by the BAAQMD.[11] Of relevance to the proposed Project, the Air Quality Guidelines provide BAAQMD-recommended procedures for evaluating potential construction-related air quality impacts during the environmental review process consistent with CEQA requirements.

The Air Quality Guidelines also address operation-related impacts, but the proposed Project is a construction activity with no operational components.

Construction-related activities would generate criteria air pollutants, including carbon monoxide; sulfur dioxide; particulate matter of 10 micrometers or less in diameter; precursors such as reactive organic gases and oxides of nitrogen; and greenhouse gases (GHGs) from exhaust, fugitive, and off-gas emissions. Sources of exhaust emissions include haul trucks, delivery trucks, worker commute motor vehicles, and other construction equipment. Sources of fugitive emissions such as particulate matter dust include construction-related activities such as soil disturbance, grading, and material hauling.

The Air Quality Guidelines provide preliminary screening criteria. The criteria provide a conservative indication of whether construction of a project would result in the generation of criteria air pollutants and/or precursors that exceed thresholds of significance. If all the following screening criteria are met, the construction of a project would likely result in a less-than-significant impact from criteria air pollutant and precursor emissions:

1. The project is below the applicable screening level size shown in Table 3-1 of the Air Quality Guidelines. (Table 3-1 does not directly address pipeline rehabilitation projects but rather various types of land use development projects which have considerably larger construction footprints than the proposed Project.)

2. All basic construction mitigation measures would be included in the project design and implemented during construction. (These measures are included as control measures in a following section.)

3. Construction-related activities would not include any of the following:

    a. Demolition. (The Project does not have demolition activities.)

    b. Simultaneous occurrence of more than two construction phases. (Not applicable to the proposed Project.)

    c. Simultaneous construction of more than one land use type. (Not applicable to the proposed Project.)

    d. Extensive site preparation such as grading, cut/fill, or earth movement. (The proposed Project includes rehabilitation activities which are minimally intrusive.)

    e. Extensive material transport (e.g. greater than 10,000 cubic yards of soil import/export) requiring a considerable amount of haul truck activity. (The proposed Project has minimal haul truck needs.)

The BAAQMD defines sensitive receptors as facilities where sensitive receptor population groups (children, the elderly, the acutely ill, and the chronically ill) are likely to be located. These land uses include residences, schools, playgrounds, childcare centers, retirement homes, hospitals, and medical clinics. As discussed earlier in this Initial Study (IS), the Project

is within residential areas. The closest schools to the Project area include West Valley College and Marshall Lane Elementary School (Figure 3).

IMPACT ANALYSIS

Control Measures Incorporated by WVSD

C1. Water all exposed surfaces up to two times per day, if conditions warrant.

C2. Cover all haul trucks transporting soil, sand, or other loose material off-site.

C3. Remove all visible mud or dirt track-out onto adjacent public roads using wet power vacuum street sweepers at least once per day. The use of dry sweeping is prohibited.

C4. Pave all roadways, driveways, and sidewalks as soon as possible.

C5. Minimize idling times either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

C6. Maintain and properly tune all construction equipment in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

C7. Post a publicly visible sign with the telephone number and person to contact at the WVSD regarding dust complaints. This person shall respond and take corrective action within 48 hours. The phone number of the BAAQMD shall also be visible to ensure compliance with applicable regulations.

C8. To the extent possible, select pipe bursting and cured-in-place (CIPP) installation and wastewater bypass pumping locations to minimize odor exposure to local residents. All open manholes used for bypass pumping shall be covered and sealed to prevent odor problems. All manholes shall have covers reinstalled when not in use or during periods of inactivity.

C9. Provide written notice to all affected residences adjacent to the Project alignment and work areas. The notices will be provided 30 days, 7 days, and 1 day prior to start of work and will provide information on Project activities, the rehabilitation schedule, and protocol for providing complaints relative to odor, hazardous conditions, and noise. Notices shall be subject to review and approval by WVSD.

C10. If odor complaints are received, identify the source, evaluate and implement available abatement measures, and notify the complainant(s) of the results. If necessary, utilize upstream dosing with a masking agent to minimize odor production.

Significance Criteria

RESOURCE CATEGORY / SIGNIFICANCE CRITERIA	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
C. AIR QUALITY						
Would the Project:						
1) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐	☐	10, 11
2) 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?	☐	☐	☒	☐	☐	10, 11
3) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐	☐	10, 11
4) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐	☐	10, 11, 12

Less-Than-Significant Impacts: Criteria C1–C3

Planning Consistency and Air Emissions: Criteria C1–C3. These criteria relate to air pollutant emissions, violation of air quality standards, consistency with air quality plans, and exposure of sensitive receptors to substantial pollutant concentrations. As discussed earlier in this section, the proposed Project complies with relevant screening criteria in the BAAQMD Air Quality Guidelines relative to criteria pollutants and precursors. GHG emissions are discussed in Section G. BAAQMD Best Management Practices (BMPs) for fugitive particulate (dust) emissions and exhaust emissions of criteria air pollutants, as well as several others, have been incorporated into the Project and will be implemented by the contractor (Control Measures C1-C7). Thus, air quality impacts are less than significant.

Odors: Criterion C4. Criterion C4 addresses creation of objectionable odors affecting a substantial number of people. As discussed earlier in this IS, the Project is within residential areas. While work activities at the manholes may involve localized odor generation, any odor generation would be short term in nature because with the construction technologies to be used pipeline rehabilitation would proceed rapidly, up to 300 to 400 feet per day. It should be noted that since switching to non-styrene resin in the CIPP process about 5 years ago, WVSD has not received any odor complaints on pipeline rehabilitation projects.[12]

The extent of odor generation would be influenced by the manner in which sewage bypass pumping is conducted by the contractor. While any odor generation is expected to be localized, short term in nature, and should not affect a substantial number of people, WVSD would require the contractor to implement certain measures. Control Measure C8 requires odor

generation to be a consideration in selecting bypass locations and requires manholes to be covered when in use or during periods of inactivity. Control Measures C9 and C10 provide noticing requirements and protocol for addressing any odor complaint received, and if necessary provide for upstream wastewater dosing with a masking agent to minimize odor production. With these control measures in place, the impact related to nuisance odor generation is less than significant.

Mitigation Measures

None required.

D. BIOLOGICAL RESOURCES

SETTING

Background

Biological resources associated with the Project area were identified through a review of available background information and a field reconnaissance survey. Available documentation was reviewed to provide information on general resources in the central Santa Clara County area, presence of sensitive natural communities, and the distribution and habitat requirements of special-status species which have been recorded from or are suspected to occur in the Project vicinity. This includes a record search conducted by the California Natural Diversity Data Base (CNDDB) of the California Department of Fish and Wildlife (CDFW).[13] Field reconnaissance surveys were conducted by James Martin, principal of Environmental Collaborative, on July 15, August 20 and September 20, 2013 to determine the vegetation and wildlife resources, presence of any sensitive natural communities, potential for jurisdictional wetlands and waters, and suitability of the Project area to support populations of special-status species. A follow-up survey was conducted on June 18, 2020 to confirm current field conditions. The following provides a summary of the regulatory framework related to the project of biological and wetland resources, followed by a description of those resources within the Project area, and an assessment of the significance of the potential impacts of Project implementation, and identifies measures necessary to mitigate any significant potential impacts.

Regulatory Framework

In addition to the environmental protection provided by the California Environmental Quality Act (CEQA), other state and federal regulations have been enacted to provide for the protection and management of sensitive biological resources. State and federal agencies have a lead role in the protection of biological resources under their permit authority set forth in various statues and regulations. The U.S. Fish and Wildlife Service (USFWS) is responsible for administering the Migratory Bird Treaty Act and the federal Endangered Species Act (ESA) for freshwater and terrestrial species, while the National Marine Fishery Service (NOAA Fisheries) is responsible implementing the federal ESA for marine species and anadromous fish. The U.S. Army Corps of Engineers (Corps) has primary responsibility for protecting wetlands under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. At the state

level, the CDFW is responsible for administration of the California ESA, and for protection of streams, waterbodies, and riparian corridors through the Streambed Alteration Agreement process under Section 1601-1606 of the California Fish and Game Code. Certification from the California Regional Water Quality Control Board (RWQCB) is also required when a proposed activity may result in discharge into navigable waters, pursuant to Section 401 of the Clean Water Act and EPA 404(b)(1) Guidelines. The RWQCB also regulates State Waters under the Porter Cologne Act.

Special-Status Species and Sensitive Natural Communities. Special-status species are plants and animals that are legally protected under the California and/or federal ESA or other regulations, as well as other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitat. Species with legal protection under the ESAs often represent major constraints to development, particularly when they are wide ranging or highly sensitive to habitat disturbance and where proposed development would result in a "take" of these species.

The primary information source on the distribution of special-status species in California is the CNDDB inventory, which is maintained by the Natural Heritage Division of the CDFW. Occurrence data is obtained from a variety of scientific, academic, and professional organizations, private consulting firms, and knowledgeable individuals, and entered into the inventory as expeditiously as possible. The presence of a population of species of concern in a particular region is an indication that an additional population may occur at another location within the region, if habitat conditions are suitable. However, the absence of an occurrence in a location does not necessarily mean that special-status species are absent from the area in question, only that no data has been entered into the CNDDB inventory. Detailed field surveys are generally required to provide a conclusive determination on presence or absence of sensitive resources from a particular location, unless suitable habitat is determined to be absent.

In addition to species-oriented management, protecting habitat on an ecosystem-level is increasingly recognized as vital to the protection of natural diversity in the state. The CNDDB also monitors the locations of natural communities that are considered rare or threatened, known as sensitive natural communities. The CNDDB has compiled a list of sensitive natural communities that are given a high inventory priority for mapping and protection. Although these natural communities have no legal protective status under the State or federal ESAs, they are provided some level of protection under the CEQA Guidelines. A project would normally be considered to have a significant effect on the environment if it would substantially affect a sensitive natural community such as a riparian woodland, native grassland, or coastal salt marsh. Further loss of a sensitive natural community could also be interpreted as substantially diminishing habitat, depending on the relative abundance, quality and degree of past disturbance, and the anticipated impacts.

Wetlands. Although definitions vary to some degree, wetlands are generally considered to be areas that are periodically or permanently inundated by surface or ground water, and support vegetation adapted to life in saturated soil. Wetlands are recognized as important features on a regional and national level due to their high inherent value to fish and wildlife, use as storage

areas for storm and flood waters, and water recharge, filtration, and purification functions. Technical standards for delineating wetlands have been developed by the Corps and the USFWS, which generally define wetlands through consideration of three criteria: hydrology, soils, and vegetation.

The CDFW, Corps, and RWQCB have jurisdiction over modifications to stream channels, riverbanks, lakes, and other wetland features. Jurisdiction of the Corps is established through the provisions of Section 404 of the Clean Water Act, which prohibits the discharge of dredged or fill material into "waters" of the United States without a permit, including wetlands and unvegetated "other waters." All three of the identified technical criteria must be met for an area to be identified as a wetland under Corps jurisdiction, unless the area has been modified by humans. Jurisdictional authority of the CDFW over wetland areas is established under Section 1601-1606 of the Fish and Wildlife Code, which pertains to activities that would disrupt the natural flow or alter the channel, bed, or bank of any lake, river, or stream. The RWQCB is responsible for upholding state water quality standards pursuant to Section 401 of the Clean Water Act and for regulating State Waters under the Porter-Cologne Act.

Relevant Local Plans and Policies. The City of Saratoga has goals and policies in its General Plan related to the protection of important biological resources.[9] These address the protection of native vegetation, creeks, special-status species, and tree resources. The City also has an ordinance codified in Article 15-50 of the municipal code[14] which regulates tree removal and preservation. All trees are considered “protected,” regardless of species, if they have a trunk diameter of 10 inches or more (31 inches in circumference measured from 4.5 feet above the ground). Additionally, ten species of native trees are considered protected if they have a diameter of 6 inches or more (or 19-inch circumference or more measured at 4.5 feet above ground). These include big leaf maple, black oak, California buckeye, coast live oak, valley oak, and coast redwood, among others. A permit is needed before a protected tree can be removed. A permit is also required to prune more than 25% of a protected tree’s canopy, or when the pruning does not follow the International Society of Arboriculture pruning guidelines. WVSD expects that no trees would require removal during construction and that the specific locations of excavation activities would be consistent with local agency requirements for tree preservation.

Biological Resources

Vegetation. The Project area is largely developed with single-family residence surrounded by ornamental landscaping and scattered mature native trees remnant of the grassland savanna and riparian woodlands which once formed the dominant native cover. Dense riparian woodlands continue to dominate the Sobey Creek and Vasona Creek corridors (tributaries to San Thomas Aquino Creek), bordered by yards and residences. Native tree species such as valley oak (*Quercus lobata*), live oak (*Q. agrifolia*), arroyo willow (*Salix lasiolepis*), California sycamore (*Platanus racemosa*), California bay (*Umbellularia californica*), and California buckeye (*Aesculus californica*) continue to dominate the woodland cover along the creek corridors. Trees vary in size and condition, with many mature specimens meet the size criteria used to define a protected or heritage tree under the Saratoga tree ordinance. Understory vegetation in the riparian woodlands is generally sparse to absent or consists of native poison oak (*Toxicodendron diversilobum*) and highly invasive and introduced periwinkle (*Vinca minor*),

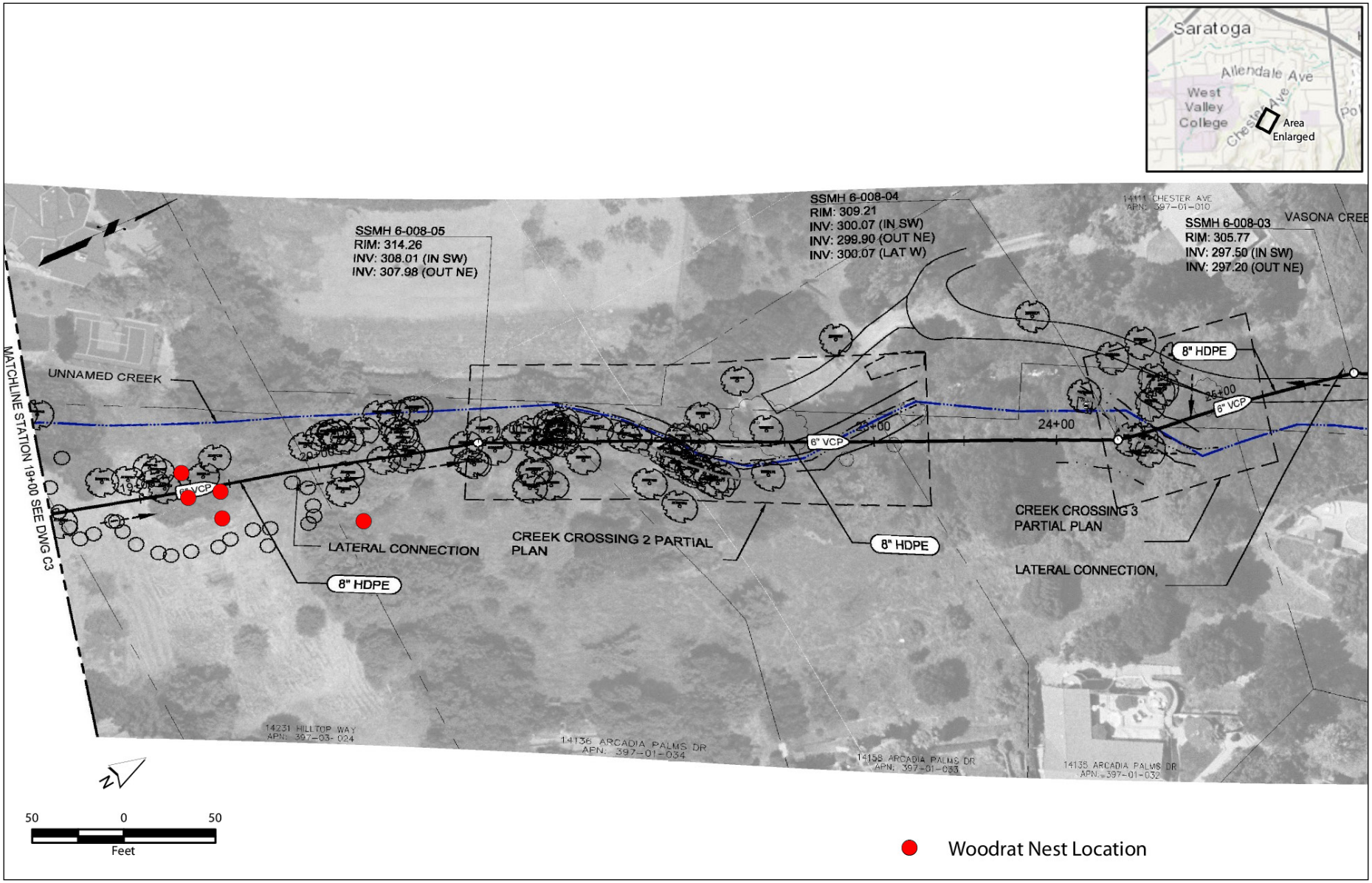
English ivy (*Hedera helix*) and Himalayan blackberry (*Rubus discolor*). Native wetland vegetation is generally absent along the creek bottom, which varies along the length of the creek corridor from gravel, to bedrock, to concrete-lined segments at roadway undercrossings. In some locations, the creek bed and banks have been modified by installation of rubble, concrete and other revetment, and slash. These are most pronounced at Creek Crossings (CC) 8 and 9, where the west bank at CC 8 now consists of a man-made wall of a varied concrete and wooden retaining structure about two feet in height with concrete poured as a continuous surface above that point. At CC 9, saccrete has been used for protection of the east bank opposite the outfall to Vasona Creek, and concrete rubble litters the channel bottom downstream of this confluence.

Adjacent yard areas along the creek corridor and throughout the developed valley floors have been planted with primarily non-native species, with the exception of the remnant native valley oaks, sycamores, coast live oaks, California bay trees, and California buckeyes which occasionally extend outside the creek channel. These include a groundcover of turf, ferns, periwinkle and ivy, shrubs such as bamboo, camellia, juniper, Japanese maple, rhododendron, citrus and other fruit trees, and trees such as coast redwood, Monterey pine, fan palms, acacia, holly, and a variety of fruit trees. Some yard areas have been unimproved and support a cover of ruderal (weedy) non-native grasses and forbs such as wild oats (*Avena fatua*), Blando Brome (*Bromus hordeaceus*), rattlesnake grass (*Briza maxima*), and yellowstar thistle (*Centaurea solstitialis*), together with scattered stands of coyote brush (*Baccharis pilularis*), poison oak, and toyon (*Heteromeles arbutifolia*).

Wildlife. Habitat values along the Project reach of Sobey Creek and Vasona Creek varies but is generally limited due to the proximity of residences, yards, and roadways, and abundance of non-native species. Some segments of the creek channels have been highly modified by property owners with riprap, fencing, and other improvements. Nevertheless, the creek channels and adjacent uplands most likely continue to be used as a dispersal corridor for wildlife, including raccoon, opossum, and black-tailed deer. Segments supporting native woodland cover provide habitat for a variety of bird species, including jays, kinglets, flycatchers, nuthatches, and others. This includes San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*) in the woodlands along a segment of a tributary to Vasona Creek near proposed CC 2 (see Figure 5). Adjacent yards and structures provide suitable habitat for species common to suburban areas, such as American robin, northern mockingbird, house finch, and brown towhee.

Regarding the aquatic habitat of the creeks, no amphibians of any type were observed along the entire reach during the field reconnaissance surveys. Downstream barriers prevent movement of steelhead and other native fish into the upper watershed. Water strider was the only invertebrate observed, and mosquito fish were the only fish species observed in pools in some location where surface water was present.

Sensitive Natural Communities. No occurrences of sensitive natural community types have been reported by the CNDDB from the Project site vicinity, and no native grasslands or other distinctive natural community types are present. However, the Sobey Creek and Vasona Creek corridors still contain a sizable component of native overstory species, dominated by valley oak, coast live oak, willow and California bay. The presence of non-native trees, shrubs, and groundcovers limits the value of this natural community type, but it continues to function as



Source: Environmental Collaborative, October, 2020

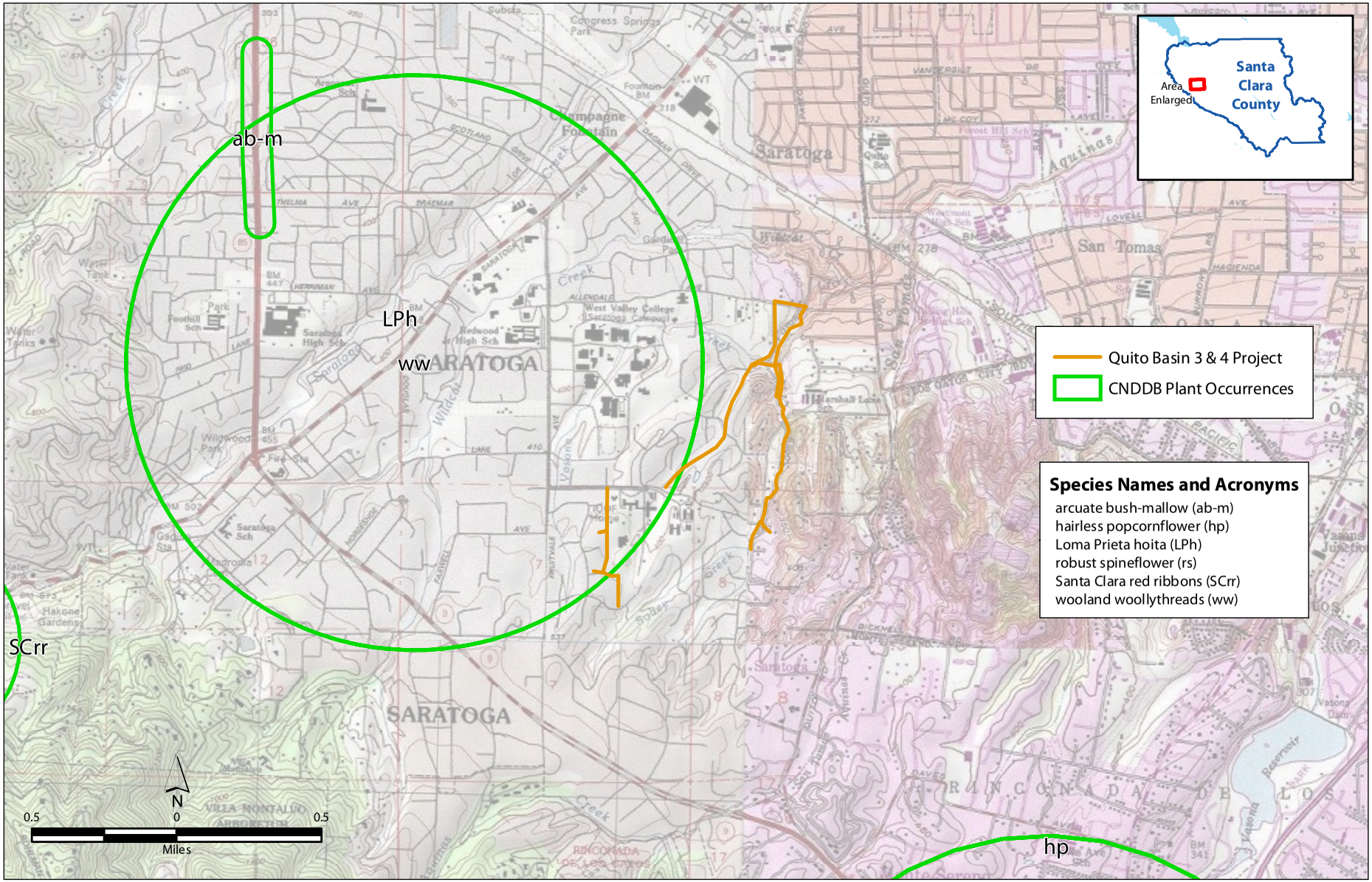
Figure 5. Woodrat Locations

a riparian corridor and should be considered sensitive habitat for planning purposes. The remaining tree canopy provides important shade for the aquatic habitat along the creek corridor.

Special-Status Species. Records maintained by the CNDDB and other information sources indicate that several special-status plant and animal species have been historically reported from or are suspected to occur in the Project vicinity. Figures 6 and 7 show the known distribution of special-status plant and animal species within several miles of the study area, respectively. Table 1 provides a list of the 23 special-status plant and animal species reported by the CNDDB or considered to have the highest potential for occurrence in the Project vicinity. These consist of 10 plant species and 13 animal species. For each species, habitat requirements were assessed and compared to vegetation communities/habitat present within the Project area based on the field reconnaissance surveys. Based on this review, an assessment was made regarding the potential for each species to occur in the Project area, as indicated in Table 1. In general, suitable habitat for most of these special-status species is absent due to the extent of past disturbance or lack of essential habitat characteristics. No special-status plant species were observed and none are expected to be present within the sewer alignments given that most areas have been improved with paved roadways, are heavily landscaped with non-native cover, or have been highly disturbed by other human activities.

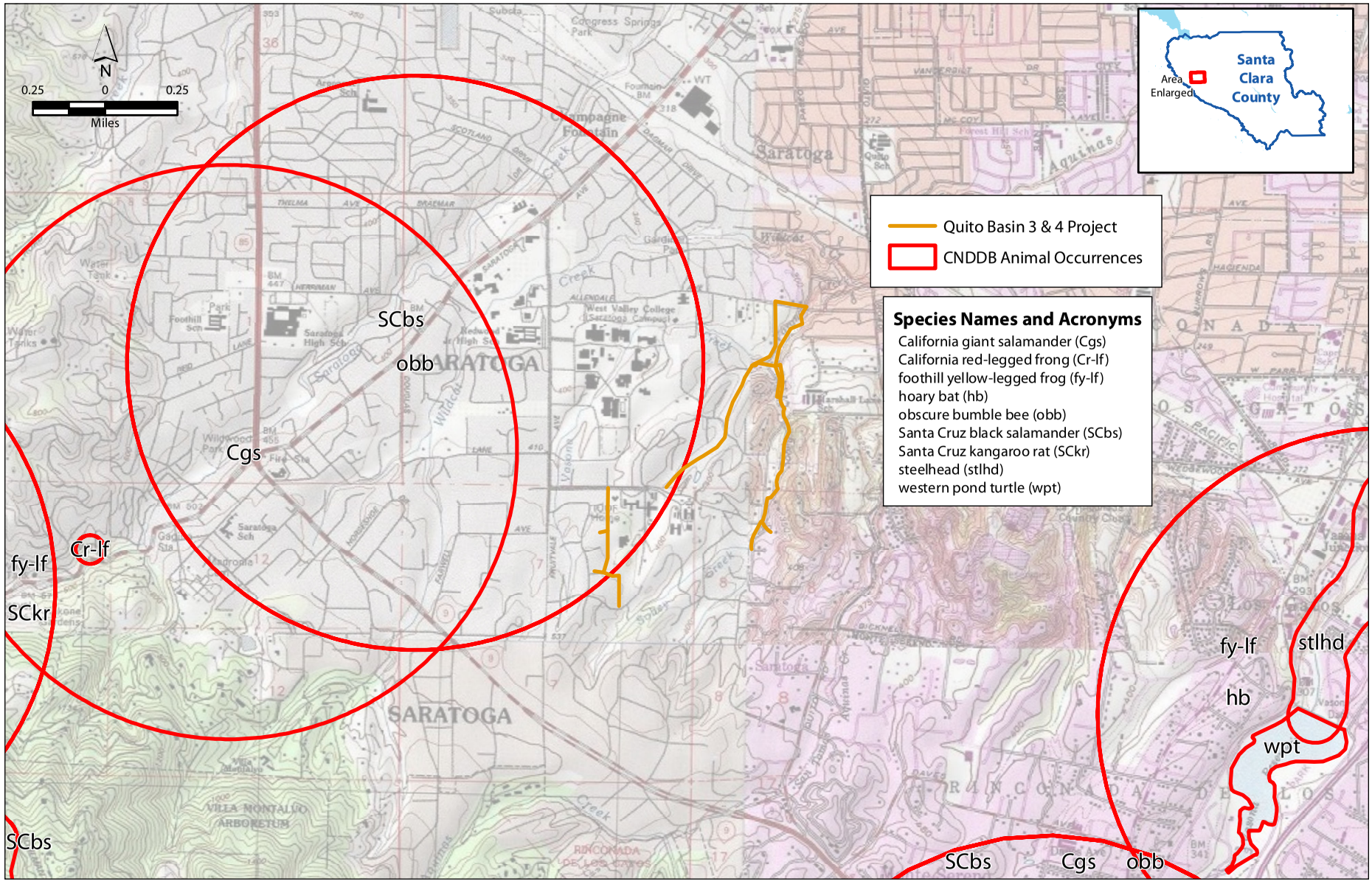
Similarly, potential habitat for most of the special-status animal species is also absent along the alignment segments. There remains a low possibility that one or more raptor species could nest in the mature trees along the creek corridors. These include: Cooper's hawk (*Accipiter cooperi*) and white-tailed kite (*Elanus leuocurus*), together with more common raptors such as red-tailed hawk, great horned owl, and American kestrel, all of which are protected by the Migratory Bird Treaty Act and State Fish and Game Code when their nests are in active use. No evidence of nesting by raptors or other bird species was observed in the immediate vicinity of the sewer alignments during the field reconnaissance surveys, but new nests could be established in the future before construction is initiated.

In theory, there is a remote possibility that the San Tomas Aquino Creek watershed could provide marginally suitable dispersal habitat for two special-status species; the federally-threatened California red-legged frog (*Rana aurora draytonii*) and western pond turtle (*Actinemys marmorata*), which has no formal listing under the Endangered Species Acts but is considered a California Species of Special Concern (SSC) by the CDFW. No protocol surveys were conducted for California red-legged frog given the large Project area and limited disturbance associated with the proposed Project, but neither of these species was detected during the field reconnaissance surveys. There are no CNDDB records for any occurrences of either of these species within the San Tomas Aquino Creek watershed. Both species are typically associated with freshwater ponds and pools in riparian corridors with emergent vegetation and protective cover, which is absent from the entire reach in the Project area. The closest known occurrence of California red-legged frog is over three miles west in a completely different watershed, separated from the Project area by development and unsuitable habitat. The closest known occurrence of western pond turtle is approximately four miles to the east along Los Gatos Creek.



Source: Environmental Collaborative, October, 2020

Figure 6. Special-Status Plants



Source: Environmental Collaborative, October, 2020

Figure 7. Special-Status Animals

Table 1. Special-Status Species That May Occur In The Project Area

Species	Fed/State/CNPS [1] Status	General Habitat	Potential for Species to Occur [2]
Accipiter cooperi Cooper's hawk	--/Nests/--	Nests in densely canopied trees from foothill oak woodlands up to ponderosa pine forests. Nesting usually occurs in a deciduous tree near open water or riparian vegetation.	Moderate. Suitable habitat for this species occurs in riparian woodlands through the Project area.
Actinemys marmorata western pond turtle	--/SSC/--	Found in perennial water bodies, including streams with open banks for basking and sandy soils for laying eggs.	Low. The Project alignment crosses Sobey and Vasona Creeks that contains moderately suitable habitat, although important pool refugia is generally absent.
Antrozous pallidus pallid bat	--/SSC/--	Broadly distributed in California from sea level to over 6,000 feet. Roosts in caves, buildings, rock crevices, and tree hollows. Overwinters in summer habitats at lower elevations.	Unlikely. Riparian woodland in Project area may be suitable for foraging by this species.
Asio flammius long-eared owl	--/Nests/--	Nests and forages in densely vegetated grasslands and emergent wetlands with abundant prey.	Unlikely. Project area provides limited nesting and foraging habitat.
Chorizanthe robusta var. *robusia* robust spineflower	FE/--/1B.1	Maritime chaparral, cismontane woodland, coastal dunes, and coastal scrub. Restricted to sandy or gravelly substrates. 3 to 300 meters in elevation.	Unlikely. Suitable habitat for this species is generally absent.
Clarkia concinna ssp. Automixs Santa Clara red ribbons	--/--/4.3	Growing on steep north-facing slope under black oak forest.	Unlikely. Project area does not include steep, north-facing slopes.
Dipodomys venustus venustus Santa Cruz kangaroo rat	--/--/--	The geographic range of Dipodomys venustus venustus extends from the Santa Cruz Mountains eastward to Mount Hamilton in the Diablo Range, and southward to Fremont Peak in the northern end of the Gabillan Range.	Unlikely. The Project area contains loamy soil substrates and therefore suitable habitat may be present, but outside the general range and in a relatively highly developed area.
Elanus leucurus white-tailed kite	--/CFP, Nests/--	Year-round resident. Nests or roosts in dense, broadleafed deciduous trees. Forages in herbaceous lowlands with variable tree growth and dense populations of voles.	Low. Suitable nesting habitat for this species occurs throughout the Project area.
Hoita strobilina Loma Prieta hoita	--/--/1B.1	Chaparral, cismontane woodland, and riparian.	Unlikely. Suitable habitat for this species may occur in riparian areas.

Table 1. Special-Status Species That May Occur In The Project Area

Species	Fed/State/CNPS [1] Status	General Habitat	Potential for Species to Occur [2]
Lasiurus cinereus hoary bat	--/--/--	Solitary foliage-roosting species. Winters along the coast and in southern California; breeds inland and north of wintering range. Breeding habitats include all woodlands and forests with medium- to large-size trees and dense foliage.	Unlikely. Riparian habitat and large-diameter shade trees may provide suitable habitat for roosting.
Malacothamnus arcuatus Arcuate bush mallow	--/--/1B.2	Occurs in chaparral habitat.	Unlikely. No suitable habitat in Project area.
Monardella villosa ssp. *giobosa* robust monardelia	--/--/1B.2	Opening in broadleafed upland forest and chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland. 100 to 915 meters in elevation.	Unlikely. Suitable habitat for this species is generally absent within the Project area.
Monolopia gracilens Woodland woollythreads	--/--/1B.2	Grassland, chaparral, woodland, and other habitat, often on serpentine soils.	Unlikely. Suitable habitat for this species is generally absent within Project Area.
Neotoma fuscipes annectens *San Francisco dusky-footed woodrat*	--/SSC/--	Species is found in oak woodlands and chaparral throughout the Coast Ranges, from Central California into Oregon. The San Francisco subspecies is found along the Peninsula and the Santa Cruz Mountains and foothills.	High Potential. Known from the woodlands along the tributary to Vasona Creek near Crossing 2
Oncorhynchus mykiss South Central California steelhead	FT/--/--	Local waterways and associated perennial tributaries.	Unlikely. This species was sighted in the San Lorenzo watershed, west of the drainage divide but downstream barriers preclude use of upper San Tomas Aquino watershed.
Pandion haliaetus osprey	--/Nests/--	Ocean shore, bays, freshwater lakes, and larger streams. Nests in treetops within 15 miles of fish-producing body of water.	Unlikely. Suitable foraging and nesting habitat is absent in the Project area.
Plagiobothrys glaber hairless popcorn flower	--/--/1A	Meadows and seeps (alkaline), and coastal salt marshes and swamps. 15 to 180 meters in elevation.	Unlikely. No suitable habitat is situated along the Project alignment. This species is presumed extirpated in the Project vicinity.
Rana aurora draytonii California red-legged frog	FT/--/--	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation (may disperse far during and after periods of rain). Requires 11–20 weeks of permanent water for larval development.	Unlikely. Although there are multiple recorded occurrences of CRLF in the CNDDB within a 5-mile radius of the study area, the potential aquatic habitat that exists is limited in its suitability due to absence of deep pools and refugia.

Table 1. Special-Status Species That May Occur In The Project Area

Species	Fed/State/CNPS [1] Status	General Habitat	Potential for Species to Occur [2]
Rana boylii foothill yellow-legged frog	--/CE/SSC	Lowlands and foothills in perennial streams with cobble bed and foraging substrate.	Unlikely. Suitable perennial aquatic habitat is absent in Project vicinity.
Streptanthus albidus ssp. *albidus* Metcalf Canyon jewel flower	FE/--/1B.1	Valley and foothill grassland in serpentinite soils. 45 to 800 meters in elevation.	Unlikely. The Project area does not include montane hardwood or serpentine soils within the immediate vicinity.
Streptanthus albidus ssp. *peremoenus* most beautiful jewel flower	--/--/1B.2	Chaparral cismontane woodland, and valley and foothill grassland. Restricted to serpentinite substrates. 94 to 1,000 meters in elevation.	Unlikely. No suitable serpentine grassland habitat is present within the Project area.
Trimerotropis infantilis Zayante band-winged grasshopper	FE/--/--	Open sandy areas with spare, low annual and perennial herbs on high ridges with sparse ponderosa pine.	Unlikely. No suitable habitat is located within the Project area.
Tropidocarpum hydrophilum saline clover	--/--/1B.2	Valley grassland.	Unlikely. No suitable grassland habitat is located within the Project area.

Sources: CNDDB (2013) and CNPS (2013).

[1] STATUS CODES

Federal

FE = Endangered
FT = Threatened
FC = Candidate
Nests = Active nests protected under Migratory Bird Treaty Act and State Fish and Game Code

State

CE = Endangered
CT = Threatened
CFP = Fully Protected
CSC = (CA) Department of Fish and Game Special Concern species

California Native Plant Society

Rank 1B = Plants rare, threatened, or endangered in California and elsewhere
Rank 2 = Plants rare, threatened, or endangered in California, but more common elsewhere
Rank 3 = Plants about which we need more information – a review list
Rank 4 = Plants of limited distribution – a watch list

[2] The "Potential for Occurrence" category is defined as follows:

Unlikely: The Project area and/or immediate vicinity do not provide suitable habitat for a species. Project area is outside of the species known range.

Low Potential: The Project area and/or immediate vicinity provides only limited habitat for a species. The known range for a particulate species may be outside of the Project area.

Medium Potential: The Project area and/or immediate vicinity provide suitable habitat for a species, although there are no known sightings in the area.

High Potential: The Project area and/or immediate vicinity provide ideal habitat conditions for a species and/or the species is known to occur in the area.

Nests characteristic of San Francisco dusky-footed woodrat were observed along one segment of the Vasona Creek tributary upstream of CC 2 (see Figure 5). This species has no legal protective status under the ESAs but is recognized as an SSC by the CDFW. It is found in woodland and scrub habitats, and feeds primarily on nuts, fruits, fungi, foliage, and forbs. It builds large terrestrial stick nests that range from 2 to 5 feet in height and can be up to 8 feet in basal diameter. These nests are typically placed on the ground or against a log or tree and are often within dense brush. No nests were observed in the immediate vicinity of the manhole where construction access will be necessary, or along other segments of the sewer lines in the Project area.

It should be noted that a number of special-status animal species are known from the San Mateo Peninsula, which are typically associated with coastal salt marsh habitat and adjacent uplands along the bay and other specific habitat types not found in the Project area. These include: salt-marsh harvest mouse (*Reithrodontomys raviventris*), California clapper rail (*Rallus longirostris obsoletus*), California black rail (*Laterallus jamaicensis cotuniculus*), California least tern (*Sterna antillarum browni*), western snowy plover (*Charadrius alexandrinus nivosus*), and saltmarsh common yellowthroat (*Geothlypis trichas sinuosa*). Similarly, a number of invertebrate species known from the San Mateo Peninsula are not suspected to occur in the Project area due to lack of larval host plant species or suitable habitat. These include Myrtle's silverspot (*Speyeria zerene myrtleae*), bay checkerspot butterfly (*Euphydryas editha bayensis*), monarch butterfly (*Danaus plexippus*), Edgewood blind harvestman (*Calicina minor*), and Richsecker's water scavenger beetle (*Hydrochara rickseckeri*).

Wetlands. A preliminary wetland assessment of the Project area was conducted during the field reconnaissance surveys. The Sobey Creek and Vasona Creek channels through the Project area generally do not support any wetland vegetation, but would be considered jurisdictional unvegetated "other waters" by the Corps below the Ordinary High Water Mark (OHWM) and would fall under the jurisdiction of the CDFW and RWQCB within the bank and bed of the channel and to the edge of riparian vegetation when present. A Streambed Alteration Agreement would be required from the CDFW for improvements to the existing sewer lines beneath the bed and bank of the creek channels, including proposed pipe bursting under the channel. A Nationwide Authorization would only be required from the Corps if work was to occur within the active channel below the Ordinary High Water Mark. Water quality certification would also be required by the RWQCB if a Corps authorization is necessary, otherwise the WVSD would have to enroll under and comply with the terms of Water Quality Order No. 2004-004 DWQ.

IMPACT ANALYSIS

Control Measures Incorporated by WVSD

D1. Comply with the encroachment permit and tree preservation requirements of the City of Saratoga. These requirements will address the following:

   a. Tree removal, pruning, and cutting of roots, if necessary.

   b. Trenching within the drip line of any tree.

c. Backfilling of open trenches.

d. Regulation of work activities if tree preservation measures are not being carried out or damage to trees is occurring.

e. Involvement of a City horticultural consultant and additional tree preservation measures as necessary.

D2. Provide suitable protection to all landscaped areas or tree cover in the immediate vicinity of construction activities to prevent unnecessary damage or injury.

D3. If vegetation or hardscape areas are damaged or removed because of Contractor's operations, they will be restored or replaced under the direction of a licensed landscape contractor to as nearly the original condition and location as is reasonably possible, to the WVSD's satisfaction. For those areas, photographic documentation of pre-project conditions shall be provided to WVSD.

D4. Obtain appropriate authorizations, if necessary, from the CDFW, Corps, and RWQCB for all in- or near-channel activities, and all conditions required as part of any required agency authorization shall be implemented and adhered to as part of the Project. If necessary, where in-channel modifications are required a wetland delineation shall be prepared and verified by the Corps to confirm the extent of any jurisdictional waters in the Project area. Improvements shall be designed to minimize potential impacts to the extent feasible with compensatory mitigation provided to return areas of in-channel or near-channel disturbance to preconstruction conditions. The Contractor shall have copies of all agency authorizations available on site and shall comply with all conditions required by jurisdictional agencies. Construction near creek channels shall preferably occur during the dry season (July 15 to October 15) to minimize disturbance and potential for indirect effects. If any reach of creeks with surface water require in-channel modifications, they shall be dewatered to prevent disturbed substrate from entering the surface waters of the creek. BMPs shall be implemented as part of the Project, which would ensure that the potential for any downgradient sedimentation impacts are adequately controlled.

Significance Criteria

RESOURCE CATEGORY / SIGNIFICANCE CRITERIA	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
D. <u>BIOLOGICAL RESOURCES</u>						
Would the Project:						
1) 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 & Game or U.S. Fish and Wildlife Services?	☐	☒	☐	☐	☐	10, 13
2) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐	☐	10, 13
3) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐	☐	10, 13
4) 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?	☐	☐	☒	☐	☐	10
5) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐	☐	10, 14
6) Conflict with provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒	☐	10

No Impacts: Criteria D6.

The proposed project would not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved conservation plan. No such conservation plans have been adopted encompassing the Project vicinity, and no impacts are therefore anticipated.

Less-Than-Significant Impacts: Criteria D2, D4 and D5

Sensitive Natural Communities: Criterion D2. The Project is not expected to have any significant adverse impacts on sensitive natural communities. Areas of well-developed riparian woodland along Sobey Creek and Vasona Creek would be considered a sensitive natural community type and regulated by the CDFW, but no tree removal or other significant disturbance to existing vegetative cover is proposed as part of the Project, and potential impacts would be considered less than significant. All of the proposed creek undercrossings would be installed through pipe bursting below the channel bed, entering through existing manhole openings. Containment would be provided to avoid disturbance to any portions of the channel with surface water and to prevent removal of any mature trees.

Wildlife Movement Opportunities: Criterion D4. The Project is not expected to have any significant adverse impacts on wildlife habitat and movement opportunities. Most construction is proposed within existing paved roadways, which have no wildlife habitat value. For segments along or crossing under the Sobey Creek and Vasona Creek channels, construction activities could temporarily disrupt wildlife activity in the immediate vicinity, but this would be short-term in nature and restricted to daylight hours. Larger terrestrial species typically utilize features like the creek corridor at night when encounters with humans and pets would be less likely. No riparian vegetation would be lost, and the creek corridors would continue to be accessible to terrestrial and aquatic wildlife, and potential impacts are considered to be less than significant.

Conformance with Local Plans and Policies: Criterion D5. In general, the proposed Project would comply with the relevant goals and policies of the Saratoga General Plan. Where there remains a potential for conflicts, compliance with the Project controls and mitigation measures recommended below would ensure conformance. These include minimizing disturbance to the Sobey Creek and Vasona Creek corridors and avoiding special-status species. No trees are proposed for removal as part of the project, but if avoidance is determined to be infeasible, Project Measure D1 would ensure compliance with the respective tree protection ordinances of local agencies. Potential conflicts would be reduced to less-than-significant levels.

Less-Than-Significant Impacts with Mitigation Incorporated: Criteria D1, D3

Special-Status Species: Criterion D1. In general, no significant adverse impacts on special-status species are anticipated. Suitable habitat for special-status plant species and most special-status animal species is absent along most of the Project alignments. No special-status plant species are suspected to occur within the limits of proposed construction due to the extent of past disturbance, and no impacts are anticipated.

A number of special-status bird species also have varying potential for occasionally foraging in the remaining woodlands in the vicinity of proposed construction, including Cooper's hawk, white-tailed kite, and other raptors. Most of these have no formal listing status under the state or federal ESAs but are recognized as SSC species by the CDFW. Nests in active use are protected under the federal Migratory Bird Treaty Act, and raptor nests are further protected under Section 3503.5 of the California Fish and Game Code when in active use. No evidence of any bird nesting was observed during the field reconnaissance surveys, including stick nests of raptors. However, new nests could be established before construction is initiated. Preconstruction surveys, as recommended below, would ensure that potential adverse impacts on nesting raptors and other birds are avoided if construction were initiated during the nesting season (typically March 1 through August 31) and new nests have been established in the vicinity of proposed improvements.

Nests of San Francisco dusky-footed woodrat are present upstream of CC 2 (see Figure 5). These are located a considerable distance from the manhole where construction access would be required for the crossing. This species is largely nocturnal, and as long as nests are avoided, no adverse impacts are anticipated. However, if construction access requires disturbance or relocation of one or more existing nests, this could result in inadvertent take of individual woodrat unless careful controls are exercised under the direction of a qualified biologist. These controls would be addressed as part of preconstruction surveys and nest avoidance measures, as recommended below.

The potential for adverse impacts on other special-status animal species is also considered very remote or unlikely. No trees would be removed as part of the project, and no adverse impacts on roosting habitat for special-status bat species is anticipated, in the remote instance that any individuals were present in trees along the creek corridor. Construction activity in the immediate vicinity of natural creek channels (CC 1-4, 6, 8, 9, and 11) have a remote potential to result in harassment or inadvertent take of California red-legged frog and/or western pond turtle in the unlikely instance that they were present with the construction zone. CC 5, 7 and 10 would be located within existing roads and paved driveways where no potential for occurrence of these aquatic-dependent special-status species is anticipated, but construction practices must be controlled to prevent disturbance in nearby open creek segments. Preconstruction surveys and construction zone exclusion practices would serve to avoid potential take of these two species in the remote instance that these species were present or were to disperse along the creek corridors in the Project reach in the future.

Implementation of these mitigation measures recommended below would serve to adequately avoid any inadvertent take of these special-status species, areas disturbed during construction would be restored to existing conditions, and no habitat would be lost for any special-status species as a result of the short-term construction disturbance associated with the Project. With implementation of the preconstruction and avoidance measures below, potential adverse impacts on special-status species would be mitigated to less-than-significant level.

Wetlands and Other Waters: Criterion D3. Potential impacts on jurisdictional wetlands and other waters are generally considered less than significant. All the undercrossings of the Sobey Creek and Vasona Creek channels would be accomplished by pipe bursting or at existing bridges

or culverts, and no direct impacts to the active creek channel are anticipated. If disturbance within the bank or bed of this crossing is required, installation of a cofferdam system and dewatering of the construction zone would be necessary during construction.

Compliance with Control Measure D4 would ensure that appropriate authorizations are obtained from regulatory agencies, and that any conditions imposed as part of the agency agreements are implemented as part of the project to minimize and mitigate any potential impacts of the Project on jurisdictional waters to a level of less-than-significant. As the Project is currently proposed, no authorization would be required from the Corps if work below the OHWM is limited to pipe bursting below the creek beds and no direct disturbance to the channel is anticipated. A Streambed Alteration Agreement would be required from the CDFW for the creek undercrossings and construction access within areas of riparian cover. Water quality certification would also be required by the RWQCB if a Corps authorization is necessary, otherwise the WVSD would have to enroll under and comply with the terms of Water Quality Order No. 2004-004 DWQ.

Adequate protections would be necessary and implemented as part of the Project to prevent the secondary effects of sedimentation as a result of construction-related disturbance. Construction would most likely occur during the dry season when flows are lowest or absent in the undercrossing locations. No in-channel construction is currently proposed, and construction would be limited to pipe bursting at several creek crossing locations. Each of these undercrossing locations has been reviewed by the Project engineers and would reportedly have sufficient separation between the modified sewer line and the bed of the creek at the crossing location that uplift or risk of future incision of the channel should not be a concern or create problems that would require future modifications to the creek bed or bank to protect the sewer line. Open cut trenching or other direct modification to the bed or bank is anticipated at any of the undercrossing locations, and the need for dewatering is currently not anticipated. Best Management Practices would be implemented as part of the Project, which would ensure that the potential for any downgradient sedimentation impacts are adequately controlled. If unanticipated challenges required disturbance to the creek bed or bank at any location, that reach would be appropriately dewatered and the area disturbed by the Project would be reconstructed to existing conditions following installation of the replacement line.

Mitigation Measures

The following measures are recommended to mitigate any potential adverse impacts on jurisdictional waters, tree resources, and special-status species and their habitat in the remote instance they are present or disperse into the project construction zone. They would serve to mitigate potential adverse impacts to a less-than-significant level.

> **Mitigation Measure BIO-1**: Disturbance to the bed and banks of Sobey Creek and Vasona Creek shall be minimized, and all areas disturbed as part of construction shall be restored to existing conditions. All native tree trunks within 40 feet of construction activities shall be flagged in the field by a qualified biologist prior to initiation of any construction, and temporary construction fencing shall be installed around their perimeter to prevent damage from equipment operation. Construction personnel shall be instructed

that all disturbance (hand or equipment excavation, pruning, equipment storage, etc.) which could damage trees to be retained shall be avoided.

Mitigation Measure BIO-2: A qualified biologist shall be retained to oversee construction and ensure that no inadvertent take of California red-legged frog or western pond turtle occurs as a result of short-term disturbance associated with the Sobey Creek or Vasona Creek crossings. This shall include the following provisions:

a. Prior to any grading or grubbing at creek crossings, the qualified biologist shall conduct a preconstruction survey to confirm absence of any California red-legged frog or western pond turtle in the vicinity. In the remote instance that any California red-legged frog individuals are encountered, the USFWS shall be consulted to determine appropriate avoidance measures prior to initiation of any construction activities. Any western pond turtle encountered shall be relocated to secure pool habitat located nearby selected by the qualified biologist. Silt fencing shall be installed as exclusionary fencing if any California red-legged frogs are encountered to ensure individuals can not reenter the construction zone, and the exclusionary fencing shall be monitored daily to make sure it is intact and prevent access. This may include extending the construction fencing along the outer edge of the creek right-of-way upstream and downstream of the construction reach to prevent individuals from moving around the silt fencing.

b. The qualified biologist shall be present to oversee installation of any required coffer dam and shall periodically inspect this system while in use to ensure no fish or other aquatic life are adversely affected. Screening shall be used at the entrance to the diversion pipe or dewatering pumps to prevent animals from becoming entrained in the pump. Adjustments shall be made as necessary to minimize disturbance to aquatic life during the short-term use of the coffer dam system.

c. Silt fencing shall be installed at the downstream and upstream ends of the construction zone, buried a minimum of six inches, to serve as a barrier to keep ground motile wildlife from entering the construction zone, and to separate construction activities from the active channel. The wildlife exclusionary fencing material and design shall meet with latest standards called for by the USFWS and CDFW. The wildlife exclusion fencing shall remain in place during the entire construction period.

d. The qualified biologist shall oversee initial vegetation clearing and installation of the wildlife exclusionary fencing where construction is to take place in natural areas within 100 feet of creek channels to prevent California red-legged frog from entering the construction area. Vegetation clearing shall be performed by hand and all slash shall be removed from the construction zone to remove any protective cover that could attract wildlife. Operation of grading equipment shall not occur until vegetative cover has been completely removed from the excluded construction zone and the qualified biologist has performed a pregrading survey to confirm absence of any California red-legged frog in the vicinity of construction and areas to be

disturbed.

e. Construction workers shall be trained by the qualified biologist regarding the potential presence of California red-legged frog and western pond turtle, that these species are to be avoided, that the foreman must be notified if they are seen, and that construction shall be halted until appropriate measures have been taken. For California red-legged frog, work shall be halted until authorization to proceed is obtained from the USFWS. Harassment of California red-legged frog is a violation of federal law.

f. During the construction phase of the Project, a qualified biologist or an on-site monitor (such as the construction foreman trained by the qualified biologist) shall check the site in the morning and in the evening of construction activities for the presence of California red-legged frog and western pond turtle. This includes checking holes, under vehicles and under boards left on the ground. If any California red-legged frog are found, construction shall be halted, and the monitor shall immediately notify the qualified biologist in charge and the USFWS. Construction shall not proceed until adequate measures are taken to prevent dispersal of any individuals into the construction zone, as directed by the USFWS. Subsequent recommendations made by the USFWS shall be followed.

g. Use of monofilament plastic for erosion control or other practices shall be prohibited as part of construction to prevent possible entrainment of wildlife.

h. All food waste shall be removed daily from the site to avoid attracting predators.

i. No one shall handle or otherwise harass any individual California red-legged frogs encountered during construction, with the exception of a Service-approved biologist. The qualified biologist in charge shall train the on-site monitor in how to identify California red-legged frog. The qualified biologist in charge shall visit the site at least once a week during construction and confer with the trained on-site monitor.

Mitigation Measure BIO-3: Appropriate measures shall be taken to prevent inadvertent loss of young birds during the nesting season. This shall be accomplished according to the following procedures:

a. If construction activities and any required tree removal occur during the breeding season between March 1 and August 31, a qualified biologist shall be required to survey areas within 100 feet of the Project alignment for nesting raptors and other native birds within 30 days prior to any ground-disturbing activity or tree removal, if required.

b. If any active nests are detected, CDFW shall be notified of the survey results prior to any ground disturbing activity and an appropriate buffer established around the nest location within which construction shall be restricted. The buffer zone shall be developed by the qualified biologist based on input from CDFW and specific

conditions associated with the nest. Typically, a construction setback of at least 50 feet for passerines and 100 feet for raptors shall be provided.

c. Depending on conditions specific to each nest, and the relative location and timing of construction activities, it may be feasible for construction to occur as planned within the buffer without impacting the nest(s). In this case (to be determined in consultation with CDFW), the nest(s) shall be monitored by the qualified biologist during construction within the buffer. If, in the professional opinion of the monitor, the project would impact the nest, the biologist shall immediately inform the construction manager and CDFW. The construction manager shall immediately stop construction activities within the buffer until either the young have successfully fledged, and the nest is no longer active, or the project receives written approval to proceed from CDFW.

d. If construction activities and any required tree removal and initial grubbing occur during the non-breeding season (September 1 through February 28), no preconstruction surveys would be required.

Mitigation Measure BIO-4: Adequate measures shall be taken to avoid inadvertent take of San Francisco dusky-footed woodrats. This shall be accomplished by taking the following steps:

a. A qualified biologist shall be retained to conduct a preconstruction survey for San Francisco dusky-footed woodrats to determine whether any stick nests in the vicinity of proposed vegetation removal and construction. The survey shall be performed within 30 days prior to vegetation removal and construction access.

b. Nests in the vicinity of proposed vegetation removal and construction access shall be flagged and avoided to the extent feasible.

c. If any nests are encountered within the limits of proposed construction access that cannot be avoided, a trapping and relocation effort shall be conducted outside the breeding season (March 1 through August 31) to ensure any young are not inadvertently lost due to the destruction of the protective nest.

d. Any nests within the construction zone shall be relocated to locations undisturbed by construction access and outside the wildlife exclusion fencing, and individual woodrats released into their relocated nests. The trapping and relocation effort shall preferably be conducted within 7 days prior to grubbing and vegetation removal to prevent individual woodrats from moving back into the construction zone.

E. CULTURAL RESOURCES

SETTING

A Limited Phase I Cultural Resources Evaluation for the proposed Project was prepared by Archeo-Tec, Consulting Archaeologists in 2013 and updated in 2020.[15] The evaluation, which addressed archaeological and historic resources, included an archival literature review and consultation with the Native American Heritage Commission and Native American individuals/organizations in Santa Clara County that may have knowledge of cultural resources in the Project area. One archaeological site was found within 1/3-mile of the central-eastern border of the Project area. This site contains a historical component (a farmhouse and barn) and a prehistoric component consisting of a midden containing fire-cracked rock and other lithics. The full report is included in Appendix B.

IMPACT ANALYSIS

Control Measures Incorporated by WVSD

None.

Significance Criteria

RESOURCE CATEGORY / SIGNIFICANCE CRITERIA	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
E. CULTURAL RESOURCES						
Would the Project:						
1) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐	☐	10, 15
2) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐	☐	10, 15
3) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐	☐	10, 15

Less-Than-Significant Impacts with Mitigation Incorporated: Criteria E1–E3

The cultural resource evaluation considered the sensitivity of the Project area as well as the excavation requirements of each construction method and how much previously undisturbed soil would be disturbed. The evaluation considers the Project alignment and its general vicinity to be moderately sensitive for both prehistoric and historic sites. It was concluded that there will be a remote chance that disturbed or redeposited prehistoric archaeological sites could be found within the limited areas of open cut excavation. Accordingly, as discussed below, mitigation measures are necessary to reduce potential impacts to less-than-significant levels.

Mitigation Measures

The following mitigation measures shall be included in the Project to reduce potential impacts to less than significant levels:

Mitigation Measure ARCH-1. If excavations supporting pipeline rehabilitation occur outside the alignments in areas of potentially undisturbed soil, working crews shall be given a training session by a qualified archaeologist on identification of archaeological materials, and an "alert sheet" shall be prepared and distributed to the crews prior to the start of work.

Mitigation Measure ARCH-2. Should archaeological resources (i.e. shell deposits, modified bone and/or lithics or human remains) be encountered at any point during Project excavation activities, all activity in the area of the discovery shall cease until WVSD retains the services of a qualified archaeological consultant to examine the findings that have been made, assess their significance, and offer proposals for any exploratory procedures deemed appropriate to either further investigate and/or mitigate any adverse impacts.

Mitigation Measure ARCH-3: Should human remains be encountered during excavation activities in the Project area, the following procedures shall be followed:

a. Per the stipulations of the California Health and Safety Code Section 7050.5(b), the Santa Clara County Medical Examiner–Coroner's Office will be contacted immediately; this will occur whether or not a Most Likely Descendant (MLD) has already been appointed.

b. The Medical Examiner–Coroner's Office has two working days in which to examine the identified remains. If the Coroner determines that the remains are Native American, then—if an MLD had not yet been appointed—the Office will notify the Native American Heritage Commission (NAHC) within 24 hours.

c. Following receipt of the Medical Examiner–Coroner's Office notice, the NAHC will contact an MLD. The MLD will then have 48 hours in which to make recommendations to WVSD and the consulting archaeologist regarding the treatment and/or re-interment of the human remains and any associated grave goods.

d. Appropriate treatment and disposition of Native American human remains and associated grave goods will be collaboratively determined in consultation between the appointed MLD, the consulting archaeologist, and the landowner or authorized representative. The treatment of human remains may potentially include the preservation, excavation, analysis, and/or reburial of those remains and any associated artifacts.

e. If the remains are determined not to be Native American, the Medical Examiner–Coroner, archaeological research team, and WVSD will collaboratively develop a procedure for the appropriate study, documentation, and ultimate disposition of the historic human remains.

F. ENERGY

IMPACT ANALYSIS

Significance Criteria

RESOURCE CATEGORY / SIGNIFICANCE CRITERIA	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
F. ENERGY						
Would the project:						
1) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	☒	☐	10
2) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒	☐	10

No Impact: Criteria F1, F2

The Project is necessary to rehabilitate over 14,000 lineal feet of sewer pipeline which have exceeded their useful lives. WVSD will use CIPP and pipe bursting to rehabilitate most of the sewer lines. These construction techniques are trenchless technologies which will use less energy than the alternative of open cut excavation. Energy requirements for the Project do not represent wasteful, inefficient, or unnecessary consumption of energy and would not conflict with state or local energy plans.

G. GEOLOGY AND SOILS

SETTING

A Geotechnical Investigation has been completed for Q3 and Q4 by Cotton Shires and Associates, Inc.[7] This investigation evaluated surface and subsurface conditions; developed conclusions and recommendations regarding geotechnical hazards, groundwater conditions, subsurface earth material, and a variety of other geotechnical considerations. The Geotechnical Investigation for Q3 and Q4 encountered a variety of conditions which are not "fatal flaws" but do present potentially challenging conditions for sewer rehabilitation.

Geology and Soils

The Project area is located at the base of the Santa Cruz Mountains near the southern end of the Santa Clara Valley. Sedimentary bedrock materials of the Santa Clara Formation underlie the area. Alluvial deposits derived from the Santa Cruz Mountains are mapped in the Sobey and Vasona Creek channels and other of the more pronounced drainage channels. During the Geotechnical Investigation, a series of exploratory borings revealed the alluvium to consist mostly of loose to very dense sands and gravels, and soft to very stiff clays.

Faults and Seismicity

The Project area is in an area of high seismicity. The nearest and controlling faults are the Monte Vista fault located about 1 mile to the northwest and the San Andreas fault located about 4 miles southwest of Project area. Strands of the Berrocal/Shannon faults have been projected through the Project area and to the south. The City of Saratoga is not affected by Earthquake Fault Zones of known active faults officially delineated by the State Geologist pursuant to the Alquist-Priolo Earthquake Fault Zone Act.[9] Seismic ground shaking and the potential for surface faulting and ground rupture in the area is considered to be moderate to high.

Groundwater Conditions

The Geotechnical Investigation for Q3 and Q4 included 10 exploratory borings drilled to depths of 3 to 21 feet.[7] Free groundwater was encountered in 4 of the borings at depths of 1.6 to 17.5 feet below ground surface. During the supplemental geotechnical investigation in 2019, groundwater was encountered in five additional borings near the intersection of Chester and Allendale at 18 to 30 feet below ground surface. It is noted that fluctuations in the groundwater level could occur from variations in rainfall, flooding, and other factors, and groundwater levels may be different at other times and locations. High groundwater conditions, particularly near the creeks and associated drainage channels, and the need for dewatering during excavation should be anticipated.

Soil Liquefaction

Liquefaction is a phenomenon in which saturated (submerged), cohesionless soil can be subject to a temporary loss of strength because of the buildup of pore water pressure, especially during cyclic loadings such as those induced by earthquakes. Soil most susceptible to liquefaction is loose, clean, saturated, uniformly graded, fine-grained sand. During the loss of strength, the soil develops mobility sufficient to permit both horizontal and vertical movements which could damage sewer pipelines and other improvements.

The State of California Seismic Hazard Zones maps for the San Jose West and Cupertino Quadrangles identify the areas adjacent to Sobey Creek as having a potential for liquefaction. However, based on the subsurface conditions encountered in the majority of the borings for the Geotechnical Investigation, including the depth to groundwater and the dense high clay content soils, the potential for liquefaction is generally considered to be low. An exception exists near

manhole 6-005-01 (intersection of Omega Lane and Sobey Road, see Figure 3) where subsurface conditions indicate a moderate to high potential for localized areas of liquefaction.

IMPACT ANALYSIS

Control Measure Incorporated by WVSD

G1. Include the recommendations of the Geotechnical Investigation for Q3 and Q4 into the design and construction specifications for the proposed Project.

G2. Have a geotechnical engineer review Project plans and specifications prior to construction to verify that geotechnical aspects are consistent with the intent of the recommendations included in the geotechnical investigations.

G3. Have a geotechnical engineer monitor excavation and grading activities during construction.

G4. The contractor shall submit to WVSD a copy of their construction activity permit issued by OSHA.

G5. Pursuant to the provisions in Section 6705, et seq., of the California Labor Code, contractor is required to submit, at least 10 working days in advance of excavation of any trench or trenches 5 feet or more in depth, a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or trenches. If such plan varies from the shoring system standards, the plan shall be prepared by a California registered civil or structural engineer.

G6. If dewatering is required, the contractor will control the rate and effect of the dewatering to avoid all objectionable settlement and subsidence. Where critical structures or facilities exist immediately adjacent to areas of proposed dewatering, reference points will be established and observed at frequent intervals to detect any settlement that may develop. The responsibility for conducting the dewatering operation in a manner that will protect adjacent structures and facilities rests solely with the contractor. The cost of repairing any damage to adjacent structures and restoration of facilities will be the responsibility of the contractor.

G7. Obtain encroachment permit from the City of Saratoga and SCVWD and comply with permit conditions.

G8. For work within jurisdictional areas within local water courses, obtain appropriate authorizations from the Corps, RWQCB and DFW, and comply with permit conditions.

G9. Implement temporary construction site BMPs to prevent the discharge of contaminated stormwater runoff from the job site. BMPs include, but are not limited to, the following:

a. Provide all excavated areas, including temporary excavation stockpiles, structures, and trench excavations with temporary erosion control measures. Such measures include, but are not limited to, filter fabric fences, fiber rolls, or hay bales laced to

completely circumvent the downslope side of the excavated areas or soil stockpile, and covering of the soil stockpiles

b. Inspect and maintain protected areas regularly during the course of the work.

c. Avoid placing all excavations, spills, and waste materials in areas subject to washout, flooding, or natural drainage. No sand, mud, rocks, or other construction debris shall be disposed of in the sanitary sewers, storm sewers, or waterways. The contractor shall comply with all water discharge requirements to local sanitary and storm sewers.

d. Placement of filter fabric at local storm drains and use of other appropriate BMPs.

Significance Criteria

RESOURCE CATEGORY / SIGNIFICANCE CRITERIA	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
G. <u>GEOLOGY AND SOILS</u>						
Would the Project:						
1) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:						
a) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒		☐	7, 10
b) Strong seismic ground shaking?	☐	☐	☒		☐	7, 10
c) Seismic-related ground failure, including liquefaction?	☐	☐	☒		☐	7, 10
d) Landslides?	☐	☐	☒		☐	7, 10
2) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐	☐	10
3) 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?	☐	☐	☒	☐	☐	7, 10

RESOURCE CATEGORY / SIGNIFICANCE CRITERIA	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
4) Be located on expansive soil, as defined in Table 18-I-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐	☐	10
5) 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?	☐	☐	☐	☒	☐	10
6) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐	☐	10

No Impacts: Criterion G5

Criterion G5 addresses alternative wastewater disposal systems which is not relevant to the proposed Project.

Less-Than-Significant Impacts: Criteria G1–G4, G6

Geotechnical Hazards: Criterion G1, G3, G4. Criteria G1, G3, and G4 address potential geotechnical hazards associated with the Project. These hazards include seismic hazards, settlement, and the risk of landsliding.

Relative to geotechnical hazards, there are two aspects of the Project of potential impact. The first are the potential impacts associated with use of various construction techniques and the second are the potential impacts of the geologic setting on the rehabilitated pipeline. With respect to the latter, it should be noted that high density polyethylene (HDPE) pipe would be used to replace existing clay sewer lines that were originally installed in the 1950s, thereby providing a considerable margin of safety related to geotechnical hazards.

While the Project area is not within an Alquist–Priolo Earthquake Fault Zone, the Monte Vista and San Andreas faults are in close proximity to the Project area according to the Geotechnical Investigation completed for Q3 and Q4.[7] Additionally, the mapped strands of the Berrocal/Shannon faults have been projected through the Project area and to the south.

Seismically-induced ground failure mechanisms include lateral spreading, landsliding, liquefaction, lurching, and differential compaction. Lateral spreading and landsliding could potentially mobilize into Vasona Creek, Sobey Creek, and the unnamed tributary and impact sections of the sewer pipeline located adjacent to the channels. Seismically-induced landsliding could also develop on steeper slopes of the Project area, such as in the vicinity of the unnamed

tributary between Ten Acres Road and Chester Avenue, but likely would be confined to creek bank type slopes.

The potential for liquefaction in the Project area would generally be expected to be low based on the Geotechnical Investigation for Q3 and Q4. The exception would be a localized area near Omega Lane and Sobey Road where the potential would be expected to be moderate to high.

Pipe bursting would be used extensively for the proposed Project. There is a potential that pipe bursting could cause surface ground heave. This occurs when the existing pipe is located relatively close to the ground surface and the diameter of the new pipe is significantly larger than the existing pipe diameter. Soils that are most susceptible to surface ground heave include dense sands and very stiff to hard clays, while soft and loose clay and sands can typically compact and absorb the stresses induced by pipe bursting. Based on relatively thick sections of overburden (between 6 and 18 feet), the potential for surface ground heave is generally considered to be low, but any existing pipes within 4 feet of the ground surface would have a moderate to high potential.[7] Where pipelines are within 5 feet of the ground surface and overlain by dense or very stiff materials, the contractor would comply with the recommendations of the geotechnical engineer. These include monitoring the ground surface and neighboring utilities during pipe bursting and, if necessary, halting the process if effects are noticed, with implementation of further mitigation as necessary.

As shown on Figure 3, the Project does require some excavation to support the various rehabilitation construction techniques. Entry pits are necessary for pipe bursting and localized areas of open cut excavation would be completed. With about 8,700 feet of pipeline to be rehabilitated by pipe bursting, and assuming pits would be required every 400 feet, there would be a need for about 20 to 25 pits. Depths of excavation would be about 3 to 12 feet with width and length dimensions varying. The potential instability of such excavation, especially in areas near the creek that can have higher groundwater levels, is an important issue to be addressed by the geotechnical engineer and the contractor.

Control measures have been included in the Project to address geotechnical hazards. Control Measure G1 provides for incorporation of geotechnical engineering recommendations into the design and construction specifications for the Project. Control Measures G2 and G3 provide for the ongoing involvement of a geotechnical engineer as the Project proceeds. OSHA provides regulatory overview of trenching and excavations (Control Measure G4). The potential hazards of caving ground during excavation are addressed by Control Measure G5 and the need for a detailed plan of shoring, bracing, and sloping. In addition, the contractor would be required to control the rate and effect of any dewatering to avoid all objectionable settlement and subsidence (Control Measure G6). Thus, the potential impacts related to geotechnical hazards are less than significant.

Soil Erosion: Criterion G2. Criterion G2 addresses the potential for soil erosion, as well as unstable soil conditions. As shown on Figure 3, limited areas of soil excavation would be required to support pipeline rehabilitation activities. Much of the excavation would occur within WVSD easements within residential lots and local residential roadways. In some areas,

disturbance of natural ground cover would occur, and all areas would require the temporary placement of soils in stockpiles which would then be used as backfill once the rehabilitation at the given work site is completed. The potential exists that excavated soil or contaminated stormwater could leave the site and enter surface water courses or storm drains causing significant water quality impacts related to erosion and siltation.

Additional control measures have also been included in the Project to address erosion and siltation issues. Control Measure G7 requires encroachment permits be obtained from the City of Saratoga and Santa Clara Valley Water District (SCVWD), and compliance with permit conditions. Similarly, Control Measure G8 requires appropriate authorizations be obtained from the resource agencies with compliance with permit conditions for protection of water quality and biological resources. Control Measure G9 also addresses water quality and would require the contractor to implement temporary construction site BMPs for erosion control and other sources of pollutants with regular inspection and maintenance of protected areas during the course of the work. As a result, the potential impacts associated with erosion and siltation are less than significant.

Less-Than-Significant Impacts with Mitigation Incorporated: Criterion G6

Paleontological resources are the fossilized evidence of past life found in the geologic record. Because of the infrequency of fossil preservation, fossils—particularly vertebrate fossils—are considered to be nonrenewable resources. Because of their rarity and the scientific information they can provide, fossils are highly significant records of ancient life. No known significant paleontological resources are known to exist within the Project area.[14]

The Geotechnical Investigation for the Project determined that bedrock conditions associated with the presence of the Santa Clara Formation would be encountered during excavation activities in some areas.[7] The potential of encountering paleontological resources cannot be totally discounted and could result in a significant adv-erse impact. Mitigation is included below to reduce this impact to a less than significant level.

Mitigation Measures

Mitigation Measure GS1: If paleontological resources, such as fossilized bone, teeth, shell, tracks, trails, casts, molds, or impressions are discovered during excavation activities, work shall stop in that area until a qualified paleontologist can assess the significance of the find and, if necessary, develop appropriate treatment measures in consultation with WVSD.

H. GREENHOUSE GAS EMISSIONS

SETTING

GHG emissions include such chemicals as carbon dioxide, methane, and nitrous oxide. Sources of GHGs only include exhaust. Short-term construction projects are not recognized in Table 3-1 of the Air Quality Guidelines which provide land use type screening level sizes for criteria air pollutants, precursors, and GHG. The California Global Warming Solutions Act of 2006 (AB 32) requires statewide GHG emissions be reduced to 1990 levels by the year 2020. Since that time, California Air Resources Board (CARB), the California Energy Commission, the California Public Utilities Commission, and the California Building Standards Commission have all been developing regulations that will help meet the goals of AB 32. BMPs identified in the Air Quality Guidelines for reducing GHG emissions during construction include the following:

1. Use alternative-fueled (e.g., biodiesel, electric) construction vehicles/equipment of at least 15 percent of the fleet. (The proposed Project is a small-scale construction project with limited vehicle and equipment needs as discussed earlier in this IS. While the chosen contractor may have alternative-fueled vehicles and equipment, requiring 15 percent of the fleet to be alternative-fueled would have an unnecessary cost burden with no measurable benefit.)

2. Use local building materials of at least 10 percent. (It is likely all building materials will be available within 100 miles of the Project site, although some materials like the HDPE pipe may be manufactured at other locations and shipped to a local vendor.)

3. Recycle at least 50 percent of construction waste or demolition materials. (As a pipeline rehabilitation activity featuring primarily pipe bursting and CIPP with minimal open cut excavation and guided auger boring, little construction waste would be generated. Excavated native soil can be used as backfill, while the remainder can be hauled offsite for beneficial reuse. Excavated aggregate and pavement can be hauled to a local processing facility and prepared for other uses.)

IMPACT ANALYSIS

Control Measures Incorporated by WVSD

H1. Minimize equipment idling times (see Control Measure C5).

H2. Maintain and properly tune all construction equipment (see Control Measure C6).

Significance Criteria

RESOURCE CATEGORY / SIGNIFICANCE CRITERIA	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
H. GREENHOUSE GAS EMISSIONS						
Would the Project:						
1) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐	☐	10, 11
2) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐	☐	10, 11

Less-Than-Significant Impacts: Criteria H1, H2

The proposed Project would comply with relevant BMPs in the BAAQMD Air Quality Guidelines for GHG emissions. Thus, GHG emission impacts are less than significant. It should be noted that the proposed Project maximizes use of trenchless rehabilitation technologies. These technologies minimize GHG emissions by requiring less hauling of materials and associated traffic, less on-site construction equipment and operation, and pipelines can be rehabilitated more rapidly at the rate of about 400 feet per day. In addition, Control Measures H1 and H2 have been incorporated into the Project to further reduce exhaust emissions. Thus, GHG emission impacts are less than significant (Criterion H1).

Applicable plans include the California Global Warming Solutions Act of 2006 (AB 32), the subsequent 2008 Climate Change Scoping Plan, the First Update to the AB 32 Scoping Plan (2014 First Update), and the ongoing Second Update to the AB 32 Scoping Plan. Locally, the City of Saratoga will adopt its Climate Action Plan at the same time as the updated General Plan is adopted. These statewide and local plans outline policies and actions to meet specified emission targets. As discussed above, Project GHG emissions are less than significant; thus, the Project will not conflict with these plans (Criterion H2).

Mitigation Measures

None required.

I. HAZARDS AND HAZARDOUS MATERIALS

SETTING

This resource category addresses health and safety issues related to construction of the Project. Health and safety issues apply to construction workers and members of the public who would be exposed to hazardous materials and physical conditions associated with the presence of construction equipment and excavations in an area of sensitive land uses. As discussed in the Project Description, the alignment involves construction within residential areas; along Sobey Creek, Vasona Creek, and unnamed tributary; and within residential roadways. The northern segment of the Project alignment is within one quarter mile of the Marshall Lane Elementary School (Figure 3). There are a variety of state and federal regulations that apply to construction projects for protection of health and safety. WVSD also has standard specifications to address these issues based on other successfully completed projects.

The predominant land use in the Project area is residential housing. Therefore, hazardous materials currently used in the Project area by residents should be limited to common products such as fuels; household cleaning products; and landscape insecticides, herbicides, and fertilizers.

Several regulatory agency databases were consulted regarding the presence of hazardous materials release sites within the Project area, including the State Water Resources Control Board (SWRCB) Geotracker web site and the California Department of Toxic Substances Control (DTSC) Cortese List.[16, 17] No release sites are identified within the Project area. At West Valley Junior College to the west of the Project area, one leaking underground storage tank is in site assessment status, while several sites have been remediated and the cases closed.

IMPACT ANALYSIS

Control Measures Incorporated by WVSD

I1. Store and handle potential pollution-causing and hazardous materials, including but not necessarily limited to gasoline, oil and paints in accordance with all local, state, and federal requirements. All hazardous materials shall be stored and handled in strict accordance with the Material Safety Data Sheets for the products. Material Safety Data Sheets shall be submitted to WVSD prior to the delivery of materials to the Project site.

I2. Protect workers from the hazard of caving ground when excavations exceed 5 feet in depth (see Geology and Soils, Control Measure G5).

I3. Control dewatering in a manner that will protect adjacent structures and facilities (see Geology and Soils, Control Measure G6).

I4. Establish, implement, and maintain a written injury prevention program and other health and safety programs as required by OSHA and Code of Federal Regulations, Sections 1900 through 1910 and 1926. The programs will designate a safety supervisor and require a

review of construction activities prior to the start of work in the various areas to determine safety hazards and appropriate precautions to be taken.

I5. Manhole entry and/or entry to any excavation greater than 5 feet deep shall be in full compliance with the confined space entry requirements of OSHA as stipulated in the CCR, General Industrial Safety Orders, Title 8, Article 108, and additional requirements included in the Contract Documents.

I6. Furnish, erect, and maintain such fences, barricades, lights, and signs as necessary to provide site security and adequate protection to the public at all times.

I7. Cover all trenches over night between two consecutive work days with backfill material or trench covers approved by the appropriate local jurisdiction or Caltrans. All trenches shall be closed securely over weekends.

I8. Design and install all pieces of mechanical and equipment and appurtenant facilities that are separately mounted or anchored to be in conformance with all requirements of the latest edition of the Uniform Building Code.

I9. Install and maintain a fence between the contractor's work area and residential properties during non-working periods.

I10. In the event all or a part of the site is to be permanently fenced, this permanent fence or a portion thereof may be built and maintained to serve for protection of the work site.

I11. Protect temporary openings in existing fences to prevent intrusion by unauthorized persons. During night hours, weekends, holidays, and other times when no work is performed at the site, the contractor shall provide temporary closures to protect such openings. Temporary openings shall be fenced when no longer necessary.

I12. Locate all stockpiled materials and parked equipment at the job site to avoid interference with private property and to prevent hazards to the public. Locations of stockpiles, parking areas, and equipment storage must be approved by WVSD and the City of Saratoga. The contractor shall obtain property owner permission for use of storage areas and pay any costs associated with material and/or equipment storage.

I13. Prepare a traffic control plan (TCP) to assure that emergency response or emergency access within the Project subbasins are not affected (see Transportation/Traffic, Control Measure Q2).

I14. Provide 24-hour operation personnel while the bypass system is connected and in operation. During disconnect and reconnection if laterals, coordinate with property owners and provide temporary piping, pumps, and containers to accommodate flows.

I15. If hazardous environmental conditions are encountered, contractor shall notify WVSD and Construction Manager so that appropriate corrective actions can be taken. In case of an emergency, make all necessary repairs and promptly execute such work.

I16. Provide written notice to all affected residences. The notices will be provided 30 days, 7 days, and 1 day prior to start of work and will provide information on Project activities,

the rehabilitation schedule, and protocol for providing complaints relative to hazardous conditions, noise, and odor. Notices shall be subject to review and approval by WVSD.

I17. If complaints over hazardous conditions are received, identify the source, evaluate and implement available abatement measures, and notify the complainant(s) of the results.

I18. Monitor for the presence of contaminated soil and/or groundwater during the course of the work. Immediately notify the Construction Manager if any suspect materials are encountered in accordance with the Contract Documents. Implement appropriate remedial measures as identified by the Construction Manager.

Significance Criteria

RESOURCE CATEGORY / SIGNIFICANCE CRITERIA	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
I. HAZARDS AND HAZARDOUS MATERIALS						
Would the Project:						
1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐	☐	10
2) 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?	☐	☐	☐	☐	☒	10
3) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐	☐	10, 16, 17
4) 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?	☐	☐	☐	☒	☐	10
5) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?	☐	☐	☐	☒	☐	10

RESOURCE CATEGORY / SIGNIFICANCE CRITERIA	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
6) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐	☐	10
7) Expose people or structures either directly or indirectly to significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒	☐	10
8) Expose people to existing or potential safety and health hazards other than those set forth above?	☐	☐	☒	☐	☐	10

Beneficial Impacts: Criterion I2

As indicated in the Project Description, the proposed Project is a high priority sewer rehabilitation project in WVSD's service area. The existing clay sewer lines were originally installed in the 1950s and 1960s, have exceeded their useful life, allow excessive infiltration/inflow of groundwater in certain areas of the collection system, are undersized, and a high risk due to the age of the pipelines, maintenance history, and sensitivity of the area if failure were to occur. Thus, rehabilitation of these lines would be a beneficial impact by greatly reducing the risk of pipeline failure and associated risk to public health and the environment.

No Impacts: Criteria I4, I5, I7

The Project alignment is not on a site included on a list of hazardous material sites (Criterion I4); is not located near a public airport (Criterion I5); and would not expose people or structures to significant risk of loss, injury, or death involving wildland fires (Criterion I7).

Less-Than-Significant Impacts: Criteria I1, I3, I6, I8

Use of Hazardous Materials: Criterion I1, I3. The use of hazardous materials would be limited during construction activities and would include such traditional materials as gasoline, diesel, oil, paint, resin, and epoxy concrete. Control Measure I1 requires the storage and handling of these materials to be in strict accordance with the Material Safety Data Sheets for the products and adherence to all local, state, and federal requirements. The impact is less than significant.

Emergency Response Plan: Criterion I6. Criterion I6 addresses a project's interference with an adopted emergency response or evacuation plan. The streets impacted by the proposed Project are shown on Figure 3. The issue of emergency access is embodied in a TCP that complies with the requirements of local jurisdictions. A TCP addresses an extensive array of traffic flow, safety, and parking issues, which are identified in Section P, Transportation/Traffic. Emergency access would be provided at all times. Thus, the impact associated with interference with emergency access is less than significant.

Safety and Health Hazards: Criterion I8. Criterion I8 relates to other hazards not addressed by Criteria I1 through I7 and primarily related to the health and safety of workers and the public. The Project involves the use of heavy equipment and excavations of 6 to 8 feet in depth as described on Figure 3. Excavations would be within residential properties and local roadways all frequented by residents, workers, pedestrians, and bicyclists. Without suitable controls, the potential for health and safety hazards would exist.

A variety of control measures (Control Measures I2 through I18), however, have been included in the Project to address safety and health hazards. Measures include compliance with the requirements of OSHA and with all applicable local, state, and federal requirements; development and implementation of a safety program; controls over open trenches and entry pits to provide for site security and public safety; use of an approved TCP to provide for safe traffic flow and maintenance of emergency response and emergency access; and coordination with local residents along the various pipeline alignments on Project activities and procedures for receiving and responding to unsafe working conditions should any develop. Thus, potential safety and health impacts are less than significant.

Mitigation Measures

None required.

J. HYDROLOGY AND WATER QUALITY

SETTING

This section addresses hydrology and water quality. Pertinent information on surface and groundwater resources is provided below.

Regional Hydrology

The Project area is located within the San Tomas Aquino Creek Watershed Management Unit (WMU) which forms the eastern edge of the West Valley Watershed Management Area (WMA). The SCVWD is responsible for providing stream stewardship, water supply, and flood control for the WMU, the WMA, and all of Santa Clara County. A Stewardship Plan was developed for the WMU in 2006.[18] The Stewardship Plan describes shared water resources interests and provides tools for better management of complex water resource issues, including promoting coordination among flood control; water supply; water quality; stream restoration; and parks, trails, and open space projects. The plan translates the SCVWD's policies into specific goals and objectives at the watershed level.

The WMU drains about 45 square miles (Figure 8). San Tomas Aquino Creek is the principal drainage in the WMU. The creek originates in the foothills of the Santa Cruz Mountains and is about 16 miles long. It flows north and ultimately into the southern end of Guadalupe Slough and southern San Francisco Bay. In the Project area Vasona Creek, which accepts flows from Sobey Creek and two unnamed tributaries, drains to San Tomas Aquino Creek but is not a primary tributary. The Project location within the San Tomas Aquino Creek

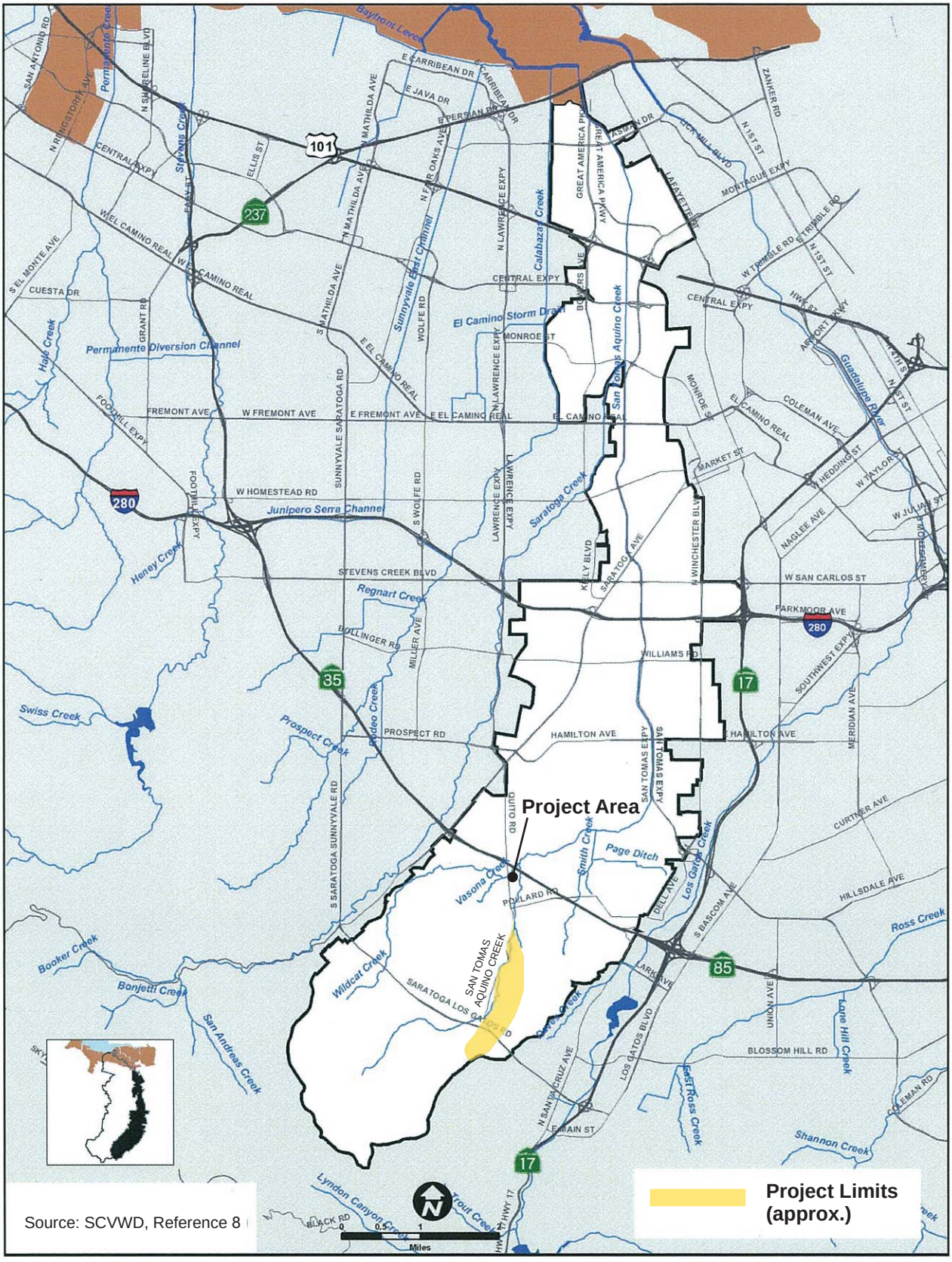


Figure 8. San Tomas Aquino Creek WMU

corridor is also shown on the figure. Because the SCVWD does own lands within the creek corridors, it is anticipated the Project will require an encroachment permit from the district.

The WMU is primarily an urban watershed. An overview of selected characteristics is provided below.

Erosion Risk. The WMU as a whole has a minimal erosion risk with 96 percent of the watershed area classified as "low." Most of the watershed area has slopes of less than 3 percent, while the highest erosion risk is about one-half mile upstream of Highway 9 in the headwaters of San Tomas Aquino Creek. This risk of erosion, however, refers to surface erosion and not the risk of erosion from the channel bed and banks, nor the erosion from mass wasting processes such as debris flow and landslides.

Flooding. According to the latest flood insurance rate maps issued by the Federal Emergency Management Agency (FEMA), the Project area is outside the 100-year floodplain.[19] Of the mapped waterways within the Project only segments of the Vasona Creek channel are a flood hazard zone.

Beneficial Uses. The Water Quality Control Plan (Basin Plan) prepared by the RWQCB for the San Francisco Bay Basin does not list a specific set of beneficial uses for Vasona Creek, Sobey Creek, or San Tomas Aquino Creek.[20] However, since these creeks are connected to Saratoga Creek, which does have a set of beneficial uses, the "Tributary Rule" would make all these beneficial uses applicable. The beneficial uses include groundwater recharge and flood control. Other beneficial uses that are dependent on adequate water supply include wildlife habitat, warm and cold freshwater replenishment, contact and non-contact water recreation, freshwater habitat, and agricultural supply.

Groundwater

The Santa Clara Valley Groundwater Basin provides half the County's water supply for potable use and is divided into three interconnected subbasins: the Santa Clara Valley Subbasin in north county and the Coyote and Hagas Subbasins in south county. The Project area is within the Unconfined Zone of the Santa Clara Valley Subbasin.

More detailed information on groundwater conditions in the Project area is not readily available. However, the 2013 Geotechnical Investigation for Q3 and Q4 did encounter shallow, free groundwater in 4 of 10 exploratory borings at depths of 1.6 to 17.5 feet below ground surface. During the supplemental geotechnical investigation in 2019, groundwater was encountered in five additional borings near the intersection of Chester and Allendale at 18 to 30 feet below ground surface.[7] Shallow groundwater is an important construction consideration because it triggers the need for water tight shoring in excavations and/or dewatering. It is noted that fluctuations in the groundwater level could occur from variations in rainfall, flooding, and other factors, and groundwater levels may be different at other times and locations.

IMPACT ANALYSIS

Control Measures Incorporated by WVSD

J1. Develop and submit for WVSD review and approval, if necessary, plans of the proposed dewatering system. The dewatering system plans shall be in sufficient detail to indicate power source, sizes of pumps, piping, appurtenances, placement of wells, and the ultimate disposal point for water; and to permit WVSD to review the overall completeness and effectiveness of the proposed system. The submittal shall also show means of evaluating drawdown in real-time (e.g., piezometers). The control of groundwater shall be such that softening of the bottom of excavations or formation of "quick" conditions or "boils" do not occur. Dewatering systems shall be designed and operated to prevent removal of the natural soils. Dewatering system submittal shall demonstrate coordination with the contractor-designed shoring and bracing method and submittal and the contractor-designed ground improvement method and submittal. The contractor shall obtain any necessary permits to dispose of water, dispose of water without damage to adjacent property, and, if necessary, filter it to remove sand and fine-sized soil particles before disposal into the sewer collection system.

J2. Implement temporary construction site BMPs to prevent the discharge of contaminated stormwater runoff from the job site. (see Geology and Soil Control Measure F9).

J3. Obtain encroachment permits from the City of Saratoga and SCVWD, and comply with permit conditions.

J4. For work within jurisdictional areas of local water courses, obtain appropriate authorizations from the Corps, RWQCB and CDFW, and comply with permit conditions.

J5. In excavation, fill, and grading operations, care shall be taken to minimize disturbance of the pre-existing drainage pattern. Avoid directing drainage water onto private property or into streets or drainage ways inadequate for the increased flow. Ensure positive drainage to and through existing drainage facilities from all newly patched hardscape areas.

J6. Avoid bypassing of sewage to surface water or other drainage courses during construction. If a spill of sewage or other material occurs, the contractor shall immediately inform the WVSD and take the necessary action to contain and clean-up the spill.

J7. Monitor for the presence of contaminated soil and/or groundwater during the course of the work. Immediately notify the Construction Manager if any suspect materials are encountered in accordance with the Contract Documents. Implement appropriate remedial measures as identified by the Construction Manager.

Significance Criteria

RESOURCE CATEGORY / SIGNIFICANCE CRITERIA	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
J. <u>HYDROLOGY AND WATER QUALITY</u>						
Would the Project:						
1) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐	☐	10
2) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐	☐	7, 10
3) 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 imperious surfaces, in a manner that would:						
a) Result in a substantial erosion or siltation on- or off-site;	☐	☐	☐	☒	☐	10
b) Substantially increase the rate or amount of surface runoff in a manner which could result in flooding on- or off-site;	☐	☐	☐	☒	☐	10
c) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☐	☒	☐	10
d) Impede or redirect flood flows?	☐	☐	☐	☒	☐	10
4) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒	☐	10
5) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒	☐	10

No Impacts: Criteria J3a-d, J4, J5

The proposed Project does not involve substantial alteration of the existing drainage pattern along the alignments (Criteria J3a-d); is not located in a flood hazard, tsunami, or seiche zone (Criterion J4); and would not obstruct implementation of a water quality control plan or sustainable groundwater management plan (Criterion J5).

Less-Than-Significant Impacts: Criteria J1, J2

Criterion J1. This criterion addresses violation of water quality standards or waste discharge requirements and degradation of groundwater and surface quality. Water from the dewatering activities must be properly disposed of by the contractor. As indicated in Control Measure J1, fine-sized particles would be settled out of the water, if necessary, using a Baker tank or other approved method prior to disposal to WVSD's sewer collection system, resulting in a less-than-significant impact. It should be noted that the proposed Project would greatly reduce the environmental risk associated with failure of the existing clay sewer line collection system.

Polluted runoff and water quality degradation are also issues associated with the Project. As an excavation and construction activity, the main source of surface water quality degradation stems from erosion of exposed soil surfaces, such as exist along open trenches and from soil stockpiles. Section G (Criterion G2) addressed soil erosion and the control measures included in the Project to address the issue. Control of erosion from construction sites is subject to various levels of regulatory oversight. Temporary construction site BMPs will be implemented to address stormwater impacts (Control Measure J2); permit conditions contained in encroachment permits from the City of Saratoga and SCVWD will be complied with (Control Measure J3); and any construction work within jurisdictional areas of local waterways must comply with the requirements of the Corps, RWQCB, and CDFW (Control Measure J4). Other control measures include minimizing disturbance of the pre-existing drainage pattern and control of drainage water (Control Measure J5), and proper management of the sewage bypass operation (Control Measure J6). Control Measure J7 provides for monitoring by the contractor of the presence of contaminated soil and/or groundwater during work activities and implementing appropriate remedial measures if contamination is encountered. Thus, potential impacts related to polluted runoff and water quality are less than significant.

Criterion J2. Criterion J2 relates to groundwater depletion or interference with groundwater recharge. The contractor will likely encounter shallow groundwater during excavation which must be removed based on the results of the Geotechnical Investigation for Q3 and Q4 and other rehabilitation work completed by WVSD. Control Measure J1 requires the contractor to have approved plans for the temporary use of a dewatering system. The Project is a short-term construction activity which would have a less-than-significant impact relative to groundwater depletion.

Mitigation Measures

None required.

K. LAND USE AND PLANNING

SETTING

A discussion of land use was included in the Introduction and Project Description. The Project area is within the jurisdiction of the City of Saratoga. Very low density residential is the predominant land use and is so designated in the City of Saratoga general plan and zoning maps.[1, 2]

IMPACT ANALYSIS

Control Measures Incorporated by WVSD

None.

Significance Criteria

RESOURCE CATEGORY / SIGNIFICANCE CRITERIA	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
K. LAND USE AND PLANNING						
Would the Project:						
1) Physically divide an established community?	☐	☐	☐	☒	☐	10
2) 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?	☐	☐	☐	☒	☐	10

No Impacts: Criteria K1, K2

The proposed Project is an integral component of WVSD's wastewater collection system rehabilitation program and includes rehabilitation of existing sanitary sewer lines within Q3 and Q4. The Project is consistent with WVSD's responsibility to provide high quality wastewater collection and disposal service for the local community which is protective of public health and the environment. The Project will not divide an established community (Criterion K1), and is consistent with local general plans and zoning designations (Criterion K2).

Mitigation Measures

None required.

L. MINERAL RESOURCES

SETTING

Mineral resources in the Saratoga vicinity are limited primarily to sandstone and shale. According to the City of Saratoga's General Plan Open Space and Conservation Element, there are no mines or quarries operating in Saratoga.[9] The Mineral Resource Zones (MRZs) have been identified by the California Department of Conservation, California Geological Society, in the Saratoga Planning Area. The Project area is within the following two MRZs:

- MRZ-1: Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.

- MRZ-3: Areas containing mineral deposits, the significance of which cannot be evaluated.

IMPACT ANALYSIS

Control Measures Incorporated by WVSD

None.

Significance Criteria

RESOURCE CATEGORY / SIGNIFICANCE CRITERIA	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
L. MINERAL RESOURCES						
Would the Project:						
1) 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?	☐	☐	☐	☒	☐	9, 10
2) 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?	☐	☐	☐	☒	☐	9, 10

No Impacts: Criteria L1, L2

The proposed Project includes only minor excavation activities within existing sewer easements and would not impact known mineral resources.

Mitigation Measures

None required.

M. NOISE

SETTING

The Project area is within the City of Saratoga. Residential land use predominates and the ambient noise levels are low and are primarily due to local traffic. The Project is a construction activity with no long-term operational noise sources.

The City of Saratoga's noise control regulations are contained in Article 7-30, Sections 7-30.010 through 7-30.100 of the Municipal Code. Section 7-30.040 addresses all proposed uses and developments shall comply with the following ambient noise standards for the residential zoning district:

	Daytime	Evening	Nighttime
Outdoor	60 dBA[a]	50 dBA	45 dBA
Indoor	45 dBA	33 dBA	30 dBA

[a] Decibel, A-weighted

Section 7-30.050, general noise restriction, stipulates that single events within residential zoning districts shall not produce noise of more than 6 dBA above the ambient noise level. Section 7-30.060 provides exceptions for specific activities, including residential, commercial, and subdivision construction where the noise level at any point 25 feet from the source of noise does not exceed 83 dBA. The proposed Project, as a pipeline rehabilitation activity, is not specifically recognized in Section 7-30.060 and the applicability of this section will need to be addressed by WVSD during the City of Saratoga's encroachment permit process.

IMPACT ANALYSIS

Control Measures Incorporated by WVSD

M1. Comply with all applicable provisions of the City of Saratoga noise abatement requirements for construction projects.

M2. Except for the bypass pumping and curing period, limit working hours to 9:00 a.m. to 4:00 p.m. on weekdays or as otherwise stipulated by local encroachment permits. Work hours beyond these limits must be approved by WVSD and the City of Saratoga.

M3. Avoid the use of loud sound signals in favor of light warnings except those required by safety laws for the protection of personnel.

M4. Equip internal combustion engines with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated without said muffler.

M5. To minimize noise levels, attempt to obtain electrical power from PG&E in lieu of providing power by portable generator. If use of utility power is not practicable, generator power may be provided by sound-attenuated electric generators provided with sound barriers or enclosures. Diesel generators shall not be utilized unless they are provided with sound barriers or enclosures, as necessary to comply with local ordinances.

M6. Provide sound-attenuated pumping equipment.

M7. To the extent possible, select pipe-bursting, CIPP installation and wastewater bypass pumping locations to minimize noise exposure to local residents.

M8. Provide written notice to all affected residences adjacent to the Project alignment and work areas. The notices will be provided 30 days, 7 days, and 1 day prior to the start of work and will provide information on Project activities, the rehabilitation schedule, and protocol for providing complaints relative to noise, odor, and hazardous conditions. Notices shall be subject to review and approval by WVSD.

M9. If noise complaints are received, identify the source, evaluate and implement available abatement measures, and notify the complainant(s) of the results.

Significance Criteria

RESOURCE CATEGORY / SIGNIFICANCE CRITERIA	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
M. NOISE Would the project result in:						
1) 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?	☐	☐	☒	☐	☐	10, 21
2) Generation of excessive groundbourne vibration or groundborne noise levels?	☐	☐	☒	☐	☐	10, 21
3) 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?	☐	☐	☐	☒	☐	10

No Impacts: Criterion M3

There are no airports in the Project area (Criterion M3).

Less-Than-Significant Impacts: Criteria M1, M2

Criteria M1 and M2 relate to substantial temporary or permanent increases in noise and vibration levels which may exceed applicable standards. There will be no permanent increases in noise and vibration levels. The proposed Project consists of short-term pipeline rehabilitation activities using traditional construction and engineering soils practices and equipment as discussed in the Project Description. Various pipeline rehabilitation techniques would be used with the most common being pipe bursting and CIPP. Excavation would be limited and pipeline rehabilitation would proceed in a rapid manner, thus minimizing exposure of individual residents to construction noise.

As indicated earlier, the contractor would comply with all applicable provisions of the City of Saratoga noise abatement requirements (Control Measure M1). Work hours would be limited (Control Measure M2) and a variety of controls would be placed on equipment use (Control Measures M3–M7). Control Measure M8 requires noticing of residents prior to the start of work, the protocol for providing complaints, and the implementation of additional noise abatement measures if necessary. With incorporation of these control measures, impacts related to increased noise or vibration levels are less than significant.

Mitigation Measures

None required.

N. POPULATION AND HOUSING

IMPACT ANALYSIS

Control Measures Incorporated by WVSD

None.

Significance Criteria

RESOURCE CATEGORY / SIGNIFICANCE CRITERIA	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
N. POPULATION AND HOUSING Would the Project:						
1) 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)?	☐	☐	☐	☒	☐	10
2) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒	☐	10

No Impacts: Criteria N1-N7

The proposed Project is a pipeline rehabilitation activity within established residential areas, existing roadways, and within creek corridors. There will be no impacts relative to population and housing.

Mitigation Measures

None required.

O. PUBLIC SERVICES

IMPACT ANALYSIS

Control Measures Incorporated by WVSD

None.

Significance Criteria

RESOURCE CATEGORY / SIGNIFICANCE CRITERIA	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
O. PUBLIC SERVICES						
Would the Project:						
1) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:						
a) Fire protection?	☐	☐	☐	☒	☐	10
b) Police protection?	☐	☐	☐	☒	☐	10
c) Schools?	☐	☐	☐	☒	☐	10
d) Parks?	☐	☐	☐	☒	☐	10
e) Other public facilities?	☐	☐	☐	☒	☐	10

No Impacts: Criteria O1a–O1e

The proposed Project will have no public service impacts.

Mitigation Measures

None required.

P. RECREATION

IMPACT ANALYSIS

Control Measures Incorporated by WVSD

None.

Significance Criteria

RESOURCE CATEGORY / SIGNIFICANCE CRITERIA	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
P. RECREATION						
Would the Project:						
1) 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?	☐	☐	☐	☒	☐	10
2) Include recreational facilities or require the construction of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒	☐	10

No Impacts: Criteria P1, P2

The proposed Project will not increase the use of local parks nor will it involve construction of new facilities.

Mitigation Measures

None required.

Q. TRANSPORTATION/TRAFFIC

SETTING

Local roadways affected by the proposed Project are shown on Figure 3. Collector and local streets within the Project area are designed for internal circulation and direct access to residential properties and accommodate lower traffic volumes and vehicle speeds. According to the City of Saratoga Circulation and Scenic Highway Element update, in the Project area Chester Avenue and Sobey Road are classified as collectors while the remainder of the roadways are classified as local streets.[22]

IMPACT ANALYSIS

Control Measures Incorporated by WVSD

Q1. Obtain an encroachment permit from the City of Saratoga and comply with permit conditions.

Q2. Submit in writing a complete TCP to WVSD and the City of Saratoga at the required time prior to the start of construction. The TCP shall include all streets and locations where work is to be performed and shall indicate each stage of work, closure dates for street and section of closure (if necessary and otherwise allowed by the City of Saratoga), signage, flaggers, and any other pertinent information. The TCP shall be reviewed and approved by WVSD and the City of Saratoga before the contractor begins work. Specific components of the TCP include the following:

a. Prior to the pre-construction conference, the contractor shall submit for approval the proposed route(s) for all construction traffic on the Project. This shall include any designated routes, if any, shown on the Contract Drawings. Upon approval, the contractor shall strictly adhere to that route(s) only, unless written permission is obtained to change the route(s).

b. At least one lane of traffic in each direction will be kept open at all times unless prior approval is provided by the local jurisdiction and any affected agency. No roads will be blocked or made inaccessible, due to the contractor's work, without prior written approval of the local jurisdiction and affected agencies. Fire lanes will not be blocked or obstructed at any time.

c. Work shall be accomplished to provide access to all side streets and properties whenever possible. If access to adjacent property cannot be provided, all property owners with restricted access shall be notified 24 hours in advance and adequate nearby parking shall be provided and maintained until direct access can be restored. The contractor shall provide for pedestrian traffic through work areas at all times.

d. Traffic control, signs, and barricades shall conform to the latest Caltrans Traffic Manual. Lighted barricades shall be used when required. Special attention shall be provided to excavation and open trenching.

e. Three flaggers shall be used for any one-way traffic flow situation (two working and one as standby), and shall be furnished by the contractor. The flaggers shall be properly equipped and trained in accordance with "Instructions to Flaggers," published by the California Department of Transportation.

f. Where flaggers are not visible to each other, additional flaggers shall be added as required by the City of Saratoga, or the contractor shall use radios.

g. All holes, trenches, etc., in pavement areas will be covered with 1-inch steel plates, shimmed with temporary asphalt on edges, by 5:00 p.m. or at the end of each work day. As an option to the contractor, the holes, trenches, etc., can be backfilled and all areas within pavement areas have temporary asphalt toppings. The temporary asphalt will be regularly maintained. All areas will be completely restored within 10 working days after the work has been completed at that location.

h. Contractor shall display "No Parking" signs in areas of work at least 72 hours in advance. The signs shall state the day(s), date(s), and time of construction work. "No Parking" signs shall be placed in full view along the side of the road and not more than 100 feet apart.

i. Contractor shall furnish, erect, maintain and remove all necessary construction signs and barricades for the full term of the Project.

j. Closure of streets can occur only between 8:00 a.m. and 5:00 p.m. if allowed by the City of Saratoga. At least 48 hours before lane or roadway closures, reopenings, or partial roadway obstructions, the contractor must notify the City of Saratoga Public Works Department, Santa Clara County Fire Department, Santa Clara County Sheriff's Office West Valley Patrol Division, U.S. Postal Service, Green Valley Disposal, Santa Clara Valley Transport Authority, local ambulance services, and the local school district. Approval to close a street is valid for one day only. Detours shall not be permitted unless approved in writing by the City.

k. Lane closures may be made for work periods only. At the end of each work period, all components of the traffic control system shall be removed from the traveled way, shoulder, and auxiliary lanes.

l. If emergency access is required during a temporary lane closure, workers will be present and available to take appropriate steps to immediately alter operations to provide access.

m. Use mechanical equipment which will minimize damage to the existing pavement at the work area and to all roads used as truck routes for equipment and material.

Replace all striping and pavement marking disturbed by construction to pre-construction configuration.

n. Restore all existing hardscape (pavement concrete or walkways, patios, or other surface features disturbed by the contractor's work) to the pre-construction conditions acceptable to the City of Saratoga and WVSD.

Significance Criteria

RESOURCE CATEGORY / SIGNIFICANCE CRITERIA	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
Q. TRANSPORTATION/TRAFFIC						
Would the Project:						
1) Conflict with a plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐	☐	10
2) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b)?	☐	☐	☒	☐	☐	10
3) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	☐	☐	☒	☐	☐	10
4) Result in inadequate emergency access?	☐	☐	☒	☐	☐	10

Less-Than-Significant Impacts: Criteria Q1-Q4

Local Circulation System and Transportation Impacts: Criteria Q1 and Q2. Criteria Q1 and Q2 address effects on the local transportation system and conflicts with applicable plans, ordinances, or policies. The Project consists of standard construction activities requiring equipment, materials, removal and off-site transport of construction debris and workers. Typically, only a few vehicles would be present in a given work area. The added number of vehicle trips and associated vehicle miles traveled would be minimal and would have a less-than-significant impact relative to Criteria Q1 and Q2.

Safety Hazards and Emergency Access: Criteria Q3 and Q4. Increased safety hazards and emergency access are addressed by Criteria Q3 and Q4. The Project Description included Figure 3, which provided an overview of the Project alignment and a summary of its characteristics. Roadways that would be affected were identified. As indicated earlier, pipeline rehabilitation activities would be within the City of Saratoga. An encroachment permit from the City of Saratoga would be required which would specify traffic control measures.

The Project is a short-term construction activity requiring the presence of construction equipment, materials, and staging areas all in confined space areas frequented by traffic, pedestrians, and bicyclists, and adjoin residential land uses with a high sensitivity. Construction techniques to be employed are generally minimally invasive, have limited excavation requirements, and can be completed in a limited time but some level of intrusion into the local roadway system would occur with potentially increased safety hazards and effects on emergency access.

Construction activity within roadways would be highly regulated, governed by the Contract Documents and the encroachment permit the contractor would need to obtain from the City of Saratoga (Control Measure Q1). A TCP (Control Measure Q2) is a key component of construction activity regulation which must be prepared by the Contractor and approved by WVSD and the City of Saratoga. As indicated earlier, TCPs would address a variety of issues related to work hour limitations, property accessibility, traffic flow, pedestrian access and safety, signage, road closures and agency notifications, pavement and hardscape restoration, emergency access, traffic safety controls, haul routes, staging areas, and replacement of damaged hardscape.

As with any construction project in an urban environment, local residents, motorists, pedestrians, and bicyclists would experience some inconvenience due to short-term Project construction activities. However, control measures would be implemented to reduce impacts to traffic flow and safety and emergency access to less-than-significant levels.

Mitigation Measures

None required.

R. TRIBAL CULTURAL RESOURCES

IMPACT ANALYSIS

Significance Criteria

RESOURCE CATEGORY / SIGNIFICANCE CRITERIA	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
R. TRIBAL CULTURAL RESOURCES						
1) Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and that is:						
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	☒	☐	10
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resource Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒	☐	10

No Impacts: Criteria R1a, R1b

Based on the Phase 1 Cultural Resources Evaluation discussed in Section E and included as Appendix B, no tribal cultural resources are known to exist within the Project area. Excavation activities will be minimized through the use of trenchless construction techniques. Mitigation measures ARCH-1 through ARCH-3 provide protocol for accidental discovery of historic and archaeological resources and human remains during excavation. No impact to tribal cultural resources will occur.

S. UTILITIES AND SERVICE SYSTEMS

IMPACT ANALYSIS

Control Measures Incorporated by WVSD

S1. Notify utility inspectors at least five working days in advance of any work which will require inspection by a representative of the utility companies. Allow WVSD or other utility owners to enter the work area for the purpose of maintenance and making such changes as are necessary for the rearrangement of their facilities or for making necessary connections or repairs to their properties.

S2. Obtain an application agreement from the San Jose Water Company for connection to hydrants.

S3. Verify the existence and/or location of all underground utilities prior to commencement of any excavation activities to determine the work set forth in the Contract Documents can be constructed as stipulated. This will include contacting Underground Service Alert at least one week in advance of excavation to provide for marking of facilities, contacting any additional utility companies to determine the location of existing utilities, and "potholing" or hand digging by the contractor or utility owner to determine the actual location of the pipe, duct, or conduit.

S4. Damage to existing hardscape (pavement concrete or walkways, patios, or other surface features) shall be minimized to the extent possible. If such areas are to be affected by construction activities, the contractor shall document existing condition and restore damaged hardscape to pre-construction conditions acceptable to WVSD and the City of Saratoga, including replacement of disturbed striping and pavement markings.

Significance Criteria

RESOURCE CATEGORY / SIGNIFICANCE CRITERIA	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
S. <u>UTILITIES AND SERVICE SYSTEMS</u>						
Would the Project:						
1) 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?	☐	☐	☒	☐	☐	10
2) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐	☐	10
3) 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?	☐	☐	☐	☒	☐	10
4) 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?	☐	☐	☒	☐	☐	10
5) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐	☐	10
6) Have a direct impact on utilities or other infrastructure improvements not addressed above?	☐	☐	☒	☐	☐	10

No Impacts: Criterion S3

As a wastewater collection system rehabilitation project, the proposed Project has no issues related to wastewater treatment capacity.

Less Than Significant Impacts: Criteria S1, S2, S4-S6

Criterion S1: New or Expanded Utility Systems. There is a possibility that during rehabilitation activities, conflicts with other utilities may occur. Control Measure S1 provides for other utility owners to access the area for the purpose of maintaining and making such changes that are necessary for the rearrangement of their facilities. Such changes are anticipated to be minor and localized and would have a less than significant impact.

Criterion S2: Water Supplies. As discussed in the Project Description, where the CIPP process will be used an initial activity for the contractor will be to clean and inspect the sewer mains and laterals. During construction, water will also be used for dust abatement and house cleaning purposes. The contractor may use fire hydrants to supply water for these purposes, which will tap into the municipal water supply. However, the use will be short term and not substantial. Control Measure S2 requires the contractor to obtain an appropriate permit from the San Jose Water Company for connection to hydrants and the temporary use of water during construction. This impact is less than significant.

Criteria S4 and S5: Solid Waste. These criteria address the waste generation and compliance with solid waste management regulations. Minor accounts of various solid waste materials will be generated by the Project, such as clearing and grubbing materials, roadway asphalt, concrete, sections of existing pipelines, and miscellaneous debris. Standard measures in the construction industry are to have the materials recycled to the extent possible and to dispose the remainder at a permitted landfill facility. The impact is less than significant.

Criterion S6: Utilities/Infrastructure Improvements. The Project involves rehabilitation of about 14,000 feet of sewer lines, predominantly through use of pipe bursting and the CIPP construction techniques which are minimally invasive and without significant excavation needs. However, as discussed in the Project Description, some excavation is still required for these processes and limited open cut excavation will be necessary. Construction activities in an urban environment must always address the locations of existing utilities because of the potential affect on the alignment, the construction method, and any necessary safeguards to avoid damage and service interruption. Other infrastructure improvements that may be impacted include roadway surfaces, walkways, driveways, patios, etc.

The 50 percent Plan Drawings for Q3 and Q4 have preliminarily identified approximate locations of underground utilities in that basin's Project area.[4] Utilities identified in Q3 and Q4 include sewer and water lines, electricity, and gas lines, and communication lines. The contractor will develop a cost-effective construction plan for each basin which will minimize disruption to other infrastructure improvements.

It will be the contractor's responsibility to verify exact locations of underground utilities prior to beginning work. Control Measure S3 requires the contractor to use Underground Service Alert and "potholing" prior to excavation to determine exact utility locations. Control Measure S1 allows WVSD or other utility owners to enter the work area for the purpose of making such changes as are necessary for the management of their facilities or for making necessary connections or repairs to their properties. As indicated by Control Measure S4, the contractor will be required to minimize damage to other infrastructure improvements and restore damaged improvements to documented pre-Project conditions acceptable to WVSD and the City of Saratoga. Thus, the impact to utilities or other infrastructure improvements is less than significant.

Mitigation Measures

None required.

T. WILDFIRE

SETTING

The City of Saratoga contains zones designated as Very High Hazard Severity by Cal Fire.[23] These zones form the City's Wildland Urban Interface Area which occupies roughly 40% of the land area within the western portion of the city. The City has adopted special fire protection measures and planning requirements for the Interface Area. The Project area is not located within the Interface Area and is located about 4 miles to the east.

IMPACT ANALYSIS

Control Measures Incorporated by WVSD

T1. Follow the requirements in California Code of Regulations, Title 8, Construction Safety Orders, Article 36, and General Safety Orders Article 88 for fire prevention.

T2. Furnish and maintain fully charged fire extinguishers on the job site. When work is being performed that generates sparks or open flame activity, appropriate fire extinguishers shall be available at the specific work site for use in case of fire. All employees shall be trained to use fire extinguishers.

Significance Criteria

RESOURCE CATEGORY / SIGNIFICANCE CRITERIA	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
T. <u>WILDFIRE</u>						
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:						
1) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒	☐	10, 23
2) 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?	☐	☐	☐	☒	☐	10, 23
3) 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?	☐	☐	☐	☒	☐	10, 23
4) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, and as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒	☐	10, 23

No Impacts: Criteria T1-T4

The Project area is not located within or near lands classified as very high fire hazard severity zones and no impacts relative to Criteria T1-T4 will occur. The contractor will comply with required fire prevention measures (Control Measures T1 and T2).

U. MANDATORY FINDINGS OF SIGNIFICANCE

IMPACT ANALYSIS

Significance Criteria

	RESOURCE CATEGORY / SIGNIFICANCE CRITERIA	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
U.	**MANDATORY FINDINGS OF SIGNIFICANCE**						
1)	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?	☐	☒	☐	☐	☐	10
2)	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 current projects, and the effects of probable future projects)?	☐	☐	☒	☐	☐	10
3)	Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☐	☒	10

Criterion U1. The Project is considered to be a high priority sewer rehabilitation project in the WVSD service area. The existing clay sewer lines were originally installed in the 1950s. Ongoing evaluations have determined these lines have exceeded their useful life, allow excessive infiltration/inflow of groundwater in certain areas of the collection system, and are under-sized since they do not conform to current WVSD pipeline design standards. The Project area includes 11 crossings of Sobey and Vasona Creek channels so rehabilitation of the sewer lines with

minimally invasive construction methods provides long-term benefit to the creek and its biological resources.

Criterion U1 addresses whether construction or operation of the Project would have severe biological or cultural resource impacts. Based on the analysis in this IS, this impact is less than significant with mitigation incorporated.

The Project is not expected to have any significant adverse impacts on sensitive natural communities or wildlife habitat and movement opportunities. No tree removal or other significant disturbance to existing vegetative cover is proposed as part of the Project.

In general, no significant adverse impacts on special-status species are anticipated because suitable habitat for special-status plant and most animal species is absent along most of the Project alignment. However, a number of special-status bird species have varying potential for occasionally foraging in the remaining woodlands in the vicinity of proposed construction.

A series of control measures and mitigation measures have been identified in the IS to address biological issues. Control measures include compliance with encroachment permit and tree preservation requirements of the City of Saratoga and authorization requirements that may be necessary from the Resource Agencies for all in- or near-channel activities. Mitigation resources include minimizing disturbances to creek beds and banks and restoration of affected areas to existing conditions; use of a qualified biologist to assure no inadvertent take of California red-legged frog, western pond turtle, or San Francisco dusky-footed woodrats during construction; and use of appropriate measures to prevent inadvertent loss of young birds during nesting season. Thus, all impacts will be reduced to less-than-significant levels.

Criterion U1 also addresses elimination of important examples of major periods of California history or prehistory. The cultural resources assessment (Appendix B) concluded that the Project alignment and its general vicinity to be moderately sensitive for both prehistoric and historic sites. Known archaeological and historic sites in the area will not be affected by the Project. All excavations within the Project area would be subject to appropriate measures if archaeological or paleontological resources or human remains are encountered during excavation. Thus, impacts to cultural resources are less than significant.

Criterion U2. Cumulative impacts are less than significant. There are no known past, current, or future projects which would make the incremental effects of the proposed Project considerable.

Criterion U3. Through rehabilitation of more than 14,000 feet of aging sewer pipelines, the Project would have long-term public health and safety benefits.

Criterion U3 addresses whether construction of the proposed Project would have adverse public health or safety impacts, which are considered to be less than significant. Physical hazards will exist during construction, including open access pits and trenches, operation of construction equipment, and transport of materials to and from the work area. The alignment involves construction within residential areas and along the Sobey and Vasona Creek corridor.

Work activities, however, will be regulated by state and federal regulations and through the encroachment permits of local jurisdictions. A variety of control measures have been included in the Project to address the protection of the public's and workers' health and safety. These measures focus on design and construction safeguards, minimizing exposure of the public and workers to potentially hazardous conditions, continued consultation with local jurisdictions as construction draws nearer to confirm safeguards to be employed, and immediately correcting unsafe conditions should they develop.

CHAPTER 4

CHECKLIST INFORMATION AND REFERENCE SOURCES

1. City of Saratoga General Plan. June 2007. Update in progress.

2. City of Saratoga Zoning Map, June 15, 2017.

3. RMC. West Valley Sanitation District. Project Priority Process.

4. Brown and Caldwell. Quito Basin 3 and 4 Sewer Rehabilitation Project, 50% Submittal, Contract Drawings. January 2020.

5. Brown and Caldwell. TM 3, Quito Basins 3 and 4 Sewer Rehabilitation Project, Project Description. February 2020.

6. Brown and Caldwell, July 2020.

7. Cotton, Shires and Associates, Inc. Geotechnical Investigation, Sanitary Sewer Rehabilitation Project for Quito Basin No. 3 and 4, April 2013.

   Cotton, Shires and Associates, Inc. Geotechnical Investigation, Sanitary Sewer Rehabilitation Project for Quito Basin 3 and 4, July 23, 2019.

8. SCVWD. West Valley Watershed Stewardship Plan. March 2006.

9. City of Saratoga Open Space and Conservation Element 2007. June 6, 2007. Update in progress.

10. Professional judgment and expertise of the environmental specialist preparing this assessment, based upon a review of the site and surrounding conditions, and review of Project Description information.

11. BAAQMD. CEQA Air Quality Guidelines. May 2017.

12. Alan Kam, WVSD. July 23, 2020.

13. CNDDB. Accessed on July 23, 2020.

14. City of Saratoga Municipal Code. Article 15-50, Tree Regulations.

15. Archeo-Tec, Consulting Archeologists. Limited Phase 1 Cultural Resources Evaluation for the Quito Basin Q3 and Q4 Sanitary Sewer Rehabilitation Project. August 1, 2013. Updated August 2020.

16. http://geotracker.swrcb.ca.gov

17. DTSC's Hazardous Waste and Substances Site List – Site Cleanup (Cortese List).

18. SCVWD. West Valley Watershed Stewardship Plan. March 2006.

19. FEMA Flood Insurance Rate Map No. 06085C0376H, Panel 376 of 830. Effective May 18, 2009.

20. San Francisco RWQCB. Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin. Updated through May 4, 2017.

21. City of Saratoga Municipal Code. Article 7-30, Sections 7-30.010 through 7-30-100. Norse Control.

22. City of Saratoga. General Plan. Circulation and Scenic Highway Element. November 17, 2010. Update in progress.

23. www.saratoga.ca.us/215/FireProtection

APPENDIX A

MITIGATION MONITORING AND REPORTING PLAN

Mitigation Monitoring and Reporting Plan

The following mitigation measures shall be implemented to reduce the impact to less-than-significant levels.

Potential Impact	Mitigation Measure	Responsibility	Action	Completion Date
D. Biological Resources				
D1, D3. Impact to Special-Status Species and Wetlands.	**Mitigation Measure BIO-1**: Disturbance to the bed and banks of Sobey Creek and Vasona Creek shall be minimized, and all areas disturbed as part of construction shall be restored to existing conditions. All native tree trunks within 40 feet of construction activities shall be flagged in the field by a qualified biologist prior to initiation of any construction, and temporary construction fencing shall be installed around their perimeter to prevent damage from equipment operation. Construction personnel shall be instructed that all disturbance (hand or equipment excavation, pruning, equipment storage, etc.) which could damage trees to be retained shall be avoided.	Contractor* WVSD *Hire qualified biologist	Condition contract documents, flag native tree trunks	Prior to construction
	Mitigation Measure BIO-2: A qualified biologist shall be retained to oversee construction and ensure that no inadvertent take of California red-legged frog or western pond turtle occurs as a result of short-term disturbance associated with the Sobey Creek or Vasona Creek crossings. This shall include the following provisions: a. Prior to any grading or grubbing at creek crossings, the qualified biologist shall conduct a preconstruction survey to confirm absence of any California red-legged frog or western pond turtle in the vicinity. In the remote instance	Contractor WVSD	Condition contract documents Worker training program Preconstruction survey Oversee construction	Prior to/ during construction

Potential Impact	Mitigation Measure	Responsibility	Action	Completion Date
	that any California red-legged frog individuals are encountered, the USFWS shall be consulted to determine appropriate avoidance measures prior to initiation of any construction activities. Any western pond turtle encountered shall be relocated to secure pool habitat located nearby selected by the qualified biologist. Silt fencing shall be installed as exclusionary fencing if any California red-legged frogs are encountered to ensure individuals cannot reenter the construction zone, and the exclusionary fencing shall be monitored daily to make sure it is intact and prevent access. This may include extending the construction fencing along the outer edge of the creek right-of-way upstream and downstream of the construction reach to prevent individuals from moving around the silt fencing. b. The qualified biologist shall be present to oversee installation of any required coffer dam and shall periodically inspect this system while in use to ensure no fish or other aquatic life are adversely affected. Screening shall be used at the entrance to the diversion pipe or dewatering pumps to prevent animals from becoming entrained in the pump. Adjustments shall be made as necessary to minimize disturbance to aquatic life during the short-term use of the coffer dam system. c. Silt fencing shall be installed at the downstream and upstream ends of the construction zone, buried a minimum of six inches, to serve as a barrier to keep ground motile wildlife from entering the construction zone,			

Potential Impact	Mitigation Measure	Responsibility	Action	Completion Date
	and to separate construction activities from the active channel. The wildlife exclusionary fencing material and design shall meet with latest standards called for by the USFWS and CDFW. The wildlife exclusion fencing shall remain in place during the entire construction period. d. The qualified biologist shall oversee initial vegetation clearing and installation of the wildlife exclusionary fencing where construction is to take place in natural areas within 100 feet of creek channels to prevent California red-legged frog from entering the construction area. Vegetation clearing shall be performed by hand and all slash shall be removed from the construction zone to remove any protective cover that could attract wildlife. Operation of grading equipment shall not occur until vegetative cover has been completely removed from the excluded construction zone and the qualified biologist has performed a pregrading survey to confirm absence of any California red-legged frog in the vicinity of construction and areas to be disturbed. e. Construction workers shall be trained by the qualified biologist regarding the potential presence of California red-legged frog and western pond turtle, that these species are to be avoided, that the foreman must be notified if they are seen, and that construction shall be halted until appropriate measures have been taken. For California red-legged frog, work shall be halted until authorization to proceed is obtained from the			

Potential Impact	Mitigation Measure	Responsibility	Action	Completion Date
	USFWS. Harassment of California red-legged frog is a violation of federal law. f. During the construction phase of the Project, a qualified biologist or an on-site monitor (such as the construction foreman trained by the qualified biologist) shall check the site in the morning and in the evening of construction activities for the presence of California red-legged frog and western pond turtle. This includes checking holes, under vehicles and under boards left on the ground. If any California red-legged frog are found, construction shall be halted, and the monitor shall immediately notify the qualified biologist in charge and the USFWS. Construction shall not proceed until adequate measures are taken to prevent dispersal of any individuals into the construction zone, as directed by the USFWS. Subsequent recommendations made by the USFWS shall be followed. g. Use of monofilament plastic for erosion control or other practices shall be prohibited as part of construction to prevent possible entrainment of wildlife. h. All food waste shall be removed daily from the site to avoid attracting predators. i. No one shall handle or otherwise harass any individual California red-legged frogs encountered during construction, with the exception of a Service-approved biologist. The qualified biologist in charge shall train the on-site monitor in how to identify California red-legged frog. The qualified			

Potential Impact	Mitigation Measure	Responsibility	Action	Completion Date
	biologist in charge shall visit the site at least once a week during construction and confer with the trained on-site monitor. **Mitigation Measure BIO-3:** Appropriate measures shall be taken to prevent inadvertent loss of young birds during the nesting season. This shall be accomplished according to the following procedures: a. If construction activities and any required tree removal occur during the breeding season between March 1 and August 31, a qualified biologist shall be required to survey areas within 100 feet of the Project alignment for nesting raptors and other native birds within 30 days prior to any ground-disturbing activity or tree removal, if required. b. If any active nests are detected, CDFW shall be notified of the survey results prior to any ground disturbing activity and an appropriate buffer established around the nest location within which construction shall be restricted. The buffer zone shall be developed by the qualified biologist based on input from CDFW and specific conditions associated with the nest. Typically, a construction setback of at least 50 feet for passerines and 100 feet for raptors shall be provided. c. Depending on conditions specific to each nest, and the relative location and timing of construction activities, it may be feasible for construction to occur as planned within the buffer without impacting the nest(s). In this case (to be			

Potential Impact	Mitigation Measure	Responsibility	Action	Completion Date
	determined in consultation with CDFW), the nest(s) shall be monitored by the qualified biologist during construction within the buffer. If, in the professional opinion of the monitor, the project would impact the nest, the biologist shall immediately inform the construction manager and CDFW. The construction manager shall immediately stop construction activities within the buffer until either the young have successfully fledged, and the nest is no longer active, or the project receives written approval to proceed from CDFW. d. If construction activities and any required tree removal and initial grubbing occur during the non-breeding season (September 1 through February 28), no preconstruction surveys would be required.			
	Mitigation Measure BIO-4: Adequate measures shall be taken to avoid inadvertent take of San Francisco dusky-footed woodrats. This shall be accomplished by taking the following steps: a. A qualified biologist shall be retained to conduct a preconstruction survey for San Francisco dusky-footed woodrats to determine whether any stick nests in the vicinity of proposed vegetation removal and construction. The survey shall be performed within 30 days prior to vegetation removal and construction access. b. Nests in the vicinity of proposed vegetation removal and construction access shall be flagged and avoided to the	Contractor WVSD	Condition contract documents Preconstruction survey Flag nests Relocate if needed	Prior to construction

Potential Impact	Mitigation Measure	Responsibility	Action	Completion Date
	extent feasible. c. If any nests are encountered within the limits of proposed construction access that cannot be avoided, a trapping and relocation effort shall be conducted outside the breeding season (March 1 through August 31) to ensure any young are not inadvertently lost due to the destruction of the protective nest. d. Any nests within the construction zone shall be relocated to locations undisturbed by construction access and outside the wildlife exclusion fencing, and individual woodrats released into their relocated nests. The trapping and relocation effort shall preferably be conducted within 7 days prior to grubbing and vegetation removal to prevent individual woodrats from moving back into the construction zone.			
E. Cultural Resources **E1-E3. Impact to historic and archeological resources and disturbed or redeposited human remains.**	**Mitigation Measure ARCH-1.** If excavations supporting pipeline rehabilitation occur outside the alignments in areas of potentially undisturbed soil, working crews shall be given a training session by a qualified archaeologist on identification of archaeological materials, and an "alert sheet" shall be prepared and distributed to the crews prior to the start of work.	Contractor* WVSD *Hire qualified archaeologist	Worker training Alert sheet	Prior to construction
	Mitigation Measure ARCH-2: Should archaeological resources be encountered at any point during Project excavation activities, all activity in the area of the discovery shall cease until WVSD retains the services of a qualified archaeological consultant to	Contractor WVSD	Develop treatment plan	During construction

Potential Impact	Mitigation Measure	Responsibility	Action	Completion Date
	examine the findings that have been made, assess their significance, and offer proposals for any exploratory procedures deemed appropriate to either further investigate and/or mitigate any adverse impacts. **Mitigation Measure ARCH-3:** Should human remains be encountered during excavation activities in the Project area, the following procedures shall be followed: a. Per the stipulations of the California Health and Safety Code Section 7050.5(b), the Santa Clara County Medical Examiner–Coroner's Office will be contacted immediately; this will occur whether or not a Most Likely Descendant (MLD) has already been appointed. b. The Medical Examiner–Coroner's Office has two working days in which to examine the identified remains. If the Coroner determines that the remains are Native American, then—if an MLD had not yet been appointed—the Office will notify the Native American Heritage Commission (NAHC) within 24 hours. c. Following receipt of the Medical Examiner–Coroner's Office notice, the NAHC will contact an MLD. The MLD will then have 48 hours in which to make recommendations to WVSD and the consulting archaeologist regarding the treatment and/or re-interment of the human remains and any associated grave goods. d. Appropriate treatment and disposition of Native American	Contractor WVSD	Follow requirements of Health and Safety Code	During construction

Potential Impact	Mitigation Measure	Responsibility	Action	Completion Date
	human remains and associated grave goods will be collaboratively determined in consultation between the appointed MLD, the consulting archaeologist, and the landowner or authorized representative. The treatment of human remains may potentially include the preservation, excavation, analysis, and/or reburial of those remains and any associated artifacts. e. If the remains are determined not to be Native American, the Medical Examiner–Coroner, archaeological research team, and WVSD will collaboratively develop a procedure for the appropriate study, documentation, and ultimate disposition of the historic human remains.			
G. Geology and Soils **G6. Impact to paleontological resources.**	**Mitigation Measure GS-1.** If paleontological resources, such as fossilized bone, teeth, shell, tracks, trails, casts, molds, or impressions are discovered during excavation activities, work shall stop in that area until a qualified paleontologist can assess the significance of the find and, if necessary, develop appropriate treatment measures in consultation with WVSD.	Contractor* WVSD *Hire qualified paleontologist	Develop treatment plan	During construction

APPENDIX B

LIMITED PHASE I CULTURAL RESOURCES EVALUATION

ARCHEO-TEC
CONSULTING ARCHAEOLOGISTS

Mr. Paul Scheidegger
201 N. Civic Drive, Suite 115
Walnut Creek, CA 94596

September 3, 2020

Subject: Updated Limited Phase I Cultural Resources Evaluation for the Quito Basin Sanitary Sewer Rehabilitation Project in the Town of Saratoga, Santa Clara County, California

Dear Mr. Scheidegger:

At your request, Archeo-Tec has completed an update to the 2013 Limited Phase I Cultural Resources Evaluation for the Quito Basin Sanitary Sewer Rehabilitation Project in Saratoga, Santa Clara County, California (Pastron 2013). The Project encompasses the installation, replacement and/or rehabilitation of over 14,000 feet of existing sewer lines within the West Valley Sanitation District's (WVSD) Quito Basin, Areas 3 and 4 (Figure 1).

This memorandum incorporates updates to the proposed Project plans as well as documentation of an updated records search of the Northwest Information Center (NWIC), which revealed that no new archaeological resources have been recorded within a half-mile radius of the Project site since the 2013 search was completed. Recommendations have been updated to reflect changes in proposed project plans Two geotechnical reports for the Project, one of which was completed in 2019, were also reviewed.

Proposed Excavation Methods

The updated Project is expected to employ a variety of installation, repair, and rehabilitation methods, all with varying levels of ground disturbance.

In summary:

• **Cured In Place Pipe (CIPP)** will treat existing pipes through existing manholes and not result in any ground disturbance.

• **Pipe Bursting** will expand existing pipes, which will be accessed through ground-disturbing pits.

• **Guided Auger Borings** will install pipes using an underground boring machine. Much of its ground disturbance will not be directly visible (though spoils may be observable).

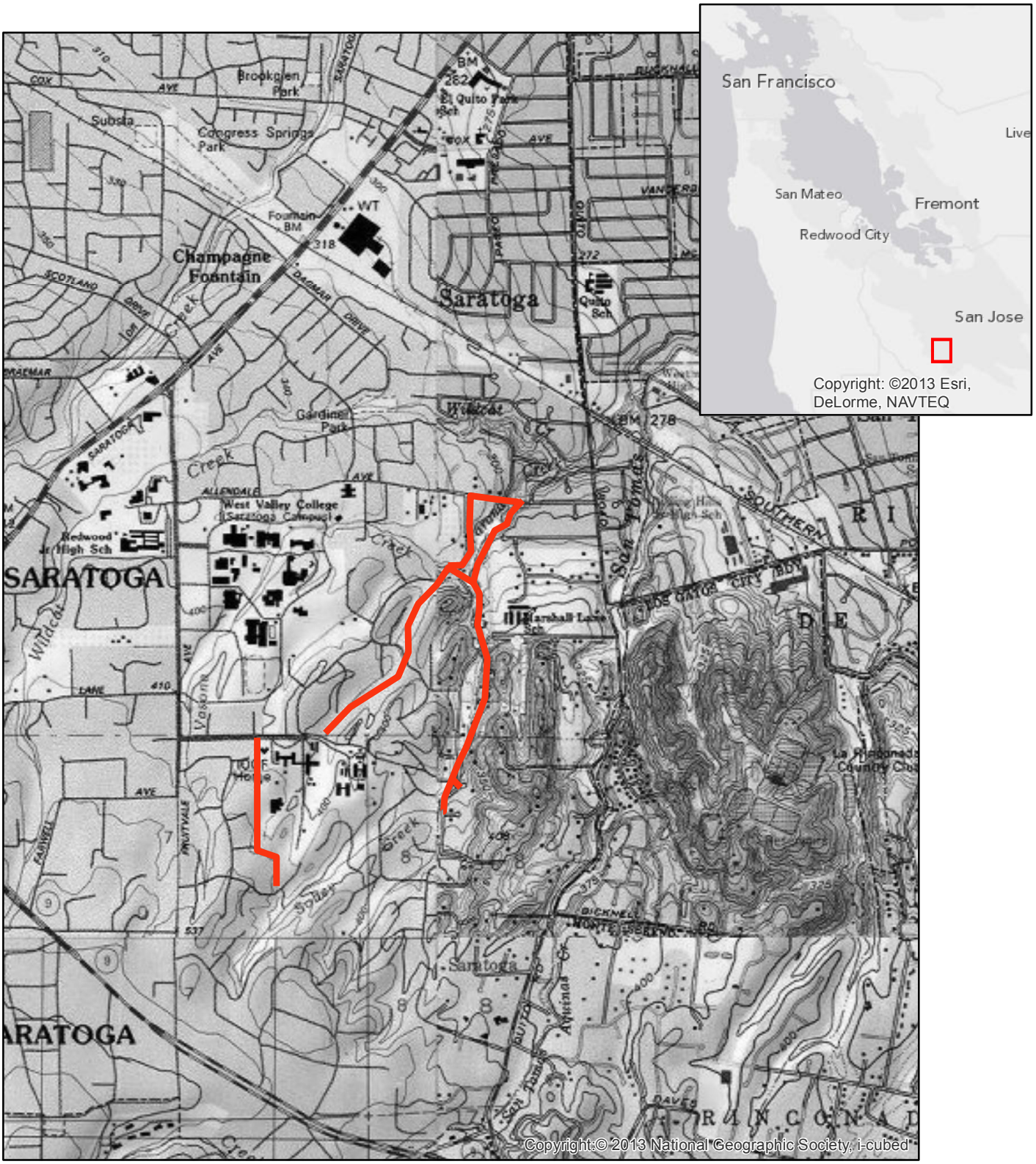


Figure 1. Project Location

West Valley Sanitation District - Quito Basin 3 and 4 Project

• **Open-Cut Excavation** entails trenching dug from surface.

Excavation that will disturb previously undisturbed soils have the potential to adversely impact historically important archaeological resources, should they be present within the path of construction.

Due to the fact that a portion of the repairs and replacements will take place over and around existing pipes, it is our understanding that some areas of the ground disturbance associated with this project will take place in soils that have already been disturbed.

Summary of Proposed Project Plans

The following summary describes all proposed installation/rehabilitation plans by method, estimating the extent of ground disturbance.

Cured in Place Pipe (CIPP) will be used for about 3,360 feet of the alignment. CIPP is a rehabilitation method that involves sliding a resin-impregnated tube into an existing pipe; the resin is then cured with hot water or steam to form a new jointless pipe. CIPP will utilize existing manholes and require no ground disturbance. No archaeological mitigation is warranted.

Pipe Bursting, which would be used for the replacement of approximately 8,772 feet of the alignment, is a trenchless method for rehabilitating pipelines where equipment is used to burst the host pipe into the surrounding soil while simultaneously pulling the new pipeline in its place.

Though the pipe bursting itself is not ground disturbing (aside from displacement around the pipe due to expansion) pipe bursting requires the excavation of an insertion or entry pit measuring about 3 feet wide, 15 feet long, and 3-12 feet deep. Geotechnical reports suggest that insertion pits for pipe bursting will, in some locations, be placed in areas of previously undisturbed soils (Cotton Shires & Associates 2019).

Guided Auger Boring is proposed for about 1,200 feet of the alignment. It is a trenchless method using an auger led by a probe with a camera followed by the guided bore, then a steel-cased auger segment. Excavated soils would not be observable in-situ, but may be observable upon emerging at the end of the pipe. The pipe itself would be a maximum of 24 inches in diameter, and the jacking and receiving shafts would be 9-12 feet in diameter and 20-25 feet deep.

Open-Cut Excavation would be used for approximately 766 feet of the alignment to install pipes 16 inches in diameter. As its name implies, open-cut excavation requires digging down to the pipe alignment from the surface. Though some areas of open cut will likely be in areas that have been previously disturbed (such as isolated point repairs), it is our understanding that some trenching will take place within previously undisturbed soils.

Two areas are slated for 5-foot-wide open-cut trenches. Dimensions of excavation in one area would be 13-21 feet deep and 180 feet long; in the second area, excavation would reach 10-20 feet deep and be 580 feet long (see Figure 2). Both will be within existing streets. Isolated point repairs, which would involve 6- and 8-inch diameter sewers, would also require open cut excavation. Since existing pipes will be repaired, it is likely that much of the ground disturbance associated with point repairs will take place within previously disturbed soils.

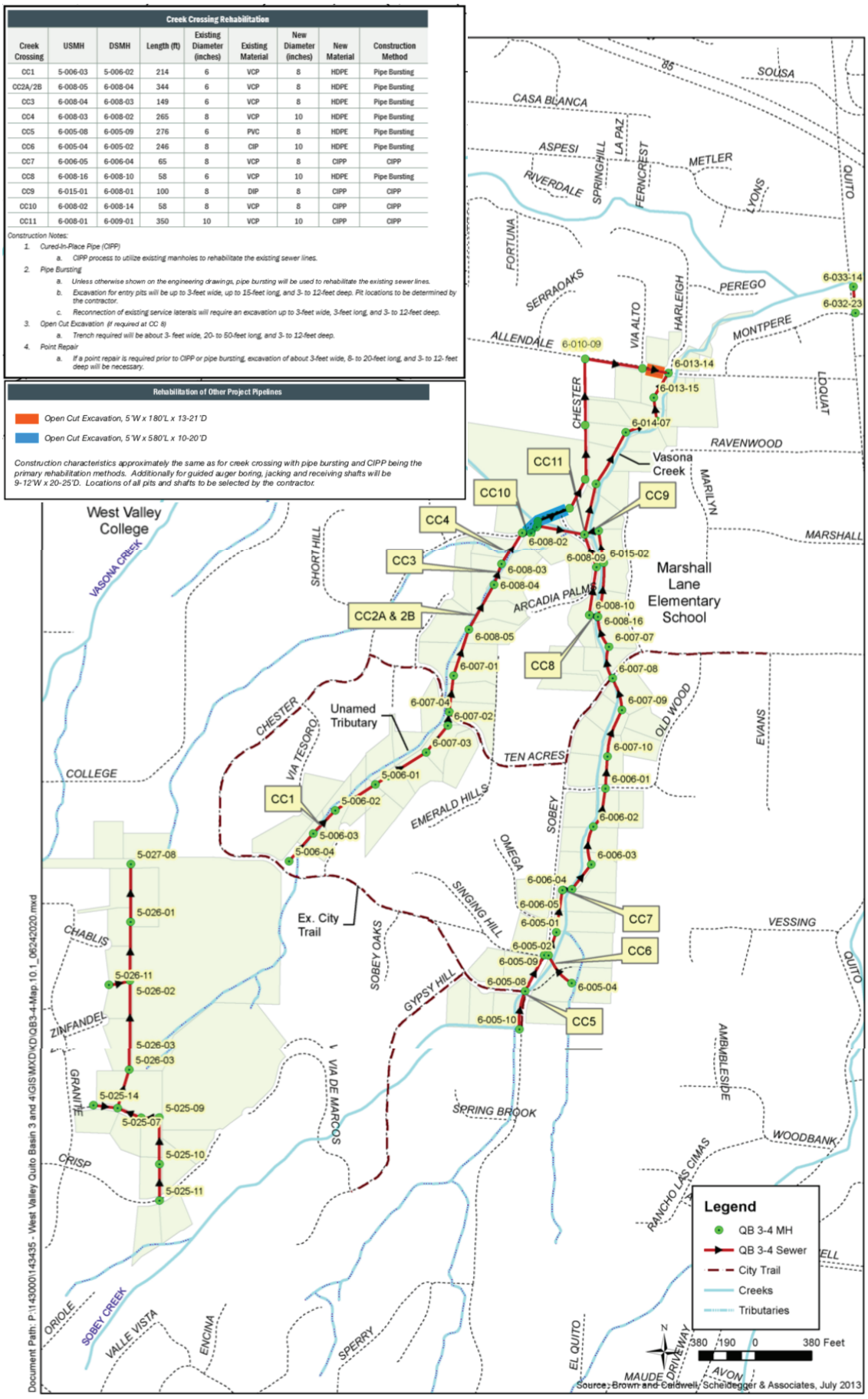


Figure 2. Area of Potential Effects (APE) Map *(Courtesy of Scheidegger & Associates)*

A number of other repairs and replacements will take place that do not appear to entail ground disturbance, including the replacement of one manhole, and inspection (and rehabilitation as needed) of 52 existing manholes.

Figure 2 shows the proposed alignment of the pipeline. Areas of open cut are indicated. The figure describes a series of eleven (11) creek crossing sites (one of which has two components) that will intersect Sobey Creek and an unnamed tributary to its west. The figure also designates the repair methods to be used for each crossing. A map showing locations of each method is not available at this time; however, the information is included for reference in tables from the technical memorandum (Brown and Caldwell 2020)(Appendix I).

Records Search and Tribal Consultation

The scope of work included of a review of documents on file at the Northwest Information Center (NWIC) at Sonoma State University and consultation with the Native American Heritage Commission (NAHC) and interested Native American representatives.

The initial records search at the NWIC was completed by Michelle Staley, M.A., on July 12, 2013 (File #13-0065). Mrs. Staley reviewed documents pertaining to all studies and known archaeological resources within one mile of the Project site. These documents are summarized in Table 1.

Due to the age of the original records search, and the possibility that additional resources had been found between 2013 and 2020, an updated records search was completed by the staff of the Northwest Information Center (closed for in-person searches due to the COVID-19 pandemic) on August 12, 2020 (File #20-0013). The updated search was limited to a half mile for recorded sites and a quarter mile for all reports (including negative reports). No new sites or resources were found in the updated search.

One known archaeological site, identified as CA-SCL-425/H, was located within 1/3-mile of the central-eastern side of the Project area. The site contains both a historical component—a farmhouse and barn—and a prehistoric midden containing fire-cracked rock and other lithics (Holman 2005). The site was surveyed and recorded by R. Cartier in 1980 after a resident told Dr. Cartier of a mortar that he found there. The NWIC contains no record of the site having been investigated since it was recorded.

Additionally, one study (S-8974) examined the area around two bridges on Quito Road and found historic buildings nearby (Stewart 1987). The bridges intersect Quito Road at two points: Bicknell Road (northernmost intersection) and Austin Way (southernmost intersection). The site is a little over a third of a mile from the southern and easternmost end of the current Project area. In preparing the study, Stewart performed a field survey and reviewed historic maps. She found that Austin Way had been an important road linking Saratoga and Los Gatos, and that the Quito Road/Austin Way area had contained several nineteenth-century residences and other historic buildings, two of which still stand along the Project alignment. The field survey, hampered by

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access restrictions, did not find evidence of any prehistoric or historical archaeological sites near the bridges.

Michelle Staley of Archeo-Tec wrote to the NAHC with the location of the Project and a request that they search their sacred land file and notify Archeo-Tec if any known sacred lands are located near the Project area. Ed Ketchum wrote Mrs. Staley on July 12, 2013, suggesting we contact the Muwekma Nation for further information. Katherine Perez responded on July 15, 2013 stating that she had no concerns for this Project area. Additionally, Rosemary Cambra of the Muwekma Ohlone Nation requested that her and her tribe no longer be contacted regarding matters of mitigation recommendations until "they can make major changes." This was relayed to Archeo-Tec on June 26, 2013. On July 29, 2013, Ms. Danielle Brown called each remaining representative in an effort to secure comment. A report of these calls is contained in Table 2.

Geotechnical Investigations

Geotechnical investigations offer a glimpse of subsurface conditions within a limited portion of the Project alignment.

Initial geotechnical investigations were completed in March of 2013 (Cotton, Shires & Associates 2013). Artificial fill was encountered throughout several shallow geotechnical borings placed above the existing pipeline, and alluvium overlying the Santa Clara Formation was encountered in most of the deeper (up to 21-foot) borings placed adjacent to the pipelines. Another geotechnical study took place in 2019 at potential jacking and receiving pit locations (Cotton, Shires & Associates 2019).

Boring logs from both projects were reviewed for anything suggesting subsurface cultural materials (e.g., crushed shell, faunal bone). No such materials were apparent. (Note that his does not rule out the presence of cultural resources, as the soils were not observed by an archaeologist, and some archaeological resources would not be apparent in borings.) The 2019 report revealed that undisturbed alluvium at depths as shallow as one foot below surface was present at several of the proposed pit locations, confirming that some ground disturbance will take place in previously undisturbed areas.

Recommended Mitigation Measures

In recommending mitigation measures for the Project, two factors have been taken into consideration for each site: the repair method corresponding degree of proposed soil disturbance, and how likely the undisturbed soil is to contain archaeological resources.

Considering the distance between known sites and the Project alignment, as well as the presence of creeks and other favorable geographic attributes, the Project alignment and its general vicinity is considered moderately sensitive for both prehistoric and historic sites. Indigenous settlement in and around creeks was common; areas in the immediate vicinity of creeks are thus typically considered sensitive.

Alignments employing exclusively CIPP will be accessed from existing manholes. This method will not affect any soil, whether disturbed or undisturbed.

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Pipe bursting access trenches, open cut trenches/point repairs, and guided auger borings will all result in ground disturbance.

It is recommended that crews working on ground-disturbing excavation within the alignment be given a training session to identify potential cultural materials, and that an "alert sheet" be distributed to the crews prior to the start of work.

It is understood that much of the ground disturbance will take place in fill/within areas of previous disturbance, and no mitigation is necessary in areas where this is known to be the case.

Should archaeological resources—which would likely take the form of shell deposits, modified bone and/or lithics, or human remains—be encountered at any point during the Project, it is recommended that all activity in the area of discovery cease until the Project Sponsor retains the services of a qualified archaeological consultant who shall examine the findings that have been made, assess their significance, and offer proposals for any exploratory procedures deemed appropriate to either further investigate and/or mitigate any adverse impacts to archaeological resources which have been encountered within the borders of the Project area.

Should human remains be encountered, the following procedure will occur:

- Per the stipulations of the California Health and Safety Code Section 7050.5(b), the Santa Clara County Medical Examiner-Coroner's Office will be contacted immediately; this will occur whether or not a Most Likely Descendant (MLD) has already been appointed.
- The Medical Examiner-Coroner's Office has two working days in which to examine the identified remains. If the Coroner determines that the remains are Native American, then—if an MLD has not yet been appointed—the Office will notify the Native American Heritage Commission (NAHC) within 24 hours.
- Following receipt of the Medical Examiner-Coroner's Office notice, the NAHC will contact an MLD. The MLD will then have 48 hours in which to make recommendations to the project sponsor and consulting archaeologist regarding the treatment and/or re-interment of the human remains and any associated grave goods.
- Appropriate treatment and disposition of Native American human remains and associated grave goods will be collaboratively determined in consultation between the appointed MLD, the consulting archaeologist, and the landowner or authorized representative. The treatment of human remains may potentially include the preservation, excavation, analysis, and/or reburial of those remains and any associated artifacts.
- If the remains are determined not to be Native American, the Medical Examiner-Coroner, archaeological research team, and the project sponsors will collaboratively develop a procedure for the appropriate study, documentation, and ultimate disposition of the historic human remains.

I hope that the remarks made in the preceding paragraphs are of use to you. If I can add anything further, or provide any additional information, please do not hesitate to contact me at your convenience.

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Sincerely,

Allen G. Pastron, Ph.D.,
President, Archeo-Tec

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Table 1. Studies completed within one mile of the Project area[1]

Number	Title	Author	Year	Result
S-4344	Archaeological Reconnaissance of the Odd Fellows of Saratoga Retirement Community Construction Site, Saratoga [letter report]	David Chavez	1976	Negative
S-4738	Archaeological Reconnaissance of "Lands of Good", San Jose [letter report]	Katherine Flynn	1979	Negative
S-5309	Archaeological Evaluation of the Arroyo Rinconada Development	Robert Cartier	1980	Negative
S-5991	Archaeological Survey Report for Orchard Removal at Selected Locations on 04-SCL-85 Post Miles 12.9, 13.2, 13.5/13.7; 04-SCL-87 Post Miles 3.7 04402-911036, Cities of Saratoga and San Jose, Santa Clara County	Mara Melandry	1981	Negative
S-6972	Archaeological Survey Report for the Proposed Construction of Route 85/87 in Santa Clara County, 04-SCL-85	Lawrence E. Weigel	1984	Negative
S-7458	Results of Archaeological Reconnaissance and Evaluation SD-1595 Gypsy Hill Farm Subdivision Project, Sobey Road and Chester Avenue, City of Saratoga, Santa Clara County, California	Larry Bourdeau	1985	Negative
S-8503	Archaeological Reconnaissance of a City of San Jose Project- Extension of Westmont Avenue to Quito Road [letter report]	Katherine Flynn	1979	Negative

[1] Initial records search (2013) was one mile. Updated records search (2020) was a half mile for resources (i.e., archaeological sites), and quarter mile for studies (reports, including negative studies).

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Number	Title	Author	Year	Result
S-8974	Cultural Resources Study for the Quito Road Bridge Replacement Project, City of Saratoga, Santa Clara County, California	Suzanne B. Stewart	1987	Noted presence of historic buildings at Quito Road and Austin Way and possible presence of residential deposits.
S-9911	Archaeological Evaluation of Parcel C of the Oddfellows Property, Saratoga, CA [letter report]	Archaeological Resource Service	1988	Negative
S-10395	Department of Transportation Negative Archaeological Survey Report [Survey along Route 9 from Route 17 to Route 9]	Mark G. Hylkema	1988	Negative
S-20529	Cultural Resources Assessment, Pacific Bell Mobile Services Facility SF-542-02, Saratoga, Santa Clara County, California	Barry A. Price	1998	Negative
S-20551	Cultural Resources Assessment, Pacific Bell Mobile Services Facility SF-621-03, Saratoga, Santa Clara County, California [letter report]	Applied EarthWorks	1998	Negative
S-26340	Archaeological Monitoring of Santa Clara Valley Water District Stream Maintenance Projects, August – October 2002	Dayna R. Tinsley	2003	Negative
S-31555	Archaeological Field Inspection of the 13686 Quito Road Project, Saratoga, Santa Clara County, California [letter report]	Miley Paul Holman	2005	One resource was encountered (P-43-001798)
S-37518	Cultural Resources Records Search and Site Visit for T-Mobile West Corporation a Delaware Corporation Candidate SF24196-A. 14091 Quito Road, Saratoga, Santa Clara County, California.	Carrie D. Willis	2010	Negative

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Table 2. Log of telephone conversations with members of the Native American community

Name	Affiliation	Date	Result
Jakki Kehl	Ohlone/Costanoan	7/29/13	The mailbox was full; no message could be left.
Katherine Erolinda Perez	Ohlone/Costanoan Northern Valley Yokut Miwok	7/15/13	See email response above.
Valentin Lopez	Amah Mutsun	7/29/13	Left message on machine.
Edward Ketchum	Amah Mutsun	7/12/13	See email response above.
Irene Zwierlein	Amah Mutsun	7/29/13	Left message on machine.
Jean-Marie Feyling	Amah Mutsun	7/29/13	She recommends following CEQA guidelines closely. A qualified Native American monitor should be retained if anything is encountered. If any human remains are encountered the coroner should be contacted immediately. The NAHC will appoint the MLD.
Ann Marie Sayers	Indian Canyon Mutsun Band of Costanoan	7/29/13	She would like to be contacted after any site survey done and requests we retain a qualified Native American monitor if anything is encountered.
Rosemary Cambra	Muwekma Ohlone Indian Tribe of the SF Bay Area	6/26/13	See response above.
Andrew Galvan	The Ohlone Indian Tribe	7/29/13	Left message on machine.
Ramona Garibay	Trina Marine Ruano Family	7/29/13	Left message on machine.

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2020 *Technical Memo 3, Project Description for the Quito Basin 3 and 4 Sewer Rehabilitation Project*.

Cotton Shires & Associates
2013 *Geotechnical Investigation, West Valley Sanitation District Sanitary Sewer Rehabilitation Project, Quito Basin No. 3 and 4, Saratoga, California*.

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1987 *Cultural Resources Study for the Quito Road Bridge Replacement Project, City of Saratoga, Santa Clara County, California*.

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Appendix I: Tables showing Locations of Rehabilitation Methods
(Brown and Caldwell 2020)

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sewer is undersized for the full basin flows, but is not a candidate upsizing with pipe bursting due to its location relative the creek and concerns with creek bank stability following construction.

A summary of the Project's pipe rehabilitation and installation by reach is provided in Table 1.

Table 1. Proposed Rehabilitation Methods for Project Pipes

US MH	DS MH	Existing Pipe		New Pipe		Length (ft)	Construction Method	Dwg No
		Dia. (in)	Material	Dia. (in)	Material			
5-025-11	5-025-10	6	VCP	8	HDPE	244	Pipe Bursting	C1
5-025-10	5-025-09	6	VCP	8	HDPE	314	Pipe Bursting	C1
5-025-09	5-025-08	6	VCP	8	HDPE	120	Pipe Bursting	C1
5-025-08	5-025-07	6	VCP	8	HDPE	173	Pipe Bursting	C1
5-025-07	5-026-03	6	VCP	8	HDPE	270	Pipe Bursting	C1
5-025-14VR	5-025-07	6	VCP	8	HDPE	164	Pipe Bursting	C1
5-026-03	5-026-02	6	VCP	8	HDPE	499	Pipe Bursting	C2
5-026-02	5-026-01	6	VCP	8	HDPE	394	Pipe Bursting	C2
5-026-01	5-027-08	6	VCP	8	HDPE	390	Pipe Bursting	C2
5-026-11	5-026-02	6	VCP	8	HDPE	146	Pipe Bursting	C2
5-006-04	5-006-03	6	VCP	8	HDPE	247	Pipe Bursting	C3
5-006-02	5-006-01	6	VCP	8	HDPE	323	Pipe Bursting	C3
5-006-01	6-007-03	6	VCP	8	HDPE	405	Pipe Bursting	C3
6-007-03	6-007-02	6	VCP	8	HDPE	232	Pipe Bursting	C3
6-007-02	6-007-04	6	VCP	8	HDPE	91	Pipe Bursting	C3
6-007-04	6-007-01	6	VCP	8	HDPE	245	Pipe Bursting	C3
5-006-03	5-006-02	6	VCP	8	HDPE	214	Pipe Bursting	C3, C10
6-007-01	6-008-05	6	VCP	8	HDPE	328	Pipe Bursting	C4
6-008-14	6-009-02	10	VCP	10	CIPP	55	CIPP	C4
6-009-02	6-008-15	10	VCP	10	CIPP	10	CIPP	C4
6-008-15	6-008-01	8	VCP	8	CIPP	322	CIPP	C4
6-008-05	6-008-04	6	VCP	8	HDPE	344	Pipe Bursting	C4, C11
6-008-04	6-008-03	6	VCP	8	HDPE	149	Pipe Bursting	C4, C12
6-008-03	6-008-02	8	VCP	10	HDPE	265	Pipe Bursting	C4, C12
6-008-02	6-008-14	6	VCP	8	CIPP	58	CIPP	C4, C15
6-005-10	6-005-08	6	PVC	8	HDPE	262	Pipe Bursting	C5
6-005-09	6-005-02	6	VCP	8	HDPE	28	Pipe Bursting	C5
6-005-02	6-005-01	8	VCP	10	HDPE	164	Pipe Bursting	C5
6-005-01	6-006-05	8	VCP	10	HDPE	288	Pipe Bursting	C5
6-005-08	6-005-09	6	PVC	8	HDPE	276	Pipe Bursting	C5, C13
6-005-04	6-005-02	8	VCP	10	HDPE	246	Pipe Bursting	C5, C13

Table 1. Proposed Rehabilitation Methods for Project Pipes

US MH	DS MH	Existing Pipe		New Pipe		Length (ft)	Construction Method	Dwg No
		Dia. (in)	Material	Dia. (in)	Material			
6-006-04	6-006-03	8	VCP	10	HDPE	212	Pipe Bursting	C6
6-006-03	6-006-02	8	VCP	10	HDPE	264	Pipe Bursting	C6
6-006-02	6-006-01	8	ACP	8	CIPP	277	CIPP	C6
6-006-01	6-007-10	8	ACP	8	CIPP	216	CIPP	C6
6-007-10	6-007-09	8	ACP	8	CIPP	330	CIPP	C6
6-007-09	6-007-08	8	VCP	10	HDPE	224	Pipe Bursting	C6
6-007-08	6-007-07	8	VCP	10	HDPE	221	Pipe Bursting	C6
6-007-07	6-008-16	8	VCP	10	HDPE	221	Pipe Bursting	C6
6-006-05	6-006-04	8	VCP	8	CIPP	65	CIPP	C6, C14
6-008-16	6-015-02	8	VCP	8	CIPP	367	CIPP	C7
6-015-02	6-015-01	8	VCP	8	CIPP	235	CIPP	C7
6-008-10	6-008-09	6	VCP	10	HDPE	328	Pipe Bursting	C7
6-008-09	6-008-01	6	VCP	10	HDPE	248	Pipe Bursting	C7
6-008-16	6-008-10	6	VCP	10	HDPE	58	Pipe Bursting	C7, C14
6-015-01	6-008-01	8	DIP	8	CIPP	100	CIPP	C7, C15
6-008-01	6-009-01	10	VCP	10	CIPP	350	CIPP	C7, C16
6-009-01	6-014-07	10	VCP/CIP	10	CIPP	401	CIPP	C8
6-014-07	6-014-06	10	CIP	10	CIPP	223	CIPP	C8
6-014-06	6-013-15	10	CIP	10	CIPP	158	CIPP	C8
6-013-15	6-013-14	10	CIP	10	CIPP	193	CIPP	C8
6-032-23	6-033-14	10	VCP	16	HDPE	175	Pipe Bursting	C9
6-008-02	1-111-11	N/A	N/A	12	HDPE	586	Open cut	C17
1-111-11	1-111-12	N/A	N/A	16	VCP	275	Guided Bore	C17
1-111-12	1-111-13	N/A	N/A	16	VCP	275	Guided Bore	C17
1-111-13	6-010-09	N/A	N/A	16	VCP	270	Guided Bore	C17
6-010-09	1-111-14	N/A	N/A	16	VCP	380	Guided Bore	C17, C18
1-111-14	6-013-14	N/A	N/A	16	HDPE	180	Open Cut	C18