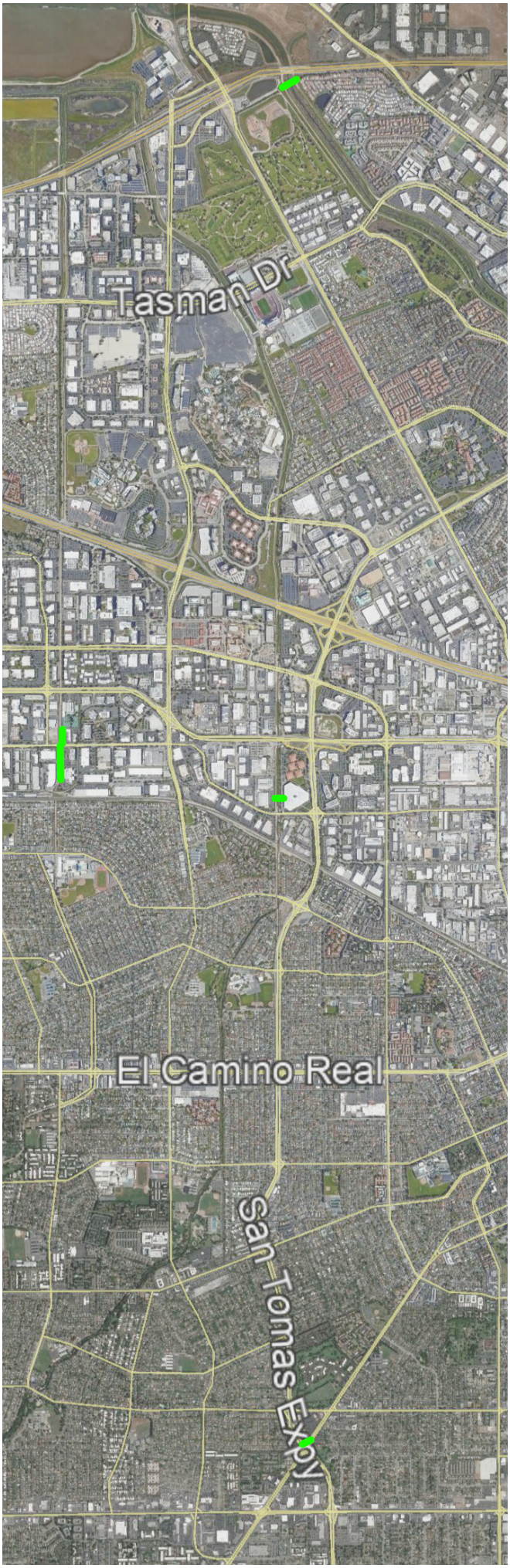


City of Santa Clara
The Center of What's Possible

Sanitary Sewer Condition Assessment Repairs

# Initial Study and Proposed Mitigated Negative Declaration

June 2019

Redtail Consulting
Environment & Community

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Sanitary Sewer Condition Assessment Repairs

# Initial Study and Proposed Mitigated Negative Declaration

June 2019

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# 1 Introduction

This document is an Initial Study analyzing the environmental impacts of carrying out six sanitary sewer repair projects proposed by the City of Santa Clara (City) as part of the Sanitary Sewer Condition Assessment Repairs Program, consistent with the California Environmental Quality Act (CEQA) and the state's *CEQA Guidelines*. As the entity that will make the decision about whether or not to proceed with the projects, the City is serving as the lead agency under CEQA. As a state agency with jurisdiction over natural resources held "in trust" for the people of California and potentially affected, the California Department of Fish and Wildlife (DFW) is considered a trustee agency under CEQA.

One of the repair projects analyzed in this Initial Study would be located within the Guadalupe River corridor and would require permitting from the U.S. Army Corps of Engineers. As a result, the San Francisco Bay Regional Water Quality Control Board (RWQCB) will also use this document in deciding whether or not to issue water quality certification for those repairs, pursuant to Section 401 of the federal Clean Water Act, and is therefore considered a responsible agency under CEQA. If DFW elects to take jurisdiction and require a Streambed Alteration Agreement for repairs at the Guadalupe River, DFW will also be a responsible agency.

Based on the analysis presented in this Initial Study, the City anticipates adopting a Mitigated Negative Declaration for the proposed repair projects. The Mitigated Negative Declaration signifies that although the projects would have the potential for some significant environmental impacts, the City has identified and committed to implement measures to mitigate—that is, to avoid or reduce—those impacts, such that with the mitigation measures in place, no significant short- or long-term impacts are expected as a result of the proposed projects.

## Contents and Organization of this Initial Study

This Initial Study contains the following sections.

- **Section 1 – Introduction:** provides background information; explains the scope of this Initial Study; discusses the need for the projects and identifies project goals and objectives; lists the permits and approvals that will be required to implement each project; briefly discusses consultation regarding Native American tribal cultural resources; and describes the process and timeline for public review and comment on this Initial Study
- **Section 2 – Project Information:** provides specifics regarding the locations and nature of the proposed repairs analyzed in this Initial Study, the repair activities that are anticipated, and ongoing operations and maintenance of the repaired facilities once repairs are completed

- **Section 3 – Environmental Impacts:** analyzes the impacts of implementing the proposed repairs on the environment and describes the mitigation measures the City will implement to avoid or reduce potentially significant impacts
- **List of Acronyms and Abbreviations:** presented as an 11 x 17 foldout table following Section 3
- **Appendices:**
  - Appendix A: Air Quality and Greenhouse Gas Emissions Modeling Results
  - Appendix B: Biological Evaluation
  - Appendix C: Cultural Resources Technical Studies
  - Appendix D: Proposed Mitigated Negative Declaration

## Background

The City's Water & Sewer Utility owns and operates a sanitary sewer system that serves close to 120,000 residential, commercial, and industrial customers within City limits and also accepts flows from the neighboring Cupertino Sanitary District under an agreement originally executed in 1985. Wastewater collected in the sewer system is conveyed to the San José–Santa Clara Regional Wastewater Facility, located in the north San José Baylands, for treatment (City of Santa Clara Water & Sewer Utility 2014, City of San José 2019).

The City's sanitary sewer network comprises almost 300 miles of sewer mains ranging from 4-inches to 48-inches in diameter. The majority of the system consists of vitrified clay pipe (VCP), much of which was installed between 1940 and 1980. The system also includes two large pump stations equipped with flow meters (Rabello and Northside Pump Stations) and four smaller unmetered lift stations (Tasman, Westside, Primavera, and De La Cruz Pump Stations). All of the pump stations have radio telemetry enabling remote monitoring of operations (City of Santa Clara Water & Sewer Utility 2014).

In accordance with industry standard practices, the City routinely evaluates the condition of its sewer infrastructure to identify maintenance, repair, and replacement needs. Sewer infrastructure is assessed using the National Association of Sewer Service Companies' (NASSCO's) Pipeline Assessment Certification Program (PACP) guidelines, which assigns grades based on the significance of observed defects, damage/deterioration, and operational impairment, as follows.

- Grade 5 – most significant defect
- Grade 4 – significant defect
- Grade 3 – moderate defect
- Grade 2 – minor to moderate defect
- Grade 1 – minor defect

Pipes are evaluated separately for structural integrity and operations and maintenance (O&M) function.

Consistent with the PACP guidelines, the City's priority is to address Grade 5 defects. Straightforward repairs—such as "remove and replace" spot repairs—are typically performed inhouse by City maintenance staff. More complex repairs are performed by outside contractors under public works construction contracts. Examples of the types of repairs the City typically contracts out include those involving large-diameter pipes, deep

excavation, high flow volumes, or pipe lining, and projects that require flows to be maintained by bypasses or highlining during work.

In November 2012, Northern California River Watch filed a complaint against the City in the United States District Court, Northern District of California (Case No. 3:12-cv-05974-JSC), alleging violations of the federal Clean Water Act in relation to sanitary sewer overflows. A Settlement Agreement was negotiated in early 2013. Among other conditions, the 2013 Settlement Agreement required the City to

- within 5 years, conduct a Surface Water Condition Assessment evaluating the condition of all gravity sewer lines within 150-feet of surface waters, except for lines that had been assessed by closed circuit television (CCTV) inspection within the last 5 years or constructed within the last 10 years
- repair all Grade 5 defects within 3 years of discovery
- within 8 years, conduct a Full Condition Assessment evaluating the City's other gravity sewer lines (those outside the 150-foot limit around surface waters), except for those that have been inspected by CCTV within 5 years, or constructed within 10 years, of the date of the Full Condition Assessment

The Surface Water Condition Assessment was conducted in advance of the deadline and the Full Condition Assessment is on track for completion on schedule, in conjunction with the City's routine condition assessment program.

The City's recent condition assessments, including the Surface Water Condition Assessment required by the Settlement Agreement, have identified a number of Grade 5 defects that require prompt repairs. As a result of the Settlement Agreement, some of the needed repairs are under deadlines, as noted above, and the City is now engaged in a repair program to address the identified defects. A number of repairs have already been completed. The current repair program comprises a total of about 70 additional repair projects, each of which addresses a specific defect or defects on a particular segment of City sanitary sewer pipeline.

## Scope of this Initial Study

In fall 2018, as soon as design of the 70 needed repairs included in the current program had proceeded far enough to evaluate the individual projects in a meaningful way, the City undertook an environmental screening process to identify the appropriate level of CEQA review for each of the repair projects and determine which if any would require permitting from outside agencies. Environmental screening took into account the nature of the repairs proposed for each segment (i.e., the construction/repair activities anticipated) as well as factors that can elevate the level of CEQA review required or necessitate permitting from outside agencies, such as proximity to jurisdictional habitat, sensitive biological resources, known archaeological resources, and sites with documented hazardous materials contamination. Repairs were evaluated as standalone projects since each repair would address a separate, specific problem with a known extent, and each repair would be worth undertaking even if other nearby repairs could not be completed for some reason—that is, each repair satisfies the tests for *logical termini* and *separate and independent utility*.[1]

[1] The concepts of *separate and independent utility* and *logical termini* are federally defined but are nonetheless useful in assessing whether activities potentially subject to CEQA can be evaluated separately or must be considered as part of a larger, combined undertaking.

The City's environmental screening identified a total of 5 repair projects addressing PACP Grade 5 defects for which CEQA review is warranted, listed below. The remaining Grade 5 defect repair projects were found to qualify for Class 1 categorical exemption from CEQA, per Section 15301 of the state's *CEQA Guidelines*.[2]

The following repair projects, which the City has determined will require CEQA review, are the focus of this IS/MND:

- **Segment 23** within Saratoga Avenue north of San Tomas Expressway: pipe lining to address a rupture in 10-inch-diameter VCP sewer pipe
- **Segment 29** within the parking lot at 1400 Kifer Road: pipe lining to repair corrosion of 24-inch-diameter VCP sewer pipe
- **Segment 30** within the parking lot at 1390 Kifer Road: pipe lining to repair corrosion of 24-inch-diameter VCP sewer pipe
- **Segment 31** within parking lot at 350 Oakmead Parkway and adjacent vacant lot: pipe lining to repair corrosion of 24-inch-diameter VCP sewer pipe[3]
- **Segment 35** extending beneath the Guadalupe River south of SR 237: grouting to repair leaking joint in 42-inch-diameter elliptical reinforced concrete (RCP) sewer pipe

At each location, existing sewer manholes would also be rehabilitated or replaced as needed. Manhole rehabilitation and replacement may take place in conjunction with sewer pipe repairs, or may be pursued separately at a future date, depending on funding and other constraints. For completeness, manhole rehabilitation and replacement are included in the activities analyzed in this Initial Study and covered in the attached proposed Mitigated Negative Declaration (Appendix D).

This Initial Study also analyzes the impacts of a potential future project on sanitary sewer Segment 12, which extends beneath San Tomas Aquino Creek about 350 feet north of Walsh Avenue. Here, the City's condition assessment program identified a Grade 5 defect where a seal between pipeline sections has shifted so a portion is intruding into the pipe and has the potential to obstruct flow. The City will be addressing the Grade 5 defect associated with the intruding seal as part of its routine maintenance program and has determined that this work qualifies for statutory exemption from CEQA, per CEQA *Guidelines Section* 15282[k].[4] However, this segment may be subject to inflow and infiltration (I&I) that would increase flows in the line and thus could present a potential operational issue. In the future, the City may wish to line the pipe and rehabilitate one of the

[2] The Class 1 categorical exemption (*CEQA Guidelines* 15301) covers "operation, repair, maintenance…or minor alteration of existing public or private structures [and] facilities… involving negligible or no expansion of use." Sewer facilities are explicitly identified in the *Guidelines* as a type of facility for which this exemption is appropriate. However, per *CEQA Guidelines* Section 15300.2, the use of categorical exemptions is subject to certain limitations; in particular, a categorical exemption cannot be used where there is a "reasonable possibility" the project would have a significant environmental effect due to "unusual circumstances" (*CEQA Guidelines* 15300.2[c]), if the project would be located on a site listed for hazardous materials contamination (*CEQA Guidelines* 15300.2[d], or if the project could "cause a substantial adverse change in the significance of a historical resource" (*CEQA Guidelines* 15300.2[e]).

[3] Segments 29, 30, and Segment 31 qualify as separate projects but for efficiency will be discussed and analyzed together in this Initial Study, since they are located on neighboring parcels.

[4] Section 21080.21 of the CEQA statute and Section 15282[k] of the *CEQA Guidelines* establish a statutory exemption from CEQA review for "installation of new pipeline or maintenance, repair, restoration, removal, or demolition of an existing pipeline" within a public street, highway, or other public right-of-way, as long as the project does not exceed 1 mile in length and does not involve surface facilities of any kind.

manholes associated with the segment to prevent I&I and has included review of pipe lining and manhole rehabilitation at Segment 12 in this Initial Study to streamline future execution of the project.

## Need for Projects

Sanitary sewer is an essential component of the services provided by the City for public health and welfare. Proper sewer function is critical to avoid potentially adverse public health and environmental consequences, including contamination of area watercourses as a result of leaks, spills, or overflows. The repair projects analyzed in this Initial Study are needed to address identified Grade 5 (significant) defects that threaten sewer system function, with the potential to impede flow and/or result in leaks, spills, and overflows. Carrying out the proposed repairs is consistent with the Water & Sewer Utility's mission to provide customers with environmentally sound wastewater collection, treatment, and disposal, fulfilling the City's responsibilities to area residents and businesses and moving the City toward meeting its obligations under the 2013 Settlement Agreement with River Watch.

## Project Goals and Objectives

The goal of the proposed repair projects at Segments 23, 29 – 31, and 35 is to remedy existing Grade 5 defects identified in recent City sanitary sewer condition assessments.

The goal of the proposed pipe lining at Segment 12 is to prevent future problems associated with I&I in this segment.

Specific project objectives include the following.

- Segment 23 (Saratoga Avenue): install approximately 100 lf of cured-in-place-pipe (CIPP) lining between Sanitary Sewer Manhole (SSMH) 14-62 and SSMH 14-63; rehabilitate SSMH 14-62; reconnect 2 existing sewer laterals that serve adjacent development off the east side of Saratoga Avenue
- Segments 29 – 31 (Kifer Road and Oakmead Parkway): install approximately 420 lf of CIPP lining between SSMH 62-51 and SSMH 62-40 and between SSMH 62-38 and 62-34; rehabilitate SSMHs 62-51 and 62-48; remove and replace SSMH 62-40
- Segment 35 (Guadalupe River): place infiltration grout to seal leaking joint between 2 pipe sections; rehabilitate SSMH 114-4, including replacement of frame and cover and modification of base and channels to restore integrity, prevent I&I, and improve flow conditions
- Segment 12 (San Tomas Aquino Creek): install 200 lf of CIPP lining in dual siphon lines between SSMH 64-34 and SSMH 64-36; rehabilitate SSMH 64-36

## Required Permits and Approvals

Table 1-1 at the top of the next page lists the permits and approvals that would be required to implement the proposed repair projects.

**Table 1-1. Required Permits and Approvals**

| Project | Permit/Approval | Issued By… | Required For… |
|---|---|---|---|
| Segment 23 | *No external agency permits required* | | |
| Segments 29 – 31 | May require encroachment permit | Santa Clara Valley Water District | Work within District right-of-way |
| Segment 35 | Rivers and Harbors Act, Section 10 | U.S. Army Corps of Engineers | Construction beneath navigable waters subject to Corps jurisdiction |
| | Clean Water Act Section 401 water quality certification | San Francisco Bay Regional Water Quality Control Board | All projects subject to federal permit requirements |
| | Encroachment permit | Santa Clara Valley Water District | Work within District right-of-way |
| Segment 12 | Encroachment permit | Santa Clara Valley Water District | Work within District right-of-way |

In addition to the approvals listed in Table 1-1, repairs at Segment 35 and CIPP lining at Segment 12 may also require the City to enter into a Streambed Alteration Agreement with the California Department of Fish and Wildlife (DFW). The City has submitted a formal *Notification of Lake or Streambed Alteration* to DFW and will proceed in accordance with DFW guidance. Additionally, although federal permitting will not be required for CIPP lining at Segment 12, and Section 401 water quality certification will therefore not be needed, the San Francisco Bay Regional Water Quality Control Board (RWQCB) has requested that the City provide a work plan detailing the measures that will be incorporated for water quality protection at this site. The City will submit the work plan before proceeding with CIPP lining. As discussed further under *Avoidance and Minimization Measures* in Section 2 of this Initial Study, the City has also incorporated a number of measures into the projects to protect sensitive habitats, water quality, and fish and wildlife at Segments 12 and 35.

## Native American Consultation

The state's *CEQA Guidelines* encourage early consultation with Native American tribes traditionally and culturally affiliated with the area where a proposed project will take place. Section 21080.3.1 of the CEQA statute, signed into law in 2015, requires lead agencies to consult with traditionally and culturally affiliated Native American tribes prior to the release of a CEQA document if (1) the tribe has requested, in writing, to be formally notified of projects, and (2) the tribe responds, in writing, within 30 days of receiving notification.

As of the date of preparation of this Initial Study, no tribes have requested formal notification from the City. However, the City routinely conducts outreach to local tribal entities for upcoming projects. As part of the cultural resources study conducted for the proposed project (Appendix C to this Initial Study), the City reached out to the Native American Heritage Commission to verify contacts for tribes traditionally and culturally affiliated with the project area, and has sent letters advising those contacts of the upcoming project and soliciting early comments and input on concerns related to tribal cultural resources. A search of the Native American Heritage Commission's Sacred Lands database was also requested. Results are detailed in Section 3 of this Initial Study under the headings *Cultural Resources* and *Tribal Cultural Resources* and discussed in detail in Appendix C.

## Public Circulation and Comment

The fundamental purposes of CEQA include improving information sharing and enhancing public participation in the planning process. CEQA accordingly requires lead agencies to circulate draft environmental documents for review and comment by other agencies and the public at large. This Initial Study is now being circulated for public and agency review. The review period begins on Friday June 21, 2019 and will conclude on Monday July 22, 2019.

**Contact for Comments on this Initial Study**

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Senior Civil Engineer
Public Works Department | City of Santa Clara
1500 Warburton Avenue
Santa Clara, CA 95050
vluchessi@santaclaraca.gov

Comments on this Initial Study may be provided via letter or email to the City's project manager at the contact to the right. **The deadline for receipt of comments is 5:00 PM, July 22, 2019.** As required by CEQA and the state's *CEQA Guidelines*, all comments received by the comment deadline will be considered by the City in making the decision about whether to adopt the proposed Mitigated Negative Declaration and proceed with the project.

## References Cited in this Section

City of San José. 2019. San José–Santa Clara Regional Wastewater Facility. Available: http://www.sanjoseca.gov/?nid=1663. Accessed: January 2019.

City of Santa Clara Water & Sewer Utility. 2014. Sewer System Management Plan. Available: http://santaclaraca.gov/government/departments/water-sewer-utilities/sewer-utility/sewer-system-management-plan-ssmp. Downloaded: January 2019.

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# 2

# Project Information

## Project Overview

| | |
|---|---|
| Project title: | Sanitary Sewer Condition Assessment Repairs |
| Lead agency name and address: | City of Santa Clara<br>Public Works Department<br>1500 Warburton Avenue<br>Santa Clara, CA 95050 |
| Project sponsor's name and address: | *Same as above* |
| Contact person and phone number: | Vincent Luchessi, PE<br>Senior Civil Engineer<br>408.615.3048 |
| Project location: | This IS/MND analyzes the effects of several projects under the current phase of the City's Sanitary Sewer Condition Assessment Repairs Program, located as follows:<br>• Segment 23—within Saratoga Avenue north of San Tomas Expressway<br>• Segments 29, 30, and 31—within parking lots at 1400 Kifer Road, 1390 Kifer Road, and 350 Oakmead Parkway<br>• Segment 35—extending beneath the Guadalupe River approximately 200 feet south of SR 237 and immediately east of the City's Eastside Stormwater Retention Basin<br>• Segment 12—extending beneath San Tomas Aquino Creek approximately 350 feet north of Walsh Avenue<br>Figure 1 shows the general locations of the projects analyzed in this IS/MND |
| General Plan land use designation: | • Segment 23—within Saratoga Avenue right-of-way; area to northwest is designated Community Mixed Use and area to east/southeast is designated Parks/Open Space, Very Low Density Residential, and Medium Density Residential<br>• Segments 29, 30, and 31—Industrial Park (Segments 29, 30), Low Intensity Office / R&D (Segment 31) |

- Segment 35—largely within Guadalupe River Park; westernmost end is within area designated Urban Village and easternmost end is within area designated Residential Neighborhood San Jose
- Segment 12—largely within area designated Parks / Open Space; east end of alignment in NVIDIA parking lot is within area designated High Intensity Office / R&D

Zoning:

- Segment 23—within Saratoga Avenue right-of-way; area to northwest is zoned Community Commercial and area to east/southeast is zoned Public or Quasi Public and Planned Development
- Segments 29, 30, and 31—General Industrial (Segments 29, 30), Light Industrial (Segment 31)
- Segment 35—largely within area zoned Public or Quasi Public; easternmost end is within area zoned Agricultural & Planned Development
- Segment 12—largely within Santa Clara Valley Water District right-of-way along San Tomas Aquino Creek; east end of alignment in NVIDIA parking lot is zoned Planned Development

# Project Settings

## Segment 23

Segment 23 is located within Saratoga Avenue immediately north of San Tomas Expressway (Figure 1, Figure 2a). On the west side of Saratoga Avenue adjacent to the Segment is Pruneridge Shopping Center, anchored by a Lucky grocery store and offering a Starbucks, a Citibank, and a Union 76 gas station along with other businesses. Pruneridge Golf Club, a private facility with a 9-hole course and driving range, is north of the shopping center on the west side of Saratoga Avenue. On the east side of Saratoga Avenue is an area of low- to medium-density residential development abutting Parkway Park to the south. The surrounding area is dominated by suburban residential and local commercial uses. Vegetation in the vicinity of Segment 23 is restricted to landscaping, which includes species such as olive (*Olea europaea*) trees, hawthorne (*Crataegus* sp.) shrubs, and junipers (*Juniperus* sp.), as well as mature coast live oak (*Quercus agrifolia*) trees.

The existing sewer pipe at Segment 23 consists of 10-inch-diameter VCP installed at a depth of approximately 7 – 9 feet below ground surface. City SSMH 14-62 (approximate depth 8.7 feet) is located at the west end of the Segment and City SSMH 14-63 (approximate depth 6.7 feet) is located at the east end of the Segment.

## Segments 29 – 31

Segments 29, 30, and 31 are located within paved parking lots at 1400 Kifer Road, 1390 Kifer Road, and 350 Oakmead Parkway (Figure 1, Figure 2b, Figure 2c), in an area dominated by industrial, light industrial, R&D, and office uses. Vegetation in the immediate vicinity of the alignments—and in the surrounding area—is almost entirely restricted to office park landscaping. Trees at Segment 29 are primarily introduced crepe-myrtle (*Lagerstroemia* sp.). Trees and shrubs at Segments 30 and 31 also represent introduced landscape species, including non-native pines (*Pinus* sp.), olive trees, and oleander (*Nerium oleander*) shrubs. Calabazas Creek runs approximately north-south at the west edge of the parking lots with the Calabazas Creek Trail at top of bank. The Trail is separated from 1400 and 1390 Kifer Road by a wall and a planting strip, and from 350

Oakmead Parkway by a thick hedge planting. This reach of Calabazas Creek has been extensively modified for flood protection and occupies a hardscaped trapezoidal channel that supports minimal vegetation, limited to areas where sediment is present.

The existing sewer pipe at Segments 29 – 31 consists of 24-inch-diameter RCP installed at depths of approximately 11 – 15 feet below ground surface. Several manholes are present within these Segments: City SSMHs 62-51 (approximate depth 10.8 feet), 62-48 (approximate depth 10.1 feet) , 62-40 (approximate depth 14.4 feet), 62-38 (approximate depth 14.2 feet), and 62-34 (approximate depth 14.7 feet).

## Segment 35

Segment 35 crosses beneath the Guadalupe River about 200 feet south of the SR 237 bridge (Figure 1, Figure 2d). To the immediate west of Segment 35 is the City's Eastside Retention Basin, which receives and stores stormwater from Calle del Mundo, Calle del Luna, the Fairway Glen neighborhood, and the area south of Tasman Drive for gradual discharge into the Guadalupe River. The Santa Clara Police Activities League BMX track abuts the Eastside Retention Basin to the south, at 5401 Lafayette Street. The area east of Segment 35 is dominated by high-density residential uses, including the Oak Crest Estates and Lamplighter San Jose mobile home parks, and farther south, several apartment and condominium complexes.

Segment 35 is within the extent of the historic baylands, although much of the surrounding area has been developed or otherwise substantially modified. The Guadalupe River itself has been channelized and leveed for flood protection in this vicinity but still provides tidally influenced open channel and marshland habitat. Vegetation in marshlands at Segment 35 includes native alkali bulrush (*Bolboschoenus maritimus*), California bulrush (*Schoenoplectus californicus*), and western goldenrod (*Euthamia occidentalis*), non-native common plantain (*Plantago major*), and limited stands of native pickleweed (*Salicornia pacifica*). Levee slopes are dominated by non-native wild oat (*Avena fatua*), wild teasel (*Dipsacus fullonum*), and wild radish (*Raphanus sativus*). Vegetation in uplands outboard of the levee slopes includes native coyote brush (*Baccharis pilularis*) along with non-native blue gum (*Eucalyptus globulus*), smilo grass (*Stipa miliacea*), wild radish, bristly ox-tongue (*Helminthotheca echioides*), broadleaf pepperweed (*Lepidium latifolium*), Italian cypress (*Cupressus sempervirens*), and prickly wild lettuce (*Lactuca serriola*).

Two parallel sewer pipes are present at Segment 35: a 45-inch-diameter VCP line on the north and a 42-inch-diameter RCP line on the south. The proposed repairs would involve the 42-inch-diameter RCP (south) pipe, which is at a depth of approximately 15 – 16 feet below ground surface; no defects have been identified in the north pipe. City SSMH 114-5 (approximate depth 15 feet) is located on the 42-inch-diameter pipe at the west end of the Segment and City SSMH 114-4 (approximate depth 16.4 feet) is located on the 42-inch-diameter pipe at the east end of the Segment.

## Segment 12

Segment 12 crosses beneath San Tomas Aquino Creek about 350 feet north of Walsh Avenue (Figure 1, Figure 2e), extending from the San Tomas Aquino Creek Trail adjacent to the west bank of the Creek to the parking lot of the NVIDIA facilities at 2788 San Tomas Expressway, east of the Creek. The surrounding area is developed in light industrial / R&D uses. The Creek has been channelized for flood protection and occupies a trapezoidal earthen channel dominated by weeds, grasses, and light riprap placed for bank stabilization. The channel itself appears to be regularly scoured by floodflows (see Vollmar Natural Lands Consulting 2019). As of January 2019, a few individuals of native broadleaf cattail, arroyo willow (*Salix lasiolepis*) saplings, panicled bulrush (*Scirpus microcarpus*), and soft rush (*Juncus effusus*) were present. Along the channel margins, the introduced Canary Island date palm (*Phoenix canariensis*) and Bermuda grass (*Cynodon dactylon*) were observed. Very

little riparian vegetation is present in the immediate vicinity of Segment 12; vegetation on channel banks and in adjacent upland areas is dominated by non-native species, including Harding grass (*Phalaris aquatica*), shamel ash *(Fraxinus uhdei*), oleander, common fennel (*Foeniculum vulgare*), smilo grass, and wild radish. Landscaping is present in planter areas associated with adjacent development.

Segment 12 comprises a dual siphon consisting of parallel VCP lines installed at a depth of approximately 9 – 10 feet below ground surface. The north pipe is 15-inches in diameter and the south pipe is 8-inches in diameter. City SSMH 64-34 (approximate depth 9.4 feet) is located at the junction between the 8-inch- and 15-inch-diameter pipes at the west end of the Segment and City SSMH 64-36 (approximate depth 9.8 feet) is located on the 8-inch-diameter pipe at the east end of the Segment.

# Project Description

## Repair Methods

As identified in Section 1 of this IS/MND and shown schematically in Figures 2a through 2e, Segments 23, 29 – 31, and 12 are planned for CIPP lining. The leaking joint at Segment 35 would be repaired via infiltration grouting. Where needed, existing manholes would be rehabilitated or removed and replaced, as indicated on Figures 2a – 2e. At Segment 23, 2 existing sewer laterals serving development east of Saratoga Avenue would also need to be reconnected following the repairs.

The following sections provide detail on the activities, equipment, and staffing associated with each repair method. All work would be conducted in a manner consistent with the City's Standard Specifications for Public Works Construction (available online at http://santaclaraca.gov/government/departments/public-works/engineering/technical-documents) as well as project-specific requirements discussed further in *Avoidance and Minimization Measures* below.

### CIPP Lining

Accessing the pipe via existing manholes, a resin-saturated felt liner is inserted into the interior of the pipe and extended through the repair segment using air or water pressure. The resin is then cured in place using steam, hot water, or UV light. Once the resin is cured, the liner essentially forms a new, structurally independent "pipe within a pipe" that restores the integrity of a previously compromised segment.

Resin and curing method are selected based on the application and the work setting. In general applications, styrene-based polyester resin or vinyl ester resin are the conventional approaches. Where these are not appropriate (for instance, where curing steam may migrate to streams or other water bodies), the styrene in the unsaturated polyester or vinyl ester resin can be replaced with a non-styrene alternative; numerous options are available for environmentally responsible solutions. Hot water curing is typically preferred over steam curing for CIPP lining of larger diameter pipes because of the difficulty and cost of maintaining adequate steam pressure in larger pipes.

**Table 2-1. Typical Equipment and Contractor Staffing for CIPP Lining**

| Equipment | Staffing |
|---|---|
| 1 crew truck (Ford 450 or similar) | 1 foreman |
| 1 cleaning/jetting/CCTV truck | 1 boiler operator |
| 1 boiler (resin) truck | 3 – 4 additional workers |
| 1 steam/equipment truck | |

| Equipment | Staffing |
|---|---|
| 1 backhoe[a] | |
| 1 Vac-Con dual engine truck-mounted combination sewer cleaning machine or similar | |
| 2 sewage/trash pumps (Honda 4-inch 433 gallons per minute or similar) | |
| 1 – 2 generators (Kohler 500 REOZT or similar) | |

[a] *No excavation would take place; backhoe is for general use*

## Infiltration Grouting

In general applications, infiltration grouting is performed remotely. Accessing the pipe via an existing manhole, a small remotely guided packer device is inserted into the pipe and pulled into position at the leaking joint or pipe defect. Controlled by an operator at the surface, the packer then pumps chemical grout under pressure into areas with leaks, filling holes in the pipe and stabilizing soil outside the leak. Once the grout is in place, it is cured by pumping a curing compound to harden the grout. The packer is equipped with annular seals at each end to maintain adequate pressure and contain grout within a short, localized segment of the pipe.

At Segment 35, the large diameter of the existing pipe will permit grout to be injected by contractor staff working from within the pipe ("confined space entry" conditions).[1] Staff will access the pipe via an existing manhole (either City SSMH 114-5 west of the Guadalupe Creek Trail near the Eastside Retention Basin, or City SSMH 114-4 adjacent to the ouboard toe of the Guadalupe River east levee; see Figure 2d). Grout will then be injected under pressure into the leaking joint to form a seal and stabilize the soil immediately surrounding the leaking joint, following by a curing compound to harden the grout.

**Table 2-2. Equipment and Contractor Staffing for Confined Space Entry Infiltration Grouting**

| Equipment | Staffing |
|---|---|
| 1 crew truck (Ford F450 or similar) | 1 foreman/operator |
| 1 cleaning/jetting/CCTV truck | 2 workers |
| 1 grout truck | |
| Miscellaneous hand tools | |

Construction within confined spaces carries particular hazards and is strictly regulated by the state's Division of Occupational Safety and Health (Cal/OSHA) (see https://www.dir.ca.gov/Title8/5158.html). Among Cal/OSHA's requirements, all staff involved must receive specialized training, air quality within the space must be tested prior to entry and monitored and controlled during work, and additional precautions such as the use of a safety belt with a tether line secured outside the entry opening may be required, along with the presence of standby "topside" staff who are trained and equipped to provide emergency if assistance in the event it is required. If conditions inside the confined space require the use of respiratory protective equipment, or if the standby staff cannot visually monitor the workers inside the space, a reliable means of communication must be provided

[1] For construction purposes, the state's Division of Occupation Safety and Health (Cal/OSHA) defines a *confined space* as one where existing ventilation is insufficient to remove dangerous air contamination, oxygen enrichment, and/or oxygen deficiency, and where ready access to remove a suddenly disabled employee is difficult due to the location and/or size of the openings (California Code of Regulations Subchapter 7, Group 16, Article 108, Section 5158[b][1]).

between the confined space and standby staff. Infiltration grouting at Segment 35 will be conducted in accordance with Cal/OSHA requirements for construction work in confined spaces.

## Manhole Rehabilitation

For the manholes that are structurally sound and otherwise functional—SSMH 14-62 on Segment 23, SSMH 62-51 on Segment 29, SSMH 62-48 on Segment 30, and SSMH 64-36 on Segment 12—manhole rehabilitation is expected to be limited to the application of a quick-curing spray-on liner designed to prevent I&I. Various types of spray-on liners are available; widely used options include epoxies (e.g., http://www.madewell.net/manhole-rehabilitation.html) and Sewpercoat, which is a calcium aluminate substance similar to concrete (http://www.kerneosinc.com/sewpercoat.php). With epoxy liners, grout may be used to repair larger holes, and a primer is typically required to prepare the surface and maximize adhesion. The liner is applied from the interior of the manhole by contractor staff working under confined space entry conditions.

Several of the manholes on the project Segments require more extensive repairs. At the east end of Segment 35, SSMH 114-4 will undergo replacement of the manhole frame and covers, and the base and channel will be modified or replaced improve flow. SSMH 62-40 on Segment 30 will be removed and replaced in its entirety. At both of these locations, localized excavation will take place to access the components requiring replacement, and heavy equipment will be used to install the new components.

Table 2-3 provides an overview of the equipment and staffing for each scenario: spray-on liner rehabilitation, partial replacement, and complete removal and replacement.

**Table 2-3. Typical Equipment and Contractor Staffing for Manhole Rehabilitation and Replacement**

| Equipment | Staffing |
|---|---|
| **Spray-On Liner Application:** | 2 – 3 persons |
| 1 crew truck (Ford F450 or similar) | |
| 1 tripod and harness for manhole entry | |
| 1 Bobcat or backhoe | |
| 1 air compressor | |
| 1 generator | |
| **Frame and Channel Modification/Replacement:** | 3 – 5 persons |
| 1 crew truck (Ford F450 or similar) | |
| 1 walk-behind saw for pavement cutting | |
| 1 backhoe | |
| 1 Bobcat | |
| 1 “10-wheeler” (10 cubic–yard dump truck) | |
| **Manhole Removal and Replacement:** | 3 – 5 persons |
| 1 crew truck (Ford F450 or similar) | |
| 1 walk-behind saw for pavement cutting | |
| 1 backhoe | |
| 1 loader | |
| 1 Bobcat | |
| 1 10-wheeler | |

## Contractor Staging

For repairs at each Segment, equipment and materials would be staged at a location selected by the contractor. The construction documents (bid package) for each Segment will include stipulations for staging, to reduce the potential for disruption due to the presence of materials and equipment. Additional limitations will apply to the Segments adjacent to watercourses (Segments 29 – 31, 35, and 12) in order to protect water quality and sensitive habitat; these are discussed further in *Avoidance and Minimization Measures* below.

## Repair Schedule and Work Hours

Table 2-4 summarizes the anticipated work durations and deadlines for completion of the proposed sewer pipe repair projects (CIPP and infiltration grouting). Manhole rehabilitation would add approximately 2 days to the work duration and manhole replacement would add 2 – 3 days.

**Table 2-4. Anticipated Schedule**

| Proposed Repair | Construction Duration | Construction Completion Deadline |
|---|---|---|
| Segment 23 CIPP | 3 days | January 9, 2020 |
| Segments 29 – 31 CIPP | 8 days total (all 3 Segments) | Segment 29 – February 17, 2020<br>Segment 30 – February 18, 2020<br>Segment 31 – February 22, 2020 |
| Segment 35 infiltration grouting | 3 days | March 21, 2020 |
| Segment 12 CIPP | 5 days | Repair of dangling joint seal must be complete by August 10, 2019<br>CIPP lining is planned for a separate future project with timing to be determined |

City construction hours are typically 7:00 AM – 5:00 PM Monday through Friday, except for holidays, although night work may be necessary to avoid disrupting traffic flow on busy Saratoga Avenue where Segment 23 is located. The sewer main planned for repair here is within a vehicle travel lane, and the City requires all travel lanes to remain open during the peak commute hours (6:00 – 9:00 AM and 3:30 – 7:00 PM). Individual lane closures are permitted between 9:00 AM and 3:30 PM, as long as 2-way traffic is maintained. However, it may be more efficient and less disuptive to conduct work at this location between 7:00 PM and 7:00 AM. The City will also consider night work to avoid traffic conflicts in parking lot areas (Segments 29 – 31, Segment 12) and/or to avoid disturbance to trail users (Segments 12 and 35).

## Project Noticing and Signage

### Noticing

The City's Standard Specifications for Public Works Projects require advance written notice to residents and businesses with street frontage or property affected by the proposed construction. For the proposed projects discussed in this Initial Study, the City will require 7-day and 48-hour advance notice to the following parties.

- All residents and businesses on City blocks where work will be occurring
- Garbage, recycling, and tree trimming haulers serving the project areas
- The Santa Clara Unified School District and the principals of public and private schools in proximity to the project Segments

Contractor(s) will be required to coordinate their work so that it does not interfere with garbage and recycling pick-up days or school drop-off and pick-up schedules. The contractor(s) will also be required to provide the City's Police Department and Fire Department with 7-day and 48-hour advance notice for each of the projects.

Notices will provide the following information.

- Nature and extent of proposed work
- Time and date work is planned to begin
- Anticipated completion date
- Contractor's name, address and telephone contact

### Signage

The City's Standard Specifications for Public Works Construction will require the contractor(s) carrying out the repair work to post large, easily visible signage identifying the project at each active work site. Information on the sign will include the name of the project, anticipated dates of work, and the relevant City and contractor contacts.

## Avoidance and Minimization Measures

To avoid and reduce potential environmental impacts, the City will require the contractor(s) to implement a number of measures during repair work, summarized below. These Avoidance and Minimization Measures will be incorporated into the project construction document packages so they become contractually binding on the contractor(s) selected to carry out the proposed repairs. As identified in the text that follows, some of the measures will apply to all Segments discussed in this IS/MND, and some are specific to a particular Segment or Segments. For instance, a number of measures apply only for work in proximity to sensitive creek habitat at Segments 29 – 31, 35, and 12.

### Construction Window

At all Segments, the proposed repair work will be carried out between September 1 and January 31 if possible, avoiding work during the bird nesting season.

If it is feasible while still meeting the City's construction deadlines under the 2013 River Watch Settlement Agreement, construction at Segment 35 will be timed to occur outside critical windows for special-status species protection, as follows.

- Segment 35: if feasible, repair work will take place between September 1 and October 15 to avoid the nesting season for Tricolored Blackbird, California Black Rail, and California Ridgway's Rail as well as the fall salmonid run in the Guadalupe River

If construction cannot be timed as stipulated above, additional measures will be required to avoid impacts on nesting birds and special-status species (see mitigation identified under *Biological Resources* in Section 3 of this Initial Study).

### Worker Awareness Training – Special-Status Species and Sensitive Habitats

Prior to groundbreaking at Segments 29 – 31, 35, and 12, the City will retain a qualified biologist or ecologist (City's Biologist) with construction site experience and experience delivering training to non-specialists to

provide worker awareness training regarding special-status species and sensitive/jurisdictional habitats. Training will be site-specific and will cover the following topics.

- Sensitive habitats on and near the work area
- Water quality protection requirements per *Water Quality Protection* below
- Special-status fish, amphibian, reptile, bird, and mammal species that may be present, where they have the greatest potential to occur, and how to recognize them
- Procedures in the event of a sighting, per *Special-Status Species Sighting – Contractor Staff Response* below

The matrix below identifies the species that will be included in worker awareness training at each Segment.

| Species | Included in Segment Training | | |
|---|---|---|---|
| | 29 – 31 | 35 | 12 |
| **Fishes** | | | |
| White sturgeon *Acipenser transmontanus* | | ■ | |
| Steelhead *Oncorhynchus mykiss irideus* | | ■ | |
| Chinook salmon *Oncorhyncus tshawytscha* | | ■ | |
| **Amphibians and Reptiles** | | | |
| Southwestern pond turtle *Actinemys pallida (marmorata)* | | ■ | ■ |
| California red-legged frog *Rana draytonii* | | ■ | |
| **Mammals** | | | |
| Pallid bat *Antrozous pallidus* | | ■ | |
| Western red bat *Lasiurus blossevillii* | | ■ | |
| Salt-marsh harvest mouse *Reithrodontomys raviventris* | | ■ | |
| Salt-marsh wandering shrew *Sorex vagrans halicoetes* | | ■ | |

| Species | Included in Segment Training | | |
|---|---|---|---|
| | 29 – 31 | 35 | 12 |
| **Birds** | | | |
| Tricolored Blackbird *Agelaius tricolor* | | ■ | |
| Western Burrowing Owl *Athene cunicularia hypugea* | | ■ | ■ |
| Great Blue Heron *Ardea herodias* | | ■ | |
| Saltmarsh Common Yellowthroat *Geothlypis trichas sinuosa* | | ■ | |
| California Black Rail *Laterallus jamaicensis coturniculus* | | ■ | |
| Alameda Song Sparrow *Melospiza melodia pusillula* | | ■ | |
| California Ridgway's Rail *Rallus obsoletus obsoletus* | | ■ | |
| Nesting birds in general will be included if construction takes place between February 1 and August 31 | ■ | ■ | ■ |

A leave-behind "alert sheet" will be provided. This will be a straightforward illustrated guide to recognizing the special-status species with the greatest potential to be present, with contact information and procedures in the event of a sighting.

All contractor staff working at Segments 29 – 31, 35, and 12 will be required to attend the training. If construction occurs during the nesting season at Segment 23, training will also be required for contractor staff at that Segment, focusing on general nesting bird protection. Attendance will be documented and attendees will be required to sign a form stating that they understand the requirements for special-status species and sensitive habitat protection and will comply with them. If requested by the contractor, training and alert sheet will be delivered bilingually in English and Spanish (or other languages as needed).

## Special-Status Species Sighting – Contractor Staff Response

In the event of a known or potential sighting of special-status wildlife in or near the work area, the following requirements will apply.

- Contractor staff will avoid the animal and will immediately notify the City's Biologist, who will advise them on how to proceed
- If warranted in the judgment of the City's Biologist, the biologist will respond onsite to relocate the animal or assist in implementing other protective measures; depending on the situation and the species involved, the City's Biologist may also consult with agency (DFW and/or USFWS) staff
- If the sighting is confirmed by the City's Biologist, the species and location will be reported to DFW for inclusion in the CNDDB. The City's Biologist will be responsible for making the report

## Water Quality Protection

The following measures apply to Segments 29 – 31, 35, and 12, which would require work in proximity to streams.

- Surface activity within riparian, wetland/marshland, and open channel areas will be prohibited. Prior to mobilization for construction at the Segments identified above, the City will retain a qualified biologist/ecologist (City's Biologist) to delineate areas of sensitive habitat to be avoided. The boundary is presumed to be located as follows, but may be adjusted in the field by the City's Biologist, based on site observations at the time of construction
    - Segments 29 – 31: at the existing fenceline along the west side of the 1400 Kifer Road, 1390 Kifer Road, and 350 Oakmead Parkway parking lots
    - Segment 35: on the levee crest, adjacent to the inboard edge of the Guadalupe River Trail (both banks of the River)
    - Segment 12: on the west side of San Tomas Aquino Creek adjacent to the inboard edge of the San Tomas Aquino Creek Trail and on the east side of the Creek along the west edge of the paved parking lot at 2788 San Tomas Expressway

  Where Santa Clara Valley Water District (District) right-of-way or other fencing is present, reminder signage/noticing to contractor staff, posted at the existing District fence, will be adequate to define the exclusion boundary. Where no signage is present, avoidance areas will be delineated using temporary construction fencing, pin flags, or another appropriate, low-impact medium installed by or under the direct supervision of the City's Biologist. No entry (personnel, equipment, or materials) will be permitted into the delineated avoidance areas
- For the duration of work, the City's Biologist will conduct daily site visits to verify that the exclusion perimeter and other measures described below are in place and functioning properly

- Non-styrene resins will be used for CIPP lining at Segments 29 – 31 and Segment 12
- Grout used at Segment 35 will be NSF/ANSI 61 – certified[2] and will be installed by contractors certified by the grout supplier for installation
- No water used in CIPP installation and curing will be discharged to storm drains, watercourses, or overland
- If ground disturbance is required (for example, for rehabilitation of Manhole 114-4 at the east end of Segment 35), runoff control measures such as straw wattles, filter rolls, filter fences, or silt fences will be installed to contain disturbed soil materials. Runoff control will be in place prior to groundbreaking. If straw wattles are used, they will consist of certified sterile, weed-free rice straw or similar, suitable for use in sensitive habitat. If filter fences or mesh are used, they will consist of materials, and employ a design, approved by DFW and USFWS as safe for amphibians and reptiles
- Where ground disturbance occurs in a paved area (Segment 30), pavement will be restored immediately following the completion of repairs
- Where ground disturbance occurs in a vegetated area (Segment 35), the disturbed area will be reseeded immediately following the completion of repairs, using a certified weed-free native species seed mix appropriate to the site
- Excavated materials will be stockpiled away from sensitive habitat, in areas that are relatively level, and relatively free of vegetation. Stockpiles will be located as far as reasonably feasible from the limits of sensitive habitat, and runoff control measures as described above will be used to prevent delivery of sediment to wetlands and watercourses. If wattles are used, they will consist of certified sterile, weed-free materials, as identified above. Any excavated materials not reused on site will be promptly removed to appropriate permanent disposal locations following the completion of repairs
- Demolition debris such as concrete and asphalt cuttings and manhole components will be promptly removed from the work area for proper disposal and will not be discharged into drain inlets, the storm water drainage system, or watercourses
- All diesel- and gasoline-powered construction equipment and tools, including generator units, will be inspected for leaks and damage prior to mobilization
- No fueling, lubrication, maintenance, or staging of vehicles or equipment will take place within unpaved areas. Fueling will be conducted at least 200 feet from wetlands and waterways. Equipment staging will be located at least 150 feet away from riparian and wetland/marshland areas. If onsite fueling, maintenance, or repairs are required, containment measures such as drip pans will be required
- Materials staging will also be restricted to paved, surfaced, or upland areas away from wetlands and watercourses
- Preparation (resin saturation) of the felt CIPP liners and grout will be restricted to paved, surfaced, or upland areas away from watercourses

[2] NSF/ANSI 61 establishes certification criteria qualifying materials for use in potable water treatment and distribution. This is the standard all public potable water supply systems are held to in California (see http://www.nsf.org/services/by-industry/water-wastewater/municipal-water-treatment/nsf-ansi-standard-61/, https://www.waterworld.com/articles/2008/03/california-adopts-nsf-ansi-standard-61-more-stringent-standard-60.html).

- If stationary diesel- or gasoline-powered equipment is needed (for example, generators to power light units for night work), it will be situated in a paved area if possible, and will be placed within secondary (dual) containment
- Appropriate types and quantities of materials will be maintained onsite to contain any spills or releases of materials and prevent them from entering sensitive habitat and jurisdictional waters
- In the event of a spill, appropriate spill response procedures will be initiated as soon as the incident is discovered. The contractor will be required to notify City staff as soon as feasible, and in no case more than 24 hours after the occurrence. A designated City contact will be specified in the project construction documents for this purpose. If there is any potential for the spill to enter jurisdictional waters, the City will notify the RWQCB
- Trash generated during repair and rehabilitation activities will be promptly and properly removed from the site

## Air Quality Protection

### Dust Control

To reduce dust generation, the following measures will be required when excavation or ground disturbance is necessary.[3] These measures are based on the Bay Area Air Quality Management District's *Basic Construction Mitigation Measures* (Bay Area Air Quality Management District 2017a).

- All exposed surfaces and soil stockpiles will be watered 2 times per day
- All haul trucks transporting soil, sand, or other loose material offsite will be covered
- All visible mud or dirt track-out onto adjacent public roads will be removed using wet power vacuum street sweepers at least once per day. Use of dry power sweeping will be prohibited
- All vehicle speeds on unpaved roads will be limited to 15 miles per hour
- If pavement is removed, it will be replaced as soon as possible.
- Vegetated areas disturbed during construction will be replanted/reseeded as soon as possible.
- Idling times will be minimized, either by shutting equipment off when not in use or by reducing the maximum idling time to 5 minutes. Clear notification will be provided to all equipment operators regarding limitation on idling times
- All construction equipment will be maintained and properly tuned in accordance with manufacturer specifications. All equipment will be checked by a certified mechanic and determined to be running in proper condition prior to operation
- Project signage will include the name and telephone number of City staff to contact regarding dust complaints. City staff will respond and take corrective action within 48 hours. Project signage will also include the BAAQMD's phone number to ensure compliance with applicable regulations

### Toxic Air Contaminants Control

[3] Excavation/ground disturbance is currently anticipated only at Segment 23 (to reconnect existing sewer laterals with the repaired main in Saratoga Avenue), Segment 30 (for removal and replacement of SSMH 62-40), and Segment 35 (for rehabilitation of SSMH 114-4).

To reduce the potential for exposure to toxic air contaminants during CIPP lining, the following measures will be required.

- If steam curing is used, the steam exhaust will be located at least 100 feet from residences and at least 100 feet from commercial/business park entry areas and heating, ventilation, and air conditioning system air intakes. If this is not feasible, an alternative curing method and/or non-styrene resins will be used
- Adjacent residences and businesses will be notified at least 1 week prior to the start of work. Notification will include the following information:
  - Anticipated work dates
  - An overview of the repair process, including the substances proposed for use
  - Name, phone number, and email address of the City staff member who will be responsible for answering questions and receiving and responding to reports of odors or health concerns

These measures will apply to repairs at all project Segments where CIPP lining occurs.

## Hazardous Materials Contamination

Work at all project Segments will be subject to the following requirement.

- **Hazardous Materials Response.** In the event known or suspected hazardous materials are encountered during project construction, work in the vicinity of the find will be suspended until qualified staff (i.e., staff meeting the Environmental Professional qualifications in ASTM E1527-13) retained by the City can assess the nature of the find and stipulate appropriate follow-up and protective measures. Work may proceed elsewhere, assuming the discovery appears to be localized. If qualified staff consider it warranted, the City will conduct a Phase II hazardous materials investigation or appropriate equivalent procedure to determine the nature and extent of contamination, evaluate potential risks, and, if appropriate, stipulate additional precautions and/or response measures. Construction in areas of known and potential contamination will not resume until the measures stipulated by qualified staff are implemented. If waste disposal is necessary, materials will be handled and disposed of by a licensed waste-disposal contractor and transported by a licensed hauler to an appropriately licensed and permitted disposal or recycling facility, in accordance with local, state, and federal requirements. The project contract documents will stipulate contractor responsibilities in accommodating and assisting with the implementation of these commitments.

Work at Segments 23 and 29 – 31 will also be subject to the following additional requirements.

- **Soil Vapor and Contaminated Soil/Groundwater Protection.** If excavation or other ground disturbance is required, the contractor will be required to prepare and submit a Health and Safety Plan (HASP) for worker and public safety during work at Segments 23, 29, 30, and 31.[4] The HASP will be subject to City review and approval, and at a minimum will include the following requirements.

[4] At present, HASPs are expected to be necessary only at Segment 23, where excavation would be required to reconnect existing sewer laterals to the repaired sewer main, and at Segment 30, where existing SSMH 62-40 would be removed and replaced. No ground disturbance or excavation is anticipated at Segments 29 and 31, but they have been included in the measure for completeness, since there is potential for contamination at these locations (see *Hazards & Hazardous Materials* in Section 3).

- Public access to the active work site will be prohibited
- Contractor employees working onsite will be certified in OSHA's 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) training
- During excavation at Segment 30, contractor staff will be required to wear appropriate Personal Protective Equipment (PPEs) and the contractor will be required to employ best practices to minimize human exposure to potential contaminants, consistent with applicable federal and state requirements
- Contractor will sidecast and stockpile excavated materials to allow for proper characterization and evaluation of disposal options. Soil will be watered or misted during excavation to control fugitive dust, and will be stockpiled in areas shielded to the extent feasible from prevailing winds. Stockpiles will be misted or covered to control dust. Public access to the stockpile area will be prohibited
- Excavated materials will be tested for contaminants. If soils will be reused onsite as fill, testing will follow a protocol consistent with guidance of the California Department of Toxic Substances Control (DTSC) (e.g., Information Advisory: Clean Imported Fill Material, available: https://www.dtsc.ca.gov/Schools/upload/SMP_FS_Cleanfill-Schools.pdf). If soils are to be disposed offsite, testing will follow California hazardous waste testing and disposal protocols.
- If testing of excavated materials indicates any contaminant levels in excess of applicable limits, excavated materials will be handled and disposed of by a licensed waste-disposal contractor and transported by a licensed hauler to an appropriately licensed and permitted disposal or recycling facility, in accordance with local, state, and federal requirements. Contractor will water/mist soil as it is being loaded onto haul trucks to control dust, and haul trucks will be covered to control fugitive dust and vapor emissions during transport
- Soils with any contaminant level exceeding the applicable Regional Water Quality Control Board (RWQCB) Environmental Screening Level threshold will not be reused onsite
- At Segment 30, if excavations remain open over night, the contractor will cover the bottom of excavated areas with vapor-restrictive sheeting when work is not being performed
- At Segment 30, the contractor will monitor ambient air in the trench and around the perimeter of the active work area for fugitive vapor emissions, using appropriate field screening instrumentation. If any contaminant level in excess of applicable California Division of Occupational Safety and Health (Cal/OSHA) Permissible Exposure Levels is detected, worker PPEs will be required to include inhalation protection meeting Cal/OSHA standards, and/or work will be suspended until airborne concentrations decrease below the action threshold, as verified by ambient air monitoring. If contaminant levels in excess of applicable action thresholds for public exposure (RWQCB Environmental Screening Levels, or action levels derived based on DTSC/U.S. Environmental Protection Agency risk-based screening levels) are detected at the perimeter of the work area, vapor mitigation measures such as foams will be used to reduce volatilization
- No discharge to storm drains will be permitted. If dewatering is required, water removed from the excavation will be tested onsite for contamination prior to discharge. If contaminant levels in excess of the applicable action level per the contractor's discharge permit are detected, water will either be treated onsite using an activated carbon filter or appropriate alternative

prior to discharge to sanitary sewer, or will be removed from the site for appropriate offsite disposal. Filtration and offsite disposal options will be delineated in the HASP for City review

- The sampling and testing protocols and results of soil and groundwater testing will be reported to the RWQCB for inclusion in their Geotracker database

### Operations & Maintenance after Repair Completion

The proposed repairs at Segments 23, 29 – 31, and 35 are intended to repair major sewer defects and restore these Segments to full and reliable function. CIPP lining at Segment 12 is intended to avert potential future I&I problems and prevent exfiltration (leakage) from the sewer pipe. Normal operations would resume at all Segments following repair work. Maintenance of the repaired Segments is not expected to be needed in the immediately foreseeable future; the lifespan of the CIPP lining is predicted to be on the order of 50 years and that of infiltration grout repairs can exceed 20 years (National Association of Sewer Service Companies 2019a, 2109b). Spray-on manhole liners are also expected to have a useful service life of multiple decades.

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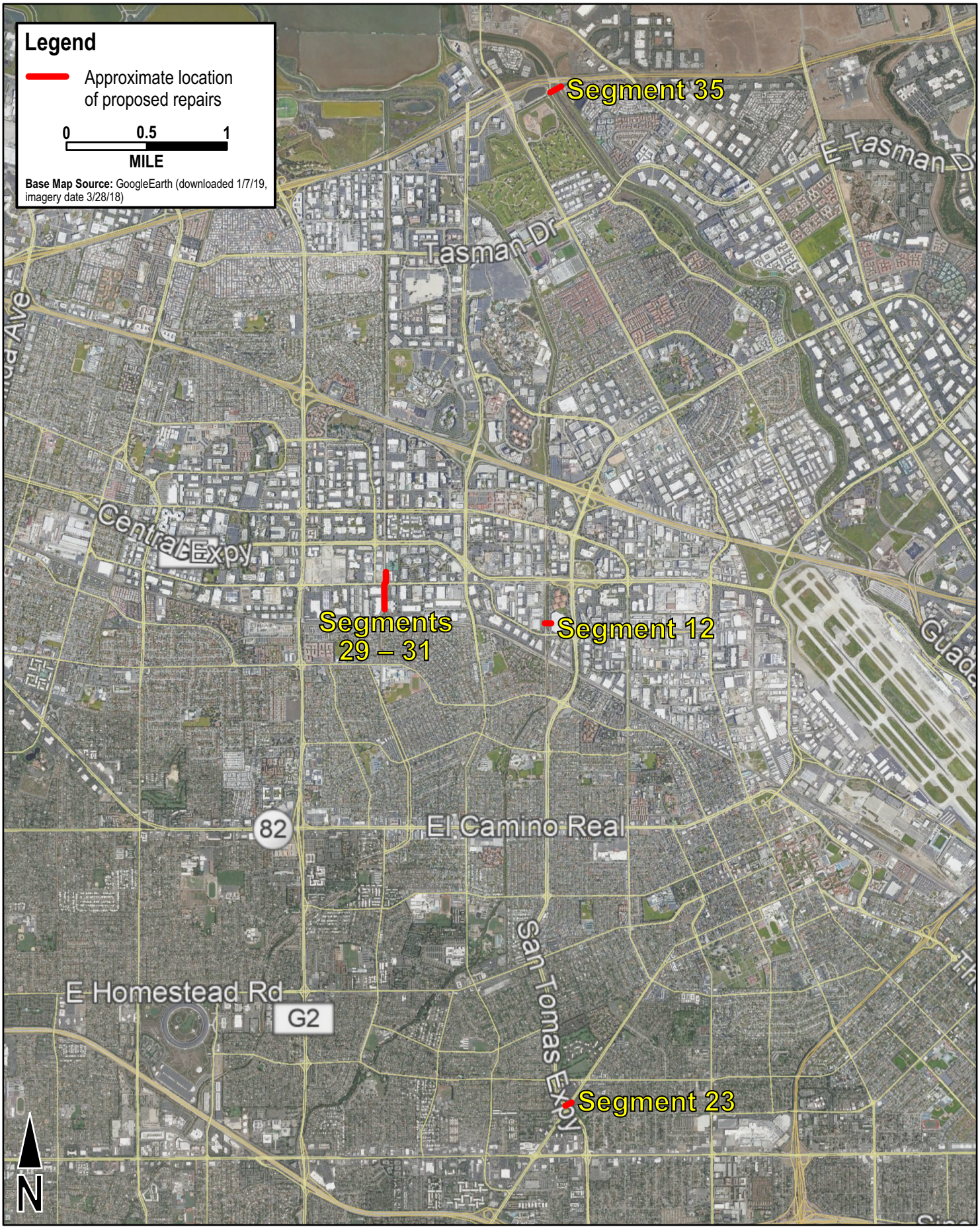
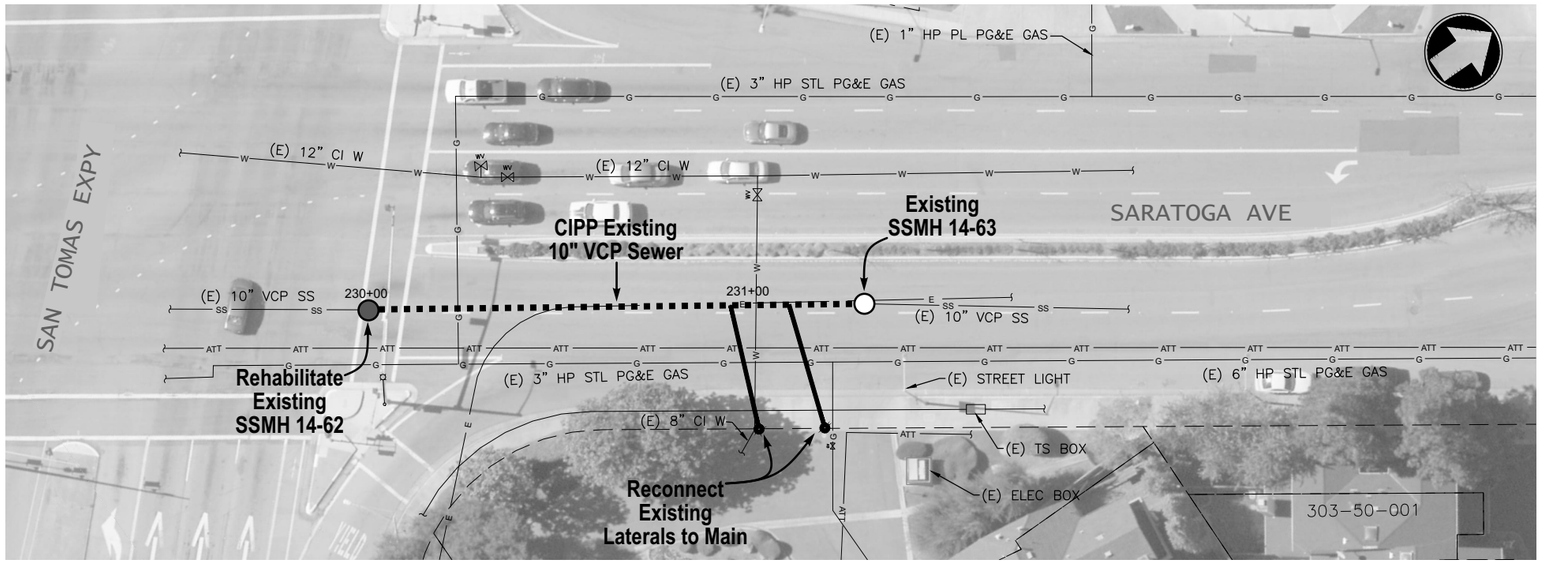



Redtail Consulting
Environment & Community

**Figure 1. Locations of Proposed Repair Projects**
**Sanitary Sewer Condition Assessment Repairs**
City of Santa Clara

**Base Map Source:** *Modified from* Mott MacDonald, 2018, Sanitary Sewer Condition Assessment Repairs, 65% Plans, Segment 23 – Saratoga Avenue (December).




SCALE IN FEET

30 0 10 20 40 60 80 100

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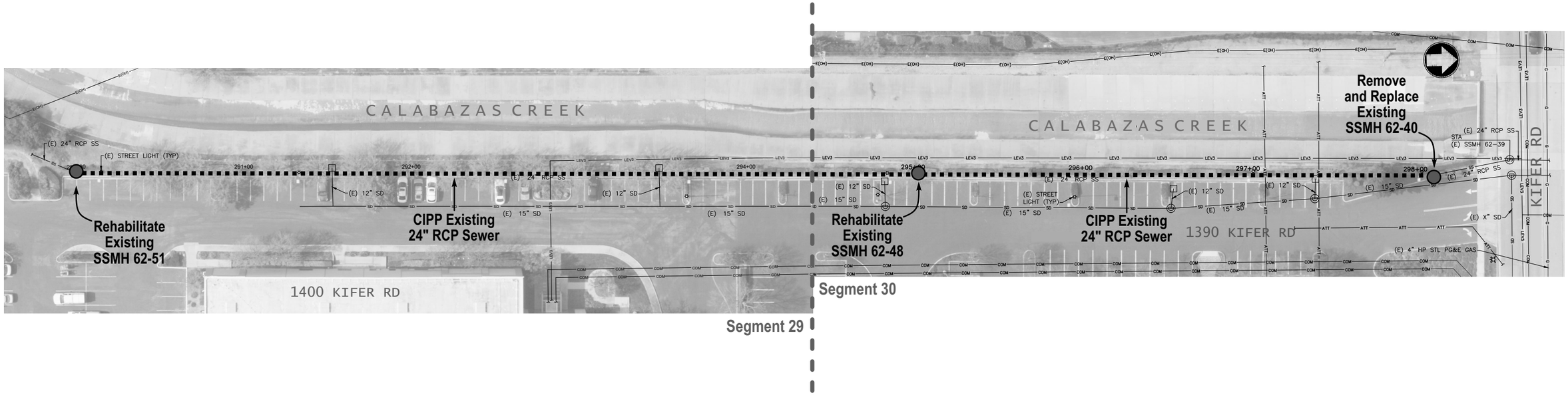
**Figure 2a. Proposed Repairs – Segment 23 (Saratoga Avenue)**
**Sanitary Sewer Condition Assessment Repairs**
City of Santa Clara

**Base Map Source:** *Modified from* Mott MacDonald, 2018, Sanitary Sewer Condition Assessment Repairs, 65% Plans, Segment 29 – Kifer Rd (1), Segment 30 – Kifer Rd (2) (December).




SCALE IN FEET

30 0 10 20 40 60 80 100

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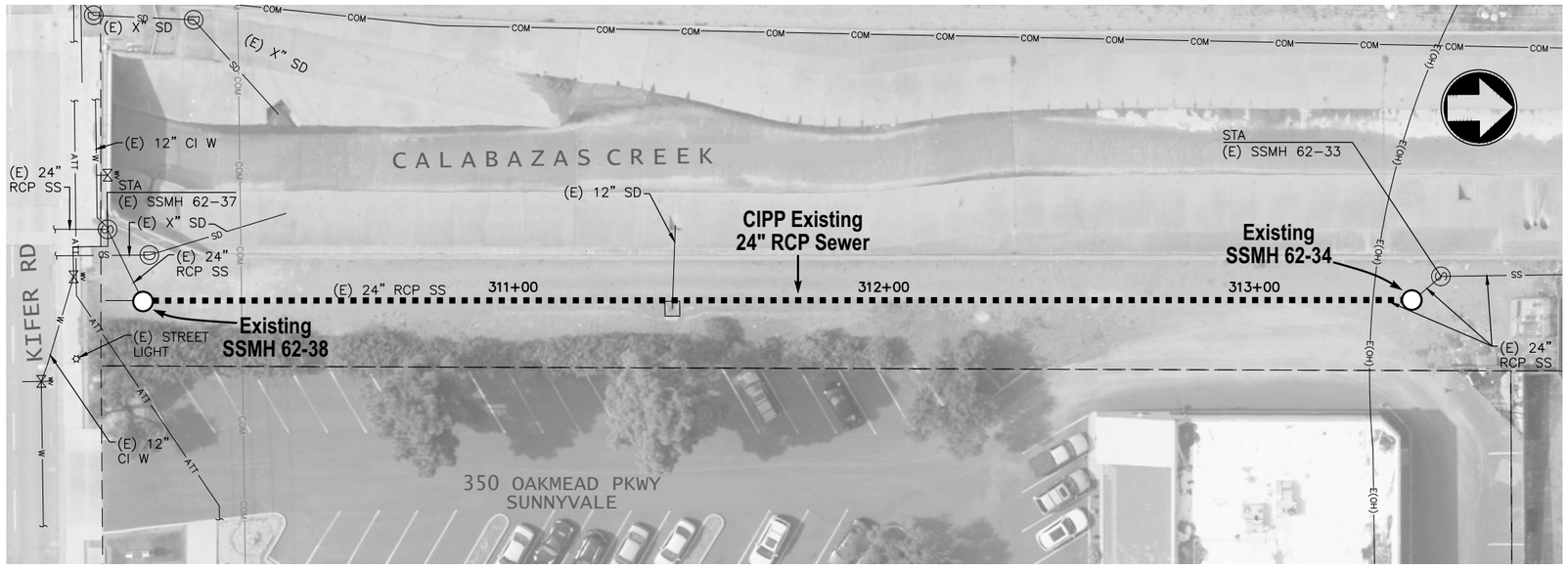
**Figure 2b. Proposed Repairs – Segments 29 and 30 (Kifer Road)**
**Sanitary Sewer Condition Assessment Repairs**
City of Santa Clara

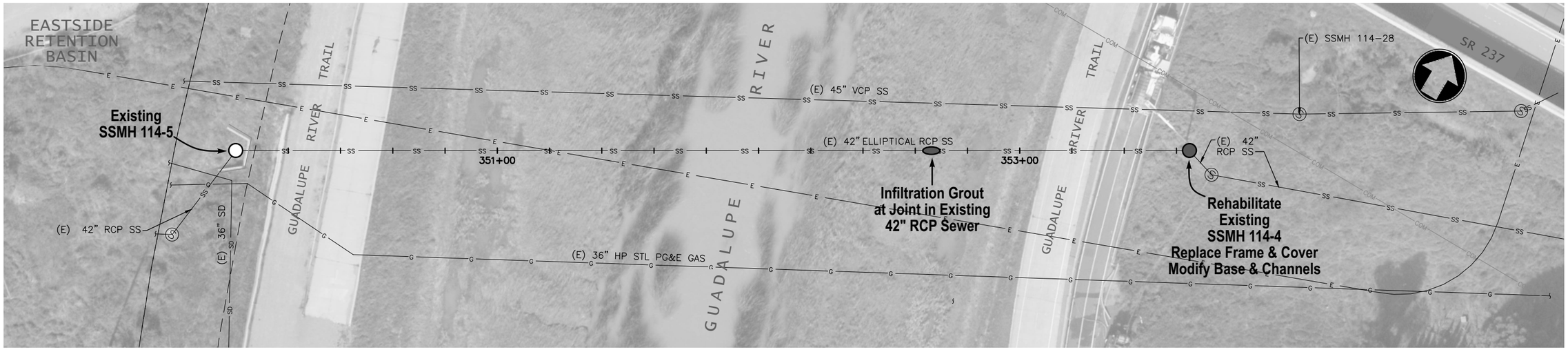
**Base Map Source:** *Modified from* Mott MacDonald, 2018, Sanitary Sewer Condition Assessment Repairs, 65% Plans, Segment 31 – Kifer Rd (3) (December).




SCALE IN FEET

30 0 10 20 40 60 80 100

**Base Map Source:** *Modified from* Mott MacDonald, 2018, Sanitary Sewer Condition Assessment Repairs, 65% Plans, Segment 35 – Guadalupe River (December).



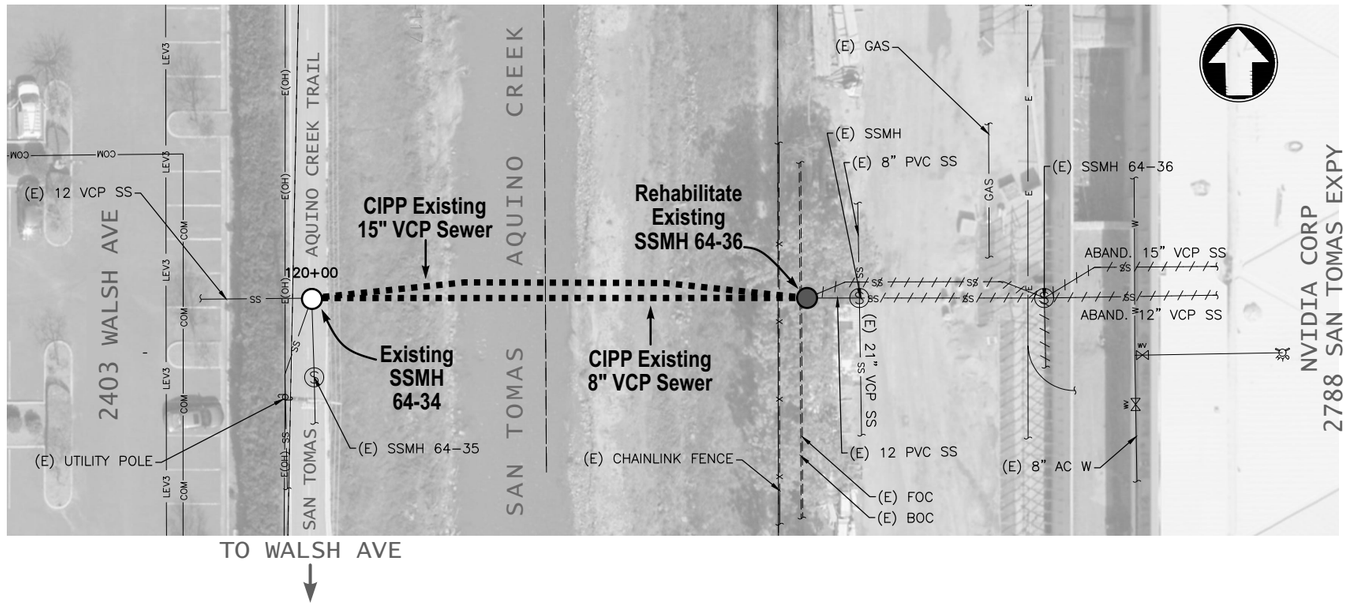

SCALE IN FEET

30 0 10 20 40 60 80 100

Redtail Consulting
Environment & Community

**Figure 2d. Proposed Repairs – Segment 35 (Guadalupe River)**
**Sanitary Sewer Condition Assessment Repairs**
City of Santa Clara

**Base Map Source:** *Modified from* Mott MacDonald, 2018, Sanitary Sewer Condition Assessment Repairs, 65% Plans, Segment 12 – San Tomas Aquino Creek (December).




SCALE IN FEET

30 0 10 20 40 60 80 100

**Redtail Consulting**
Environment & Community

**Figure 2e. Proposed Repairs – Segment 12 (San Tomas Aquino Creek)**
**Sanitary Sewer Condition Assessment Repairs**
City of Santa Clara

# 3

# Environmental Impacts

## Introduction

This section analyzes the proposed project's anticipated environmental impacts and describes the measures the City will implement to avoid or reduce impacts identified as potentially significant.

On the next page is an overview of *Environmental Factors Potentially Affected*. This is followed by a series of checklist matrices itemizing the proposed project's environmental impacts by resource topic. The checklist matrices are based on the sample initial study checklist provided in Appendix G of the state's *CEQA Guidelines* and incorporate changes to the *CEQA Guidelines* adopted in December 2018. Text after each matrix discusses the findings presented in the matrix.

The following terminology is used to assess the severity of the proposed projects' impacts.

- **Potentially Significant Impact** – It is reasonably foreseeable (that is, substantial evidence suggests) that the proposed project would alter conditions from the existing pre-project baseline condition, and the change would be substantial or important enough to exceed a threshold of significance representing the level at which an impact becomes a concern
- **Less than Significant with Mitigation Incorporated** – The proposed project's impact would be significant, but mitigation measures will be adopted to lessen the effect, reducing it below the threshold of significance, and therefore below the level of concern. Where this finding is made, the specific mitigation measures are identified, including the timing of implementation, the entity or entities responsible for implementation and any required follow-up activities, and applicable performance standards
- **Less than Significant Impact** – It is reasonably foreseeable that the proposed project would alter conditions from the pre-project baseline condition, but the change would be small enough to fall below the threshold of significance
- **No Impact** – The proposed project would not materially change conditions from the existing pre-project baseline condition
- **Beneficial Impact** – The proposed project would improve conditions by comparison with the pre-project baseline

Analysis presented in this section was conducted consistent with the requirements of CEQA, the state's *CEQA Guidelines*, and prevailing standards of practice for each resource topic. Analysis and findings represent the City's independent judgment as lead agency under CEQA.

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## ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

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

## 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 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 ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Vincent Luchessi, PE
Senior Civil Engineer

Date

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# Environmental Checklist

| I. AESTHETICS<br><br>*Except as provided in Public Resources Code Section 21099[a], would the project:* | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| (a) Have a substantial adverse effect on a scenic vista? | ☐ | ☐ | ☐ | ■ |
| (b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | ☐ | ☐ | ☐ | ■ |
| (c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views[b] of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning or other regulations governing scenic quality? | ☐ | ☐ | ☐ | ■ |
| (d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | ☐ | ☐ | ■ (construction) | ■ (long term) |

[a] Under Public Resources Code Section 21099 (Section 21099 of the CEQA statute), the aesthetic impacts of certain projects in transit priority areas are not considered significant impacts on the environment.

[b] *Public views* refers to views that are experienced from a publicly accessible vantage point.

## Discussion of Checklist Responses

### Potential for Adverse Effects on a Scenic Vista

Segments 23 and 29 – 31 are in located developed and urbanized areas. Segment 12 is almost entirely within the San Tomas Aquino Creek corridor but is surrounded by densely developed office and R&D uses. There are no designated scenic vistas in proximity to any of these projects, or anywhere within City limits. Moreover, the projects focus on repairs to existing sanitary sewer infrastructure. Once construction is complete, the only visible project elements would continue to be the covers of existing at-grade sewer manholes, and manhole appearance would not change materially even if covers are replaced. As a result, repairs at Segments 23, 29 – 31, and 12 would have No Impact on scenic vistas, and no mitigation is required.

Segment 35 is within the Guadalupe River corridor adjacent to open space surrounding the Eastside Retention Basin and at the PAL BMX track; the River and adjacent open space provide a green visual oasis for neighboring high-density residential uses as well as serving recreators along the Guadalupe River Trail. There are no formally designated scenic vistas in the immediate vicinity of Segment 35 or anywhere else within City limits, although the reach of the Guadalupe River corridor south of SR 237 is within the proposed Santa Clara Valley Floor Park laid out in the Santa Clara County (County) General Plan, which recognizes the Baylands—including this portion of the Guadalupe River—for their value as a scenic resource (County of Santa Clara

2008). However, as at the other project Segments, all work at Segment 35 would be focused on existing sanitary sewer facilities. Infiltration grouting would occur entirely in the subsurface. Once repairs are complete, the only visible project elements would be the rehabilitated above-grade portions of the sewer manhole at the east end of the Segment. Its appearance would not change materially although replacement of the frame and cover could improve it slightly. Repairs at Segment 35 would therefore have No Impact on scenic vistas, and no mitigation is required.

### Potential for Damage to Scenic Resources

The State of California designates and protects certain state highways under the Scenic Highway Program, overseen by the California Department of Transportation (Caltrans). The County of Santa Clara also designates and protects scenic roads—including freeways, expressways, arterial streets, and rural routes—under its General Plan (County of Santa Clara 1994). There are no state-designated scenic highways or County-designated scenic roads within the City or in proximity to any of the proposed projects (California Department of Transportation 2011, County of Santa Clara 2008). There would be No Impact on resources associated with designated scenic routes, and no mitigation is required.

As discussed in the previous item, there are also no scenic vistas in the vicinity of Segments 23, 29 – 31, and 12. There are no designated scenic vistas in the vicinity of Segment 35, but the County General Plan recognizes the scenic value of the Guadalupe River corridor in this area and has slated it for inclusion in a future linear park (County of Santa Clara 2008). That said, work at all Segments, including Segment 35, would focus on repairs to existing sanitary sewer infrastructure that is largely in the subsurface; the only visible project elements would be rehabilitated manholes, which would not change materially in appearance. None of the projects would have the potential to damage scenic resources. There would be no No Impact with regard to scenic resources in general, and no mitigation is required.

### Potential to Conflict with Zoning or Other Scenic Quality Regulations

The City regulates aesthetic values through the General Plan (City of Santa Clara 2014), various Specific Plans, and City Code, including but not limited to Title 18 (*Zoning*), all of which provide for installation and maintenance of adequate infrastructure to support existing and planned development. Moreover, the proposed projects would entail maintenance of existing sewer facilities already in service; there would be no new installations. During construction, there would be some visual disruption associated with the presence of large equipment, construction safety barriers, and materials, but this would be temporary and short-term. None of the projects would result in a material change in site aesthetics. Consequently, the proposed projects are considered entirely consistent with applicable regulations governing aesthetic values. There would be No Impact related to conflict with zoning or other scenic quality regulations, and no mitigation is required.

### Potential to Create New Sources of Light or Glare

During construction, there would be some potential for new or increased glare, primarily associated with reflections from the glass and painted metal surfaces of construction equipment. In addition, if night work is necessary—as it may be in some locations, particularly at Segments 35 and 12 where it may be needed to avoid disruption of trail use—there would be potential for glare and light spill from work lighting. However, construction at each of the Segments would be short-term and would be visible to a comparatively small number of viewers. Because of the short duration and limited visibility of construction-related glare and light spill, potential construction-period impacts related to new sources of light and glare are considered Less than Significant. No mitigation is required.

The proposed repairs would decrease the need for future maintenance along the project Segments; consequently, this type of short-term, localized increase in glare and light spill would be restricted to the very short duration of the construction work period at each of the project Segments.

Once construction is complete, the only visible elements of the projects at Segments 23, 29 – 31, and 12 would be the rehabilitated manhole covers. The same is true of Segment 35, where the rehabilitated frame and cover would be visible above-grade. However, even where covers and/or frame elements are replaced, their appearance would not change substantially, and they would not represent a source of new or increased glare. Over the long term, there would be No Impact with regard to sources of new or increased light or glare. No mitigation is required.

## References Cited in this Section

California Department of Transportation. 2011. California Scenic Highway Mapping System. Available: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm. Accessed: January 2019.

City of Santa Clara. 2014. Celebrating Our Past, Present and Future: City of Santa Clara 2010 – 2035 General Plan. Last updated December 2014. Available: http://santaclaraca.gov/government/departments/community-development/planning-division/general-plan. Downloaded: January 2019.

County of Santa Clara. 1994. Santa Clara County General Plan: Charting a Course for Santa Clara County's Future: 1994 – 2010. (Adopted December 20, 1994; most recently amended November 19, 2015.) Available: https://www.sccgov.org/sites/dpd/PlansOrdinances/GP/Pages/GP.aspx. Downloaded: January 2019.

County of Santa Clara. 2008. Regional Parks and Scenic Highways Map Element of the Santa Clara County General Plan. Available: https://www.sccgov.org/sites/dpd/DocsForms/Documents/ GP_Parks_ ScenicRoads.pdf. Downloaded: January 2019.

| **II. AGRICULTURE & FORESTRY RESOURCES**<br><br>*Would the project:* | **Potentially Significant Impact** | **Less Than Significant with Mitigation Incorporated** | **Less Than Significant Impact** | **No Impact** |
|---|---|---|---|---|
| (a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | ☐ | ☐ | ☐ | ■ |
| (b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? | ☐ | ☐ | ☐ | ■ |

| **II. AGRICULTURE & FORESTRY RESOURCES**<br><br>*Would the project:* | **Potentially Significant Impact** | **Less Than Significant with Mitigation Incorporated** | **Less Than Significant Impact** | **No Impact** |
|---|---|---|---|---|
| (c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g])? | ☐ | ☐ | ☐ | ■ |
| (d) Result in the loss of forest land or conversion of forest land to non-forest use? | ☐ | ☐ | ☐ | ■ |
| (e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? | ☐ | ☐ | ☐ | ■ |

## Discussion of Checklist Responses

### Potential for Conversion of Farmland to Non-Agricultural Use

The Land Resource Protection Division (LRPD) of the state's Department of Conservation is charged with protecting California agricultural lands as well as open space resources. To that end, the LRPD's Farmland Mapping and Monitoring Program (FMMP) evaluates and rates agricultural lands based on factors such as soil quality and irrigation status. The highest-quality lands are designated Prime Farmland. Other important agricultural lands are designated Farmland of Statewide Importance (similar to Prime Farmland but with minor shortcomings) or Unique Farmland (farmland that has lower quality soils but is important for production of the state's leading agricultural crops). Additional designations include Farmland of Local Importance (lands used for production of crops important to the local agricultural economy) and Grazing Land. Collectively, these agricultural lands warranting protection are often referred to as Farmland. Every 2 years, the FMMP produces updated GIS-based maps showing the location and extent of California's Farmland (California Department of Conservation 2017a, 2017b).

There is no state-designated Farmland within or adjacent to the project footprints or within the larger extent of the City (California Department of Conservation 2016a). Moreover, the proposed projects would repair existing, previously installed sanitary sewer facilities. The proposed projects would therefore have no potential to result in the direct conversion of Farmland for non-agricultural use.

The projects are needed to maintain adequate sanitary sewer service for existing development. The repaired facilities may also serve future development, but any such development would take place under the aegis of adopted City land use planning documents.; the repair projects themselves would not alter existing land use designations or zoning nor would they modify existing or planned levels of development. As a result, the proposed repair projects would have no potential to create pressures indirectly fostering conversion of Farmlands elsewhere in the City or County.

There would be No Impact related to conversion of Farmland to non-agricultural use, and no mitigation is required.

## Potential to Conflict with Existing Agricultural Zoning or Williamson Act Contract

Under the California Land Conservation Act of 1965 (Williamson Act), local governments may establish contracts with local landowners to restrict specific parcels to agricultural or open space use (see California Department of Conservation 2017c). No such contracts are in place within City limits (California Department of Conservation 2016b).

As itemized in Section 2, the project Segments are under several different types of zoning:

- Segment 23 is within the Saratoga Avenue right-of-way. The area northwest of Segment 23 is zoned Community Commercial and the area east/southeast of Segment 23 is zoned Public or Quasi Public and Planned Development
- Segments 29 – 30 are zoned General Industrial.
- Segment 31 is zoned Light Industrial
- Segment 12 is largely within the Santa Clara Valley Water District right-of-way along San Tomas Aquino Creek, but the easternmost portion of the alignment (within the NVIDIA parking lot at 2877 San Tomas Expressway) is zoned Planned Development

There is no agricultural zoning in the vicinity of Segments 23, 29 – 31, and 12. These segments would have no potential to conflict with agricultural zoning.

Segment 35 is largely within the area of Public or Quasi Public zoning along the Guadalupe River corridor. The easternmost end of the Segment is within an area zoned Agricultural & Planned Development. This area also includes the neighboring high-density residential uses, however, and—based on review of GoogleEarth historic aerial photographs—has not been cultivated in recent decades. Additionally, the sewer facilities to be repaired/rehabilitated at Segment 35 were originally installed in the early 1960s, prior to the 1969 adoption of the City's current Zoning Code and long before the current land use mosaic took shape. As "grandfathered" infrastructure that was in place when the current zoning was applied, the existing sewer facilities are considered to be consistent with the area's current zoning.

There would be No Impact related to conflict with agricultural zoning or Williamson Act contracts, and no mitigation is required.

## Potential to Conflict with Existing Forest or Timberland Zoning

Section 12220[g] of the California Public Resources Code defines *forest land* as land that can support 10% native tree cover under natural conditions, and "that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." Public Resources Code Section 4526 defines *timberland* as non–federally owned land that is available for, and capable of, growing commercial tree crops used to produce lumber and other forest products. There are no lands of either type within or immediately any of the project Segments or elsewhere in the City.

Under Section 51104 of the California Government Code, a timberland production zone is an area that is "devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible

uses" and is under zoning established through a specific process stipulated by law. There are no lands of either type within or immediately any of the project Segments or elsewhere in the City.

With no forest or timberland zoning in vicinity of any of the project Segments, there is no potential to conflict with such zoning. There would be No Impact related to conflict with forest or timberland zoning, and no mitigation is required.

### Potential to Result in Loss or Conversion of Forest Land

There is no forest land in proximity to any of the project Segments or within the larger extent of the City. The proposed projects would therefore have no potential to result in the direct loss or conversion of forest land.

Similarly, although the repaired facilities may also serve future development, any such development would take place under adopted City land use planning documents; the repair projects would have no potential to alter land use designations or zoning or to modify planned levels of development. As a result, the proposed repair projects would have no potential to create indirect pressures contributing to loss or conversion of forest lands elsewhere in County.

There would be No Impact related to loss of forest land or conversion of forest land to non-forest use, and no mitigation is required.

### Potential for Other Changes

As discussed in the previous items, the proposed projects would repair existing sewer facilities that serve existing development, and may serve future development under approved land use plans. As such, they are consistent with the City's land use planning and with surrounding land uses; they would have no potential to independently modify land uses in the project areas. Moreover, as discussed in the sections above, there is no Farmland or forest land in the project vicinity or the larger City. The projects therefore have no potential to directly result in or indirectly contribute to conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use. There would be No Impact related to such conversion, and no mitigation is required.

## References Cited in this Section

California Department of Conservation. 2016a. California Important Farmland Finder. Available: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed: January 2019.

California Department of Conservation. 2016b. Santa Clara County Williamson Act FY 2015/2016. Available: ftp://ftp.consrv.ca.gov/pub/dlrp/wa/SantaClara_15_16_WA.pdf. Downloaded: January 2019.

California Department of Conservation. 2017a. Farmland Mapping and Monitoring Program. Available: http://www.conservation.ca.gov/dlrp/fmmp. Accessed: July 2018.

California Department of Conservation. 2017b. Important Farmland Categories. Available: www.conservation.ca.gov/dlrp/fmmp/Pages/mccu/map_categories.aspx. Accessed: July 2018.

California Department of Conservation. 2016c. Williamson Act/Land Conservation Act. Available: http://www.conservation.ca.gov/dlrp/lca. Accessed: July 2018.

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

## Discussion of Checklist Responses

Air quality is protected under the federal and California Clean Air Acts and is regulated at the federal, state, and regional levels. Under the federal Clean Air Act, the U.S. Environmental Protection Agency (EPA) maintains oversight authority and is responsible for establishing nationwide air quality standards. EPA delegates the front-line responsibility for maintaining air quality to the state level. In California, the state agency responsible for air quality is the California Air Resources Board (CARB), an arm of the California Environmental Protection Agency (CalEPA). CARB has elected to retain primary responsibility for the regulation of mobile (vehicular) emission sources, but in turn delegates substantial implementation authority to the 35 regional air districts, which are responsible for enforcing standards and regulating stationary (non-vehicular) emissions sources in each of California's 15 air basins. The boundaries of the air basins are defined based on geographic, meteorological, and political criteria (California Air Resources Board 2012, 2018). The City is located within the San Francisco Bay Area Air Basin, under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD), the nation's oldest regional air district.

EPA and CARB regulate pollutants that are of particular concern because of their potential to impact human health and the environment, and their precursors, through the establishment of ambient air quality standards (AAQS) that reflect acceptable airborne concentrations of these substances. These are referred to as the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) respectively. The regulated pollutants and precursors, referred to as *criteria pollutants*, are:

- Carbon monoxide (CO)
- Airborne lead (Pb)
- Nitrogen dioxide ($NO_2$)

- Ozone ($O_3$)[1]
- Inhalable particulate matter (PM), including material less than 10 microns (0.01 millimeter) in diameter (PM10) and material less than 2.5 microns (0.0025 millimeter) in diameter (PM2.5 or fine PM).[2] PM2.5 is of special concern from a health perspective because it is small enough to be drawn deep into the lungs when inhaled
- Sulfur dioxide ($SO_2$)

Table 3-1 shows the federal and state standards for criteria pollutant levels. Areas that fail to achieve these standards are designated as *nonattainment* areas.

**Table 3-1. Federal and State Ambient Air Quality Standards**

| Pollutant | Averaging Time | NAAQS | CAAQS |
|---|---|---|---|
| Carbon monoxide (CO) | 1-hour | 35 ppm<br>*Not to be exceeded more than once per year* | 20 ppm |
| | 8-hour | 9 ppm<br>*Not to be exceeded more than once per year* | 9 ppm |
| Airborne lead (Pb) | 3-month rolling average | 0.15 µg/m$^3$ | — |
| Nitrogen dioxide ($NO_2$) | Annual | 0.053 ppm | 0.030 ppm |
| | 1-hour | 100 ppb (3-year average of 98$^{th}$ percentile) | 0.18 ppm |
| Ozone ($O_3$) | 1-hour | — | 0.09 ppm |
| | 8-hour | 0.070 ppm (3-year average of 4$^{th}$ highest value ) | 0.070 ppm |
| PM10 | 24-hour | 150 µg/m$^3$ | 50 µg/m$^3$ |
| | Annual | — | 20 µg/m$^3$ |
| PM2.5 | 24-hour | 35 µg/m$^3$ (3-year average of 98$^{th}$ percentile) | — |
| | Annual | 12 µg/m$^3$ (3-year average) | 12 µg/m$^3$— 3-year max |
| Sulfur dioxide ($SO_2$) | 1-hour | 75 ppb (3-year average of 99$^{th}$ percentile) | 0.25 ppm |
| | 24-hour | 0.14 ppm<br>*Not to be exceeded more than once per year* | 0.04 ppm |

**Abbreviations:**
ppb = parts per billion by volume
ppm = parts per million by volume
µg/m$^3$ = micrograms per cubic meter

*Source: Bay Area Air Quality Management District 2017b*

[1] Ozone in the lower atmosphere that we breathe (troposphere)—as opposed to ozone in the stratosphere—is formed primarily from atmospheric chemical reactions involving emissions of reactive organic gases (ROGs) and oxides of nitrogen ($NO_x$). As a result, air quality plans for ozone and significance thresholds address emissions of these precursor pollutants.

[2] Sources of PM10 include road dust and earthmoving activities. PM2.5 includes most of the particles generated by combustion of liquid and gaseous fuels as well as particulates from smoking and vaping and particles generated by atmospheric reactions between gases, including ROG and $NO_x$.

The BAAQMD views regional air pollution as a cumulative impact—that is, the result of multiple sources and projects over time—and has concluded that no single project is sufficient in size to result independently in a new violation of air quality standards (see discussion in Bay Area Air Quality Management District 2017a, page 2-1). This is particularly true of small, comparatively short-duration undertakings like the proposed repairs.

As shown in Table 3-2, BAAQMD (2009) has developed significance thresholds based on the following.

- Federal air permitting rules for major stationary sources of air pollution (given in 40 CFR 51 – 52) define a *significant* emissions increase from those sources as 10 tons per year for ozone precursors and PM2.5 and 15 tons per year for PM10
- Short-term air quality standards, based on 8- to 24-hour average concentrations also exist for both of those pollutants
- Dividing those figures by 365 days per year results in 54 pounds per day and 82 pounds per day

These thresholds are not mandatory, but they have been widely used by Bay Area cities and counties as the best available guidance in evaluating the magnitude of project-related emissions and assessing the level at which emissions become "considerable" in the context of a cumulative impact on air quality.

**Table 3-2. BAAQMD Thresholds for Construction-Related Criteria Pollutant Emissions**

| Pollutant | Average Daily Emissions |
|---|---|
| Reactive organic gases (ROG) | 54 pounds/day |
| Oxides of nitrogen ($NO_x$, including $NO_2$) | 54 pounds/day |
| PM10 (exhaust emissions) | 82 pounds/day |
| PM2.5 (exhaust emissions) | 54 pounds/day |
| PM10 and PM2.5 (fugitive dust) | Emissions are considered Less than Significant if project implements BAAQMD's recommended best management practices (BMPs) for dust control |
| Carbon monoxide (CO) | No threshold identified |

*Source: Bay Area Air Quality Management District 2017a*

In the Bay Area, emissions of criteria pollutants and their precursors decreased by approximately 60% between 1990 and 2011 (Bay Area Air Quality Management District 2019), and the Bay Area is formally designated as having attained all of the NAAQS and CAAQS except those for ozone and particulate matter.

The Bay Area exceeded the ozone AAQS on 6 days in 2017 (Bay Area Air Quality Management District 2018).

For PM, as shown in Table 3-1, there are separate AAQS for PM10 and PM2.5, and for annual and 24-hour periods. EPA has determined that the Bay Area has met both the annual and 24-hour PM2.5 AAQS (U.S. Environmental Protection Agency 2013, 2015), but has not yet been asked to formally redesignate the area as in attainment of the 24-hour AAQS. California has also not yet designated the Bay Area as in attainment of the annual AAQS.[3] For PM10, the NAAQS and CAAQS are very different; the Bay Area is designated as in

[3] These attainment evaluations are for planning purposes and can exclude data from exceptional events such as wildfires. Wildfires can substantially impact air quality: for example, during the 2017 fires, the 24-hour-average PM-2.5 concentrations in some North Bay counties were more than five times the NAAQS (Bay Area Air Quality Management District 2018).

attainment of the NAAQS but in nonattainment of the CAAQS.

In addition to the criteria pollutants, there are air pollutants that are classified as toxic or hazardous—nearly all of which are also classified as ROG or PM—because of their carcinogeneity or other health impacts. These are often addressed on a more localized basis. Carcinogeity is assessed in terms of the lifetime risk of developing cancer as a result of exposure.

In a recent report, the BAAQMD's Community At Risk Evaluation (CARE) Program used risk factors developed by the state Office of Environmental Health Hazard Assessment (OEHHA) to estimate that the potential[4] lifetime risk of developing cancer from Bay Area air quality has declined substantially over the last 20 years and that as of 2012 it was relatively small—no more than 400- to 700-in-a-million[5]—in the Santa Clara Valley (Bay Area Air Quality Management District 2014); for comparison, the lifetime risk of developing cancer from all causes is approximately 40% (400,000-in-a-million) (American Cancer Society 2019). The CARE report identified over half of that risk as being from diesel PM, although that was in turn determined by first estimating that ambient diesel PM concentrations were the same as ambient elemental carbon concentrations and then applying cancer potency estimates from studies more than 20 years old that do not reflect the fact that diesel PM emitted from 2007 and later diesel engines is significantly different in character than that from older diesel engines (for example, the elemental carbon content of diesel PM has dropped from 70% to as low as 13 – 16%) (Health Effects Institute Diesel Epidemiology Panel 2015).

## Potential to Conflict with or Obstruct Air Quality Plan Implementation

A number of air quality plans have been developed, some by the BAAQMD, which has primary responsibility for controlling air pollution from sources other than motor vehicles and for developing air quality plans to fulfill California statutory requirements, and some by CARB, which has primary responsibility for controlling air pollution from motor vehicles and for incorporating BAAQMD control measures into the State Implementation Plan (SIP) that is required to fulfill national statutory requirements. All of these plans describe regulatory requirements that have been or will be codified into regulations, meaning that projects that comply with those regulations comply with the corresponding plans.

The local air quality plan that applies to the project area is the BAAQMD's current Clean Air Plan (Bay Area Air Quality Management District 2017b), which lays out a regional strategy for continued progress toward attainment of all state and federal air quality standards and includes control measures to decrease pollutant emissions that pose health risks, reduce emissions of greenhouse gases, and lower carbon dioxide emissions by reducing reliance on fossil fuels. However, although the Clean Air Plan identifies control strategies such as providing funding to support replacement of outdated construction equipment with newer, cleaner models, it does not directly regulate construction activity—and routine construction projects are taken into account in the BAAQMD's planning process.[6] Moreover, where ground disturbance or excavation is required, the project would incorporate dust control measures reflecting the BAAQMD "Basic Construction Mitigation Measures," as laid out in the agency's CEQA guidelines (Bay Area Air Quality Management District 2017a). The BAAQMD "Mitigation

[4] OEHHA acknowledges that risk assessment involves "a great deal of uncertainty" and identifies the assumptions used in developing their health risk assessment guidelines as designed to err on the protective side in order to avoid underestimating risks to the public. As a result, they advise that calculated risks should be interpreted as the potential risk, rather than the expected risk (Office of Environmental Health Hazard Assessment 2015).

[5] Figure ES-1 of the CARE report also shows areas with estimated risks between 300- and 400-in-a-million, but the report also identifies that incorporating the latest OEHHA health risk assessment recommendations would increase that estimate by a factor of approximately 1.7.

[6] Although the Clean Air Plan itself does not regulate construction, many aspects of construction of construction process, equipment, and materials are directly regulated by the BAAQMD and/or CARB.

Measures" are more extensive than the BMPs required for a Less Than Significant determination under the threshold of significance. As a result, there would be No Impact related to conflict with or obstruction of the BAAQMD's current Clean Air Plan, and no mitigation is required.

In many cases, project pollutant emissions are reviewed only by agencies whose authority is restricted to stationary sources of air pollution. However, federal regulations recognize that there is also potential for projects that lack stationary sources but involve substantial mobile pollutant sources to fail to "conform" to the applicable SIP. Accordingly, projects that require a federal approval and are projected to have annual emissions above specified thresholds are required to analyze their conformity with the SIP. This is referred to as *federal General Conformity analysis*. Although routine maintenance and repair activities such as the proposed projects are categorically exempted from this legal requirement per 40 CFR 93.153[c][2][iv], the thresholds provide a guideline as to the quantity of emissions that could potentially conflict with or obstruct implementation of the SIP.

Based on the equipment usage and work durations described in Section 2, a screening-level evaluation of emissions associated with the proposed repairs was conducted, using the current version of the CalEEMod® software recommended by the BAAQMD (CalEEMod Version 2016.3.2), and reflecting the construction assumptions described in Section 2. Modeling results are presented in detail in Appendix A to this Initial Study. As shown in Table 3-3, total emissions from the proposed repairs would be substantially below the annual emissions thresholds, even assuming that all of the proposed repairs are conducted within a single year, which is extremely unlikely. If the proposed repairs are spread over the next several years, as the City anticipates, annual emissions would be even farther below the SIP screening thresholds. As a result, there would be No Impact related to conflict with or obstruction of the SIP, and no need for federal General Conformity analysis. No mitigation is required.

**Table 3-3. Project Emissions in Comparison to SIP Thresholds**

| Pollutant | General Conformity Threshold (tons/year) | Total Project Emissions (tons) | Impact |
|---|---|---|---|
| Reactive organic gases (ROG) | 100 | 0.04 | Less than Significant |
| Oxides of nitrogen ($NO_x$) | 100 | 0.40 | Less than Significant |
| PM10, including precursors | 100 | 0.22 | Less than Significant |
| PM2.5, including precursors* | 100 | 0.02 (PM2.5)<br>0.001 ($SO_2$) | Less than Significant |
| Carbon monoxide (CO) | 100 | 0.14 | Less than Significant |

* PM2.5 precursors include ROG and $NO_x$ (which are evaluated in the top rows of this table) as well as sulfur dioxide ($SO_2$).

*Sources: 40 CFR 93.153[b] thresholds, Tamura Environmental 2019 (Appendix A to this Initial Study)*

CARB has developed a large number of plans (California Air Resources Board 2019); the one pertinent to the proposed projects is their Diesel Risk Reduction Plan (California Air Resources Board 2000), which is incorporated into CARB regulations. CARB's diesel fuel regulations (California Code of Regulations, Title 13, Section 2281) reduced the allowable sulfur content of diesel fuel from 500 parts per million by weight to 15 parts per million by weight in 2006; CARB vehicle regulations require fleets of both heavy-duty on-road diesel vehicles and of off-road diesel vehicles such as construction equipment to meet increasingly stringent emissions standards, submit compliance information to CARB, and comply with anti-idling provisions (California Code of Regulations, Title 13, Sections 2025, 2449, and 2485). The contractor(s) selected to carry out the proposed

repairs would be required to meet these standards. There would be No Impact related to conflict with CARB's Diesel Risk Reduction Plan, and no mitigation is required.

## Potential for Cumulatively Considerable Increase in Criteria Pollutant(s) in Nonattainment

As discussed in more detail in the introduction to this section, the SFBAAB is currently in nonattainment of the state and national ozone standards and the national particulate matter standards. Table 3-4 compares projected daily emissions generated by the proposed repairs with BAAQMD's significance thresholds for temporary construction-related activities, which represent the emission levels at which a project's individual emissions become "considerable" in the context of the larger cumulative impact represented by nonattainment of air quality standards.

**Table 3-4. Daily Emissions Associated with Proposed Repairs**

| Pollutant | BAAQMD Threshold (pounds/day) | Projected Emissions (pounds/day) | Impact |
|---|---|---|---|
| Reactive organic gases (ROG) | 54 | 5 | Less than Significant |
| Oxides of nitrogen ($NO_x$, including $NO_2$) | 54 | 48 | Less than Significant |
| PM10 (exhaust emissions) | 82 | 2 | Less than Significant |
| PM2.5 (exhaust emissions) | 54 | 2 | Less than Significant |
| PM10 and PM2.5 (fugitive dust) | Less than Significant if BAAQMD dust control Best Management Practices (BMPs) implemented | Project would incorporate BAAQMD dust control measures where ground disturbance or excavation is required | Less than Significant |

*Sources: BAAQMD 2017a, Tamura Environmental 2019 (Appendix A to this Initial Study)*

As Table 3-4 shows, pollutant emissions associated with project construction are projected to fall below the thresholds at which the BAAQMD considers emissions cumulative considerable or Significant. As a result, the projects' potential to result in a cumulatively considerable increase in levels of ozone, ozone precursors, and particulate matter is evaluated as Less than Significant. No mitigation is required.

## Potential to Expose Sensitive Receptors to Pollutants

The BAAQMD defines sensitive receptors as "facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses," such as schools, hospitals, and residential areas (Bay Area Air Quality Management District 2017b). For the most part, the project Segments are not located in proximity to concentrations of sensitive receptors, but Segment 23 is adjacent to a residential area.

The primary pollutants of concern for the proposed repairs are diesel particulate matter from equipment exhaust and styrene from resins that may be used in CIPP lining.

Diesel particulate matter is identified by OEHHA and BAAQMD as a chronic toxic (with effects determined as a function of lifetime exposure) but not an acute one (one where effects are based on short-term exposure) (Bay Area Air Quality Management District 2016). OEHHA accordingly recommends that cancer risk from very short-term exposures (less than 2 months) not be assessed (Office of Environmental Health Hazard Assessment 2015). The proposed repairs would involve very short-term activity (several days at each Segment) and would

make very limited use of diesel equipment, all of which would be required to comply with current vehicle emissions standards and CARB regulations for in-use on-road and off-road diesel equipment. The active work areas would also be located some distance away from receptors. Thus, the projects would make a very small contribution, if any, to even the closest receptors' lifetime exposures to diesel PM, substantially below the threshold where OEHHA considers risk assessment warranted. Potential impacts related to exposure to diesel PM are considered Less than Significant, and no mitigation is required.

Health effects from styrene can result from both long-term exposures and short-term exposures (Bay Area Air Quality Management District 2016). As a result, the City has committed to Avoidance and Minimization Measures to reduce the potential for public exposure to styrene, as described in Section 2. These include locating the steam exhaust at least 100 feet from residences, commercial/business park entry areas, and heating, ventilation, and air conditioning system air intakes if steam curing of styrene resins will be used, allowing the exhaust to disperse. If the exhaust cannot feasibly be located in this manner, alternative curing methods or non-styrene resins will be used. With these measures in place, impacts related to potential styrene exposure are also expected to be Less than Significant, and no mitigation is required.

### Potential for Other Emissions

The BAAQMD's CEQA guidelines (Bay Area Air Quality Management District 2017a) identify examples of land uses that have the potential to generate considerable odors, such as wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants.

Depending on the type of resin and the curing method used, CIPP lining can generate objectionable odors. The same is true of spray-on liner manhole rehabilitation. The use of paving media—which would be required at Segment 23 for sewer lateral reconnection and at Segment 30 to restore pavement following removal and replacement of SSMH-62-40—can also generate odors some people find objectionable. Depending on atmospheric conditions, diesel exhaust odors—also considered unpleasant by some people—may also be intermittently perceptible in locations close to the active repair sites. However, the total duration of work in any given location would be short (on the order of a few days, as described in Section 2), and odor-generating activities would make up only a portion of the total. Exposure to objectionable odors would thus be of very temporary duration and would affect only the receptors closest to the active work sites, since odors disperse with distance. The potential for the proposed projects to create objectionable odors affecting a substantial number of people is therefore considered Less than Significant. No mitigation is required.

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| **IV. BIOLOGICAL RESOURCES**<br><br>*Would the project:* | **Potentially Significant Impact** | **Less Than Significant with Mitigation Incorporated** | **Less Than Significant Impact** | **No Impact** |
|---|---|---|---|---|
| (a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | ☐ | ■ (potential for impacts varies by species and location; see discussion in text for details) | ■ | ■ |
| (f) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | ☐ | ☐ | ☐ | ■ |
| (g) Have a substantial adverse effect on state- or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | ☐ | ☐ | ☐ | ■ |
| (h) 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? | ☐ | ☐ | ☐ | ■ |
| (i) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | ☐ | ☐ | ☐ | ■ |
| (j) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | ☐ | ☐ | ☐ | ■ |

## Discussion of Checklist Responses

### Potential for Adverse Effects on Special-Status Species

Under CEQA, *special-status species* is understood to refer to plants and wildlife considered at risk and protected under a variety of federal, state, and local regulations, including:

- Wildlife species that are listed, proposed, or candidates for listing as threatened or endangered under the federal or state Endangered Species Act
- Wildlife designated as Species of Special Concern by DFW and/or Species of Concern by the U.S. Fish and Wildlife Service (USFWS)
- Wildlife identified as fully protected under the California Fish and Game Code
- Additional wildlife species included on DFW's Special Animals List[7]
- Birds identified as federal Birds of Conservation Concern
- Plants that are state- or federally listed as rare, threatened or endangered, are candidates for state or federal listing, are proposed for state or federal listing, or are identified by the California Native Plant Society's *Inventory of Rare and Endangered Plants of California* as Rank 1, 2, 3, or 4 species

Birds protected under the federal Migratory Bird Treaty Act are also sometimes considered to qualify as special-status species and they are their active nests are treated as such in this analysis.

Table 3-5, beginning on the next page, identifies the special-status wildlife species with potential to occur at the project Segments, based on the biological evaluation conducted for the proposed projects (Vollmar Natural Lands Consulting 2019, presented as Appendix B to this Initial Study). The biological evaluation included

- Review of the current (2018) California California Natural Diversity Database[8] and USFWS Information Planning and Consultation System (IPaC) as well as aerial photography for the vicinities of the project Segments
- Site visits by senior ecologist/biologist staff in October 2018 and again in January 2019. In October 2018, as part of the environmental screening to determine which of the proposed repairs would be subject to CEQA and/or regulatory permitting, all of the 34 repair Segments were visited for an initial, screening-level reconnaissance. The January site visits provided a more in-depth look at the Segments covered in this Initial Study (23, 29 – 31, 35, and 12). During the site visits, general site conditions, all observed flora and wildlife, and notable habitat features were recorded, with particular attention to potentially jurisdictional features such as wetlands, sensitive habitats (e.g., riparian, native grassland), and potential habitat value for special-status species

Following the reconnaissance site visits, a draft delineation of jurisdictional habitat was completed at Segment 35.

[7] Special Animals is DFW's term for all species tracked in the California Natural Diversity Database, regardless of legal or protection status. The Special Animals List identifies the species DFW considers to be in greatest need of conservation.

[8] The California Natural Diversity Database, maintained by DFW, is a GIS-based inventory of California locations where special-status plants and animals are known to be present or to have been present in the past.

**Table 3-5. Special-Status Wildlife Presence in Project Vicinity**

| Species | Status | Habitat Requirements | Presence at Project Segments |
|---|---|---|---|
| **Species Potentially Present** | | | |
| Plants | | | |
| Alkali milk-vetch *Astragalus tener* var. *tener* | CRPR 1B.2 | Playas, valley and foothill grasslands with adobe clay substrate, vernal pools | Has some potential to occur on edge of channel at Segment 35, but habitat quality is low |
| Congdon's tarplant *Centromadia parryi* ssp. *congdonii* | CRPR 1B.1 | Alkaline valley and foothill grasslands | Has some potential to occur at Segment 35, but habitat quality is poor |
| Point Reyes bird's-beak *Chloropyron maritimum* ssp. *palustre* | CRPR 1B.2 | Coastal salt marshes and swamps | May occur in marshlands at Segment 35 |
| California seablite *Suaeda californica* | FE, CRPR 1B.1 | Salt-marsh coastal wetlands. | May occur in marshland/ wetland areas at Segment 35 |
| Saline clover *Trifolium hydrophilum* | CRPR 1B.2 | Marshes and swamps, mesic alkaline valley and foothill grasslands, vernal pools | Has some potential to occur at Segment 35 on edge of channel, but habitat quality is low |
| Fishes | | | |
| Green sturgeon *Acipenser medirostris* | FT, SSC, NMFS:SC | Feeds in open ocean and estuaries; spawns in freshwater streams or rivers | Segment 35 is within the designated extent of green sturgeon Critical Habitat – Estuary |
| White sturgeon *Acipenser transmontanus* | SSC | Tidal and estuarine systems, oceans | Has potential to occur in Segment 35; Guadalupe River provides potential habitat |
| Steelhead (Central California Coast Distinct Population Segment) *Oncorhynchus mykiss irideus* | FT | Anadromous species; hatch and rear in freshwater streams and rivers and outmigrate to spend adult life in the open ocean, returning to natal stream to spawn | Both steelhead and chinook salmon are well documented in the Guadalupe River and may occur at Segment 35. Neither species is known to occur in San Tomas Aquino or Calabazas Creek |
| Chinook salmon (Central Valley fall-run, hatchery stock) *Oncorhynchus tshawytscha* | SSC, NMFS:SC, USFS:S | | |
| Amphibians and Reptiles | | | |
| Southwestern pond turtle *Actinemys marmorata pallida* (formerly *A. marmorata*) | SSC, BLM: S, USFS:S | Ponds, lakes, streams, irrigation ditches, permanent pools along intermittent streams. Requires logs, rocks, or other features that offer basking sites | Has potential to occur at Segments 35 and 12; channels at both locations have rocks that offer basking opportunities |
| California red-legged frog *Rana draytonii* | FT, SSC | Quiet pools of freshwater streams; occasionally uses | Minor potential to occur in the vicinity of Segment 35; Eastside Retention Basin offers potential habitat but quality is low and basin |

| Species | Status | Habitat Requirements | Presence at Project Segments |
|---|---|---|---|
| | | ponds, including stock ponds and other impoundments | is isolated from higher-quality habitat farther up the watershed<br>Unlikely to use San Tomas Aquino Creek at Segment 12 and Calabazas Creek at Segments 29 – 31 due to lack of suitable inchannel and upland habitat |
| Birds | | | |
| Cooper's Hawk<br>*Accipiter cooperii* | WL | Nests in coast live oaks (*Quercus agrifolia*) and other forest habitat; may also use large trees in suburban/ urban settings for nesting | Species is documented in the project region and may be a casual visitor to project Segments. Some potential for nesting occurrence in large trees in proximity to several of the Segments, including Segment 35 |
| Tricolored Blackbird<br>*Agelaius tricolor* | SC, SSC, USFWS:BCC, BLM:S | Large freshwater marshes; forages in open habitats such as pastures and lawns and nests in dense emergent or shrubby vegetation | Has potential to occur in the vicinity of Segment 35, where emergent vegetation in brackish marsh could provide nesting opportunities<br>No potential to occur at other Segments due to lack of suitable habitat |
| Western Burrowing Owl<br>*Athene cunicularia hypugea* | SSC, USFWS:BCC, BLM:S | Disturbance-tolerant species; uses a wide variety of open dry areas with little vegetation. Nests in subterranean animal burrows | Has potential to occur at Segments 35 and 12. Habitat survey identified one potential nesting burrow on western levee near Segment 12, and ruderal uplands at ends of Segment 35 offer habitat for burrowing mammals such as ground squirrels (*Otospermophylus* sp.) |
| Great Blue Heron (rookery)<br>*Ardea herodias* | SA | Marshlands and streams; nests in large stands of mature trees near water | Some potential to occur at Segment 35; channel provides low- to moderate-quality foraging opportunities and large eucalyptus trees in adjacent uplands may offer nesting habitat<br>Unlikely to use channels at Segments 12 and 29 – 31 due to poor habitat quality |
| White-tailed Kite<br>*Elanus leucurus* | FP, BLM:S | Forages in undisturbed open grasslands, meadows, farmlands, and emergent wetlands; nests near tops of dense tree stands | Has low potential to forage in uplands adjacent to Segment 35, but no nesting habitat available |

| Species | Status | Habitat Requirements | Presence at Project Segments |
|---|---|---|---|
| Saltmarsh Common Yellowthroat *Geothlypis trichas sinuosa* | SSC, USFWS:BCC | Freshwater marshes | All of these marshland species may use marshland/wetland areas at Segment 35 |
| California Black Rail *Laterallus jamaicensis coturniculus* | ST, FP, USFWS:BCC, BLM:S | Freshwater marshes and wetland meadows in close proximity to San Francisco Bay waters | |
| Alameda Song Sparrow *Melospiza melodia pusillula* | SSC, USFWS:BCC | Tidal salt marshes | |
| California Ridgway's Rail *Rallus obsoletus obsoletus* | FE, SE, FP | Salt marshes and tidal sloughs | |
| Mammals | | | |
| Pallid bat *Antrozous pallidus* | SSC, BLM:S, USFS:S | Forages in a variety of habitats; roosts in rocky outcrops, hollow trees, and buildings | May occur at Segment 35; nearby large trees may offer suitable roosting habitat, and foraging opportunities are available in upland areas |
| Western red bat *Lasiurus blossevillii* | SSC | Forages and roosts in forest or woodland habitats, especially near riparian areas | May occur at Segment 35. Species does not breed in project region, but could roost in trees adjacent to Segment 35 |
| Salt marsh harvest mouse *Reithrodontomys raviventris* | FE, SE, FP | Salt marshes, particularly those offering pickleweed (*Salicornia* sp.) habitat | May occur at Segment 35. Both species are documented in the vicinity and Segment 35 offers emergent salt marsh vegetation, including limited stands of pickleweed |
| Salt marsh wandering shrew *Sorex vagrans halicoetes* | SSC | Salt marshes with dense cover | |
| **Species Known from Project Region But Not Expected to Be Present** | | | |
| Plants | | | |
| Robust spineflower *Chorizanthe robusta* var. *robusta* | FE, CRPR 1B.1 | Maritime chaparral, clearings in cismontane woodland, coastal dunes, coastal scrub. Requires sandy or gravelly substrate | Not expected to occur at any of the project Segments; no suitable habitat available |
| Western leatherwood *Dirca occidentalis* | CRPR 1B.2 | Broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, riparian forest, mesic riparian woodland | Not expected to occur at any of the project Segments; no suitable habitat available |
| Santa Clara Valley dudleya *Dudleya abramsii* ssp. *setchellii* | FE, CRPR 1B.1 | Cismontane woodland, valley and foothill grassland. Typically found on rocky serpentinite substrate | Not expected to occur at any of the project Segments; no suitable habitat available |
| Hoover's button-celery *Eryngium aristulatum* var. *hooveri* | CRPR 1B.1 | Vernal pools | Not expected to occur at any of the project Segments; no suitable habitat available |

| Species | Status | Habitat Requirements | Presence at Project Segments |
|---|---|---|---|
| Contra Costa goldfields *Lasthenia conjugens* | FE, CRPR 1B.1 | Cismontane woodland, alkaline playas, valley and foothill grassland, mesic vernal pools | Not expected to occur at any of the project Segments; no suitable habitat available |
| Arcuate bush-mallow *Malacothamnus arcuatus* | CRPR 1B.2 | Chaparral, cismontane woodland | Not expected to occur at any of the project Segments; no suitable habitat available |
| Hall's bush-mallow *Malacothamnus hallii* | CRPR 1B.2 | Chaparral, coastal scrub | Not expected to occur at any of the project Segments; no suitable habitat available |
| Prostrate vernal pool navarretia *Navarretia prostrata* | CRPR 1B.1 | Coastal scrub, meadows and seeps, alkaline valley and foothill grassland, mesic vernal pools | Not expected to occur at any of the project Segments; no suitable habitat available |
| Hairless popcornflower *Plagiobothrys glaber* | CRPR 1A | Alkaline meadows and seeps, coastal salt marshes and swamps | Not expected to occur at any of the project Segments. Segment 35 offers suitable habitat, but species is presumed extinct |
| California alkali grass *Puccinellia simplex* | CRPR 1B.2 | Chenopod scrub, meadows and seeps, valley and foothill grassland, vernal pools, alkaline vernally mesic sinks, flats, and lake margins | Not expected to occur at any of the project Segments; no suitable habitat available |
| Metcalf Canyon jewelflower *Streptanthus albidus* ssp. *albidus* | FE, CRPR 1B.1 | Valley grasslands; requires serpentine soils | Not expected to occur at any of the project Segments; no suitable habitat available |
| Invertebrates | | | |
| Conservancy fairy shrimp *Branchinecta conservatio* | FE | Large, cool-water vernal pools with moderately turbid water | Not expected to occur at any of the project Segments; no suitable habitat available |
| San Bruno elfin butterfly *Callophrys mossii bayensis* | FE | Rocky outcrops and cliffs in coastal scrub; host plant is broadleaf stonecrop (*Sedum spathulifolium*) | Not expected to occur at any of the project Segments; no suitable habitat available |
| Bay checkerspot butterfly *Euphydryas editha bayensis* | FT | Native grasslands on shallow, serpentine-derived soil; larvae require *Plantago erecta* and *Castilleja densiflora* | Not expected to occur at any of the project Segments; no serpentine habitat is present and there are no stands of the larval host plants |
| Vernal pool tadpole shrimp *Lepidurus packardi* | FE | Muddy bottoms of vernal pools | Not expected to occur at any of the project Segments; no suitable habitat available |
| Fishes | | | |
| Delta smelt *Hypomesus transpacificus* | FT | Streams, rivers, estuaries | Not expected to occur at any of the project Segments; species is typically limited to areas of fresher |

| Species | Status | Habitat Requirements | Presence at Project Segments |
|---|---|---|---|
| | | | water in the northern portion of the Bay and Delta |
| Coho salmon (Central California Coast Evolutionarily Significant Unit)<br>*Oncorhynchus kisutch* | FE, SE | Anadromous species; hatches and rears in freshwater streams and rivers and outmigrates to spend adult life in the open ocean, returning to natal stream to spawn | Not expected to occur at any of the project Segments. Segment 35 is within species' historic extent, but Coho salmon is believed to be extirpated from rivers flowing into San Francisco Bay |
| <u>Amphibians and Reptiles</u> | | | |
| California tiger salamander<br>*Ambystoma californiense* | FT, ST, WL | Grasslands and low foothills with vernal pools for breeding | Not expected to occur; all project Segments lack both upland and aquatic habitat suitable for this species |
| Northern California legless lizard<br>*Anniella pulchra* | SSC, USFS:S | Moist soils in sparsely vegetated areas | Not expected to occur; project Segments are too urbanized and/or lacking in moist, sparsely vegetated areas |
| Green sea turtle<br>*Chelonia mydas* | FT | Often found in open ocean, returns to beaches to breed | Not expected to occur. All Segments are too far inland and lack suitable habitat. No potential habitat in project area |
| Alameda whipsnake<br>*Masticophis lateralis euryxanthus* | FT, ST | Chaparral, northern coastal sage scrub | Not expected to occur; none of the project Segments offers suitable habitat |
| Foothill yellow-legged frog<br>*Rana boylii* | SC, SSC, BLM:S, USFS:S | Rocky streams in a variety of habitats | Not expected to occur. Streams at Segments 29 – 31, 35, and 12 are channelized and lack the substrate and cover required by this species |
| <u>Birds</u> | | | |
| Swainson's Hawk<br>*Buteo swainsoni* | ST, USFWS:BCC, BLM:S | Forages in open grasslands and prairies. Nests adjacent to riparian habitats | Not expected to occur; sites are too urbanized and immediately surrounding areas lack suitable foraging habitat |
| Western Snowy Plover<br>*Charadrius alexandrinus nivosus* | FT, FP, SSC, USFWS:BCC | Uses coastal beaches, sand spits, sparsely vegetated dunes, beaches at creek and river mouths, and salt pans of lagoons and estuaries | Not expected to occur. Most of the project Segments are too far inland and none of the Segments (including Segment 35) offers suitable habitat |
| Western Yellow-billed Cuckoo<br>*Coccyzus americanus* | FT, SE, USFWS:BCC, BLM:S, USFS:S | Nests in riparian habitat | Not expected to occur; none of the project Segments offers suitably dense wooded thickets |

| Species | Status | Habitat Requirements | Presence at Project Segments |
|---|---|---|---|
| California Least Tern<br>*Sterna antillarum browni* | FE, SE, FP | Nest on open beaches, forages over open water | Not expected to occur; could be a casual visitor at Segment 35, but none of the Segments (including Segment 350 offers the open, unvegetated substrate needed for nesting |
| Mammals | | | |
| Ring-tailed cat<br>*Bassariscus astutus* | FP, HCP | Brushy and wooded areas, primarily at lower and middle elevations, usually within 0.5 mile of water. Dens in rock shelters and tree hollows, mammal burrows, and brush piles | Not expected to occur at any of the project Segments; sites lack suitable cover and no rock shelters, burrows, tree hollows, or brush piles were observed during site visits |
| Townsend's big-eared bat<br>*Corynorhinus townsendii* | SSC, BLM:S, USFS:S | Prefers mesic habitats. Uses caves, tunnels, mines, and buildings for maternity roosting | Not expected to occur at any of the project Segments due to lack of suitable habitat |
| Hoary bat<br>*Lasiurus cinereus* | SA | Requires forested habitat | |
| San Francisco dusky-footed woodrat<br>*Neotoma fuscipes annectens* | SSC | Riparian areas, oak woodlands, and scrub | Not expected. Riparian areas at Segments 29 – 31, 35, and 12 are too open, offering insufficient overhead cover. No signs of species were observed during site visits |
| San Joaquin kit fox<br>*Vulpes macrotis mutica* | FE, ST | Annual grassland and scrub and subshrub land; dens in friable soils or by enlarging holes created by smaller animals | Not expected to occur at any of the project Segments; sites lack open grassland/scrub habitat |

**Key to Status Abbreviations:**

FT = federally listed as Threatened
FE = federally listed as Endangered
ST = state-listed as Threatened
SE = state-listed as Endangered
FC = candidate for federal listing
SC = candidate for state listing
SOC = federal Species of Concern
SSC = state Species of Special Concern
SA = included on DFW Special Animals List
FP = fully protected under California Fish and Game Code
WL = DFW Watch List species
BLM:S = federal Bureau of Land Management Sensitive species
USFS:S = U.S. Forest Service Sensitive species
BCC = USFWS Bird of Conservation Concern
NMFS:SC = National Marine Fisheries Service Species of Concern
CNPS 1B = California Native Plant Society List 1B species ("plants rare, threatened, or endangered in California and elsewhere")
CI = critically imperiled speces

*Source: Vollmar Natural Lands Consulting 2019 (Appendix B to this Initial Study)*

The proposed project's potential to affect special-status species is discussed in the following paragraphs. Discussion focuses on the construction period, since the proposed repairs would decrease the need for maintenance activity over the long term, thereby reducing or avoiding the potential for impacts on special-status species by comparison with existing baseline conditions.

Special-Status Plants

No habitat suitable for special-status plants is present at Segment 23, Segments 29 – 31, or Segment 12; special-status plants are not expected to be present at these locations. Proposed repairs at these Segments would have No Impact on special-status plants, and no mitigation is required.

Several special-status plants have low to moderate potential to occur at Segment 35: alkali milk-vetch, Congdon's tarplant, Point Reyes bird's-beak, California sea-blite, and saline clover.

Due to the species' habitat requirements, potential occurrences of Point Reyes bird's-beak, California sea-blite, and saline clover would be restricted to the terrace and levee slope areas inboard of the Guadalupe River levee top. These areas will be strictly off-limits to all construction activity and materials under the Avoidance and Minimization Measures adopted by the City (see Section 2), with the avoidance area delineated in the field (using temporary construction fencing or another low-impact medium) by a qualified biologist. Consequently, the proposed repairs are expected to have No Impact on these species, and no mitigation is required.

There is some potential for alkali milk-vetch and Congdon's tarplant to occur in ruderal upland areas at the ends of Segment 35, including outboard levee slopes and surrounding areas outside the channel profile. Habitat quality is poor for both species, and these areas are highly disturbed, so the presence of special-status plants is considered unlikely. If they are present, however, activity to access Segment 35 via existing City manholes, and ground disturbance/excavation required for rehabilitation of manhole SSMH 114-4, could result in damage or mortality, potentially rising at its worst to a Significant Impact under CEQA. To address this potential, the City will implement the following mitigation measure. With this measure incorporated, potential impacts on alkali milk-vetch and Congdon's tarplant would be Less than Significant.

**Mitigation Measure Bio-1. Rare Plant Surveys, Protection, and Restoration at Segment 35**

Prior to work at Segment 35, the City will retain a qualified biologist or ecologist (City's Biologist) with local botanical expertise to conduct surveys for alkali milk-vetch and Congdon's tarplant. Surveys will be conducted during the peak bloom periods for the species: May – March for alkali milk-vetch and May – October for Congdon's tarplant. If neither species is present, no further action will be required and construction may proceed.

If either species is present, the City's Biologist will be responsible for defining appropriate no-disturbance buffers to protect them during construction, if this is feasible while still accomplishing the needed repairs in a safe and timely manner. Buffers will be established using temporary construction fencing or another low-impact medium installed by or under the direct supervsion of the biologist.

If the plants cannot feasibly be protected, the post-disturbance revegetation seed mix will include the species affected. Seed will be collected onsite if possible. If this is not feasible due to the timing of construction, locally native seed will be used. Following reseeding, the City's Biologist will conduct at least (1) follow-up survey next subsequent blooming period to verify successful germination. If germination was not successful, the disturbed area will be reseeded with the failed species, using locally native seed and an additional follow-up blooming period survey will be conducted.

Special-Status Wildlife

*Fishes.* Segment 23 is not in immediate proximity to any water body, and neither Calabazas Creek at Segments 29 – 31 nor San Tomas Aquino Creek at Segment 12 is expected to support special-status fishes. Work at these Segments is not expected to impact special-status fish directly, and the Avoidance and Minimization Measures incorporated into the project for water quality protection would prevent indirect impacts elsewhere in these (and other) water bodies due to habitat degradation. No Impact on special-status fishes is anticipated as a result of the proposed repairs at Segment 23, Segments 29 – 31, and Segment 12, and no mitigation is required.

The Guadalupe River is known to support steelhead and Chinook salmon, is within designated Critical Habitat for steelhead and Critical Habitat – Estuary for green sturgeon, and offers suitable habitat for white sturgeon; all of these species could be present in the channel at Segment 35, depending on the timing of construction and prevailing channel conditions when construction begins. The proposed repairs would not modify the Guadalupe River channel or banks in any way, would not involve work in or immediately adjacent to the channel, and would not result in disturbance or removal of channel, terrace, or inboard levee slope vegetation; rather, the entire area between the levee crests would be off-limits to all construction activity and materials under the Avoidance and Minimization Measures adopted by the City (see Section 2). Additionally, if it is feasible while still meeting the City's construction deadline under the 2013 River Watch Settlement Agreement, construction will occur outside the period when the salmonid run takes place in the Guadalupe River (see Section 2). With these limits in place, the proposed repairs at Segment 35 would have no potential for direct impacts on steelhead, Chinook salmon, green sturgeon, or white sturgeon. Indirect impacts due to habitat degradation would be minimized by the project Avoidance and Minimization Measures for water quality protection (see Section 2). Moreover, the location of the proposed infiltration grouting repair is well outside the low-flow channel, further reducing the potential for effects on water quality, at least during the drier summer months. No Impact on steelhead, Chinook salmon, green sturgeon, or white sturgeon is anticipated, and no mitigation is required.

*Amphibians and Reptiles.* Segment 23 is not in immediate proximity to any water body, and Calabazas Creek at Segments 29 – 31 does not offer habitat likely to attract special-status amphibians or reptiles. Work at these Segments is not expected to impact special-status amphibians or reptiles directly, and the Avoidance and Minimization Measures incorporated into the project for water quality protection would prevent indirect impacts elsewhere in these (and other) water bodies due to habitat degradation. No Impact on special-status amphibians or reptiles is anticipated as a result of the proposed repairs at Segment 23, Segments 29 – 31, and Segment 12, and no mitigation is required.

Southwestern (western) pond turtle may be present in the Guadalupe River at Segment 35 and in San Tomas Aquino Creek at Segment 12. Habitat quality is low at Segment 35 due to tidal influence, and low – moderate at Segment 12 due to channelization for flood control, and the species is considered unlikely to be present, but southwestern pond turtle is present elsewhere in the watersheds, and the channels at both Segments contain rocks (likely remobilized riprap) that offer basking opportunities. However, as discussed above, there would be no modification of channel bed or banks and no construction-related entry into the area between the levee crests at either Segment 35 or Segment 12, and therefore no potential for direct disturbance, injury, or mortality to southwestern pond turtle within the River corridor. Indirect impacts on the species due to habitat degradation would be prevented by the project Avoidance and Minimization Measures for water quality protection (see Section 2). Southwestern pond turtle is known to move overland to oviposition areas between April and August. To help avoid disturbance, injury, and mortality to individuals that may stray into neighboring uplands at Segment 35 during these months, the City has committed to including southwestern pond turtle among the species covered in Worker Awareness and Response Training for special-status species (see *Avoidance and Minimization Measures* in Section 2), and will require workers to avoid contact with, report, and coordinate with

a qualified biologist to protect any individuals that may be encountered. With this commitment in place, potential impacts on southwestern pond turtle at Segments 35 and 12 would be Less than Significant. No mitigation is required.

California red-legged frog is not expected to use San Tomas Aquino Creek at Segment 12 because the channel configuration and general lack of vegetation are inhospitable. There is some potential the species may be present at Segment 35, since the neighboring Eastside Retention Basin offers potentially suitable habitat. However, habitat quality is low, and the Retention Basin is isolated from higher-quality habitat farther up the watershed by extensive intervening development. Habitat quality is also low in the Guadalupe River in this area due to tidal influence and brackish salinities. If present, the species would not be abundant at this location. Moreover, as discussed above for southwestern pond turtle, there would be no entry into or modification of the channel area during the proposed repairs at Segment 35, and the Avoidance and Minimization Measures adopted for water quality protection would avoid further degradation of potential habitat. To help avoid disturbance, injury, and mortality to individuals that may stray into neighboring uplands, the City has committed to including California red-legged frog among the species covered in Worker Awareness and Response Training for special-status species, and will require workers to avoid contact with, report, and coordinate with a qualifed biologist to protect any individuals that may be encountered. With this commitment in place, potential impacts on California red-legged frog at Segment 35 would be Less than Significant. No mitigation is required.

*Nesting Birds.* Although the project Segments are located in urbanized areas, all Segments have some potential to support protected nesting birds, including a number of special-status species as well as common migratory and non-migratory species. At all of the Segments, if work occurs during the nesting season, construction-related activity and noise would have the potential to disturb nesting birds, potentially resulting in nest abandonment and nesting failure. This could constitute a Significant Impact under CEQA. To address this concern, the City will implement the following mitigation measures. With Mitigation Measures Bio-2 through Bio-5 incorporated, construction period impacts on nesting birds, including nesting special-status species, would be Less than Significant.

**Mitigation Measure Bio-2. Protection of Nesting Birds (General) at All Segments**

If feasible, construction at all Segments will be scheduled between September 1 and January 31, outside the February 1 – August 31 nesting period.

If construction at any Segment occurs during the nesting period, the City will retain a qualified biologist to conduct a pre-construction nesting bird survey covering the Segment footprint and a 300-foot-wide surrounding buffer. The survey will be conducted within 2 weeks of the start of construction-related activity at the Segment. If active nest(s) of any species are identified within the 300-foot-wide survey area, a no-activity buffer will be established around the nest for the duration of the nesting season, or until a biologist determines the young have fledged and left the nest, or that the nest has been abandoned. No entry into the no-activity buffer will be permitted. The no-activity buffer will be delineated in the field by or under the supervision of the biologist, using temporary construction fencing or another suitable low-impact medium. The width of the buffer will be determined by the biologist, based on the species involved, the amount of vegetative and other screening between the nest and areas where construction activity will take place, and, if appropriate, other site-specific factors. If special-status species are involved, the biologist will consult with the appropriate resource agency(ies) (DFW and/or USFWS) in determining the width of the buffer.

**Mitigation Measure Bio-3. Protection of Nesting Tricolored Blackbird at Segment 35**

If repair work at Segment 35 occurs during the Tricolored Blackbird nesting period (March 15 – July 31), the City will retain a qualifed biologist (City's biologist) to make a good-faith best effort to determine if nesting has occurred within 300-feet of Segment 35 within the past 5 years, based on review of the CNDDB, field survey for old nests, contact with local experts and resource agency staff, etc. If evidence of nesting within the last 5 years is discovered, the species will be presumed present.

If no evidence of nesting within the past 5 years is identified, the species' presence will be considered undetermined, and the City's biologist will conduct a preconstruction survey in bulrushes and cattail habitat along and within 250 feet of Segment 35 in order to document the presence or absence of nesting colonies of Tricolored Blackbird. Surveys will be conducted during the Tricolored Blackbird nesting period and will conclude no more than 2 calendar days prior to construction.

If nesting activity is detected, construction activities will be prohibited within a 250 foot no-activity buffer around the edge of all hydric vegetation associated with the colony, until or unless the City's biologist determines that nesting activity has concluded, with all young successfully fledged, or nests abandoned. The City's biologist will monitor construction to ensure that the 250-foot buffer zone is enforced. If monitoring indicates that construction outside the buffer is affecting a breeding colony, the buffer will be increased as space allows. If space does not allow, construction will cease until the colony abandons the site or until the end of the breeding season, whichever comes first.

**Mitigation Measure Bio-4. Protection of Nesting California Black Rail and California Ridgway's Rail at Segment 35**

If repair work at Segment 35 occurs during the California Black Rail/Ridgway's Rail nesting season (February 1 – August 31), the following precautions will be required.

- Protocol-level surveys will be conducted by a DFW-approved biologist for California Black Rail and by a USFWS- and DFW-approved biologist for Ridgway's Rail to identify breeding locations and territories, if any
- If breeding rails are determined to be present, all activity within 700 feet of an identified calling center/nesting area will be prohibited until nesting is complete, as verified by the appropriately qualified biologist, or the end of the nesting season, whichever comes first.

**Mitigation Measure Bio-5. Protection of Nesting Western Burrowing Owls at Segments 35 and 12**

If repair work at Segment 35 or Segment 12 occurs during the Western Burrowing Owl nesting season (February 1 – August 31), the City will retain a qualified biologist to conduct preconstruction surveys covering all areas of suitable habitat within 250 feet of the Segment. The survey will last a minimum of 3 hours, and will either begin 1 hour before sunrise and continue until 2 hours after sunrise or begin 2 hours before sunset and continue until 1 hour after sunset. If no owls are detected during a first survey, a second survey will be conducted. If owls are detected during the first survey, a second survey is not needed. All owls observed will be counted and their locations will be mapped.

If evidence of nesting Western Burrowing Owls is found, a 250-foot-wide no-disturbance buffer zone will be established around each occupied nest and will be delineated in the field by the biologist, using a suitable low-impact medium. Construction may proceed outside the no-disturbance buffer zones.

*Special-Status Bats.* Two special-status bat species may forage and roost in the vicinity of Segment 35: pallid bat and western red bat. However, the proposed repairs at Segment 35 would not require removal of trees or

modification or removal of built features such as bridges or buildings that could also provide roosting habitat. There would thus be no effect on bat roosting and no potential for injury or mortality of individuals, although foraging opportunities could be slightly reduced during and immediately following construction due to disturbance and possibly also due to localized vegetation removal for manhole rehabilitation. These effects would be short-term and limited in extent, though, and are not expected to be detrimental to pallid bat or western bat populations in the area. Impacts on special-status bats, if any, are therefore considered Less than Significant. No mitigation is required.

*Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew.* Salt marsh habitat at Segment 35 may host salt marsh harvest mouse and/or salt marsh wandering shrew. However, under the Avoidance and Minimization Measures adopted by the City (see Section 2) there would be no entry into marshland areas during construction at Segment 35, and thus no potential for injury or mortality to individuals and no potential for loss or degradation of habitat due to trampling. Additional insurance against habitat degradation would be provided by the adopted Avoidance and Minimization Measures for water quality protection. As a result, No Impact on salt marsh harvest mouse or salt marsh wandering shrew is anticipated, and no mitigation is required.

### Potential for Adverse Effects on Sensitive Natural Communities

Sensitive natural communities in the vicinity of the project Segments include open channel, marshland/wetland and levee slope areas at Segment 35 and open channel and limited riparian areas at Segments 29 – 31 and Segment 12. Under the Avoidance and Minimization Measures adopted by the City (see Section 2) there would be no entry into any area of sensitive habitat during construction at any of the Segments, and thus no potential for loss or degradation of habitat due to trampling. Additional insurance against habitat degradation would be provided by the adopted Avoidance and Minimization Measures for water quality protection. The proposed repairs are therefore expected to have No Impact on Sensitive Natural Communities, and no mitigation is required.

### Potential for Adverse Effects on Protected Wetlands

As discussed under the previous item, none of the proposed repairs would entail entry into or disturbance of any area of protected wetland or other protected Waters, and additional insurance against adverse effects on wetlands and other Waters would be provided by the Avoidance and Minimization Measures adopted for water quality protection. As a result, No Impact on protected wetlands or other protected Waters is anticipated, and no mitigation is required.

### Potential to Interfere with Wildlife Movement or Nursery Sites

Segments 23, 29 – 31, and 12 are highly urbanized and do not offer wildlife nursery sites or overland wildlife corridors, and neither Calabazas Creek nor San Tomas Aquino Creek is known to support listed salmonids (Bilski 2018). However, some limited wildlife movement likely occurs along Calabazas Creek at Segments 29 – 31 and along San Tomas Aquino Creek at Segment 12; creeks are often important corridors for wildlife movement in urban areas.

The vicinity of Segment 35 is not documented as supporting wildlife nursery sites and the biological evaluation conducted for the proposed repairs (Vollmar Natural Lands Consulting 2019) did not identify any potential nursery sites. However, the Guadalupe River supports both a steelhead run and a Chinook salmon run, conveying salmonids upstream for spawning and enabling maturing smolts to return to the Bay, and ultimately the Pacific Ocean, for their adult years. As such the Guadalupe River represents a critical wildlife corridor for listed salmonids. Like all urbanized streams, it is also assumed to enable up- and downstream movement by other aquatic and terrestrial wildlife. However, none of the proposed repairs would result in new above-grade

structures of any kind, and as discussed in previous items, no entry would be permitted into sensitive creek habitat during construction, and salmonid habitat in the Guadalupe River would be further protection by the adopted Avoidance and Minimization Measures for water quality protection, described in detail in Section 2.

The proposed repairs at Segment 23 would have No Impact on wildlife nursery sites or wildlife corridors, since neither is present in the immediate vicinity of Segment 23. Repairs at Segments 29 – 31, 35, and 12 are also expected to have No Impact on wildlife nursery sites and wildlife corridors, in view of the adopted Avoidance and Minimization Measures. No mitigation is required.

## Potential to Conflict with Local Policies/Ordinances Protecting Biological Resources

The City's Tree Ordinance (Santa Clara Municipal Code 12.35.020) prohibits removal of trees, shrubs, and other plantings from City streets and public spaces without a permit from the Superintendant of Streets. Excavation that may damage public trees or other public plantings is also prohibited without a permit. These requirements apply to private development projects, and enable the City to maintain the green character of public spaces.

Projects proposed and carried out by the City are not subject to the Tree Ordinance. Instead, the City conducts an internal review and does not unnecessarily remove or disturb trees or landscaping.

No removal of trees or other landscaping is anticipated for the proposed repairs. The only locations where excavation is expected to be necessary are at Segment 23 (for reconnection of existing sewer laterals with the main in Saratoga Avenue), at the north end of Segment 30 (for removal and replacement of SSMH 62-40), and at the east end of Segment 35 (for rehabilitation of SSMH 114-4). At Segment 23, the point of connection between the sewer laterals and the Saratoga Avenue main is well outside the dripline of neighboring landscape trees. At Segment 30, SSMH 62-40 is also outside the dripline of adjacent landscape trees and shrubs. Tree/landscaping removal will not be necessary at these locations. No trees are present in the immediate surrounds of SSMH 114-4, and the area disturbed for rehabilitation of the manhole would be revegetated per the Avoidance and Minimization Measures for water quality protection (discussed in Section 2) and Mitigation Measure Bio-1 (discussed above). There would thus be No Impact related to conflict with the City's Tree Ordinance at any of the project Segments, and no mitigation is required.

The City's General Plan (City of Santa Clara 2014) also contains several Conservation Goals and a number of supporting policies aimed at protecting the City's natural resources, including the following.

- Goal 5.10.1-G1: The protection of fish, wildlife and their habitats, including rare and endangered species
- Goal 5.10.1-G2: Conservation and restoration of riparian vegetation and habitat
- Goal 5.10.1-G3: Adequate solid waste disposal capacity through effective programs for recycling and composting
- Goal 5.10.1-G4: Adequate wastewater treatment and conveyance capacities

The proposed projects would restore wastewater conveyance capacity and reliability and as such would help to implement Goal 5.10.1-G4. As discussed in the other items in this checklist section, the proposed projects are also explicitly consistent with Goals 5.10.1-G1 and 5.10.1-G2. Goal 5.10.1-G3 is not directly relevant to the proposed projects, but they are not inconsistent with it. There would be No Impact related to a conflict with General Plan goals or policies protecting biological resources, and no mitigation is required.

### Potential to Conflict with an Adopted Conservation Plan

The only adopted conservation plan in the project area is the Santa Clara Valley Habitat Plan (County of Santa Clara et al. 2012). The City is not a signatory to the Plan; there is thus no adopted conservation plan covering the project Segments and their immediate vicinities, and no potential for conflict with such a plan. Nonetheless, the Avoidance and Minimization Measures in the Santa Clara Valley Habitat Plan were taken into consideration in developing the Avoidance and Minimization Measures adopted for the proposed projects, as well as the mitigation measures identified in this section. In view of these factors, there would be No Impact related to conflict with an adopted conservation plan, and no mitigation is required.

## References Cited in this Section

Bilski, M. 2018. Email to Anna Buising (Redtail Consulting) and Jake Schweitzer (Vollmar Natural Lands Consulting), dated November 5, 2018. On file with Redtail Consulting, Fremont, CA.

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County of Santa Clara, City of San José, City of Morgan Hill, City of Gilroy, Santa Clara Valley Water District, and Santa Clara Valley Transportation Authority. 2012. Final Santa Clara Valley Habitat Plan, Santa Clara County, California. Available: https://scv-habitatagency.org/178/Santa-Clara-Valley-Habitat-Plan. Accessed: July 2018.

Vollmar Natural Lands Consulting. 2019. Biological Evaluation, Sanitary Sewer Condition Assessment Repairs Program, City of Santa Clara, Santa Clara County, California. Berkeley, CA. Prepared for Redtail Consulting, Fremont, CA; Mott MacDonald, San José, CA; and City of Santa Clara. (Appendix B to this Initial Study.)

| **V. CULTURAL RESOURCES**<br><br>*Would the project:* | **Potentially Significant Impact** | **Less Than Significant with Mitigation Incorporated** | **Less Than Significant Impact** | **No Impact** |
|---|---|---|---|---|
| (a) Cause a substantial adverse change in the significance of a historical resource pursuant to *CEQA Guidelines* Section 15064.5? | ☐ | ☐ | ☐ | ■ |
| (b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to *CEQA Guidelines* Section 15064.5? | ☐ | ■ | ☐ | ☐ |
| (c) Disturb any human remains, including those interred outside of formal cemeteries? | ☐ | ■ | ☐ | ☐ |

## Discussion of Checklist Responses

### CEQA Requirements

CEQA protects historical resources in general, and also extends specific guidance for the treatment of artifacts, objects, and sites that qualify as unique archaeological resources.

As defined under CEQA, *historical resources* encompass the span of the state's prehistoric and historic heritage. They include sites, buildings, structures, areas, objects, and documents that are historically or archaeologically significant, or significant in the "architectural, engineering, scientific, economic, educational, social, political, or cultural annals of California," and meet one or more of the following criteria.

(1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage

(2) Is associated with the lives of persons important in our past

(3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values

(4) Has yielded, or may be likely to yield, information important in prehistory or history (*CEQA Guidelines* 15064.5[a][3])

Resources included on the California Register of Historical Resources (CRHR), or on a local register, typically meet these requirements and are considered historical resources for CEQA purposes (*CEQA Guidelines* 15064.5[a][1–2]. Additionally, lead agencies may determine that a resource that does not qualify for CRHR or local register listing is nonetheless significant and may treat it as a historical resource meriting protection under CEQA (*CEQA Guidelines* 15064.5[a][4]).

*Unique archaeological resources* are resources with particularly important informational or heritage value. They are defined in the CEQA statute as including artifacts, objects, and sites that meet any of the following criteria.

- Contains information needed to answer important scientific research questions and in which there is a demonstrable public interest
- Has a special and particular quality such as being the oldest of its type or the best available example of its type
- Is directly associated with a scientifically recognized important prehistoric or historic event or person (California Public Resources Code 21083.2[g])

The CEQA statute and *CEQA Guidelines* require lead agencies to evaluate the potential for projects they undertake, permit, or fund to affect historical resources, including both non-unique and unique archaeological resources (California Public Resources Code 21083.2, *CEQA Guidelines* 15064.5). Project outcomes that would materially affect the significance of a historical resource are considered significant impacts under CEQA. Such outcomes include physical demolition, destruction, relocation, and alteration of the resource or its immediate surroundings (its context) (*CEQA Guidelines* 15064.5[b][2]). CEQA also identifies means to evaluate and mitigate impacts on historical resources (California Public Resources Code 21083.2).

### Historical Resources Evaluation for Proposed Projects

The historical resources review conducted for the proposed repairs (Basin Research Associates 2019a, 2019b, 2019c, 2019d) is described in the technical studies presented as Appendix C to this IS/MND.

For Segments 23, 29 – 31, and 12, the historical resources review was conducted in accordance with the requirements of CEQA and the *CEQA Guidelines*, and included the following activities.

- A search of records on file with the California Historical Resources Information System's Northwest Information Center (CHRIS/NWIC) for information on prior studies and known historical resources within the each of the project Segment footprints and a surrounding 250-foot-wide buffer
- Review of historic register listings, including the National Register of Historic Places, the CRHR, the state's Historic Properties Directory for Santa Clara County, and other sources
- Review of relevant materials on file inhouse and at the University of California Bancroft Library
- Outreach to the Native American Heritage Commission (NAHC) for information in their Sacred Lands File
- Outreach to local Native American individuals and groups identified by the NAHC as potentially able to provide additional information

For Segment 35, which will require federal permit authorization, the historical resources review was conducted in accordance with the requirements of Section 106 of the National Historic Preservation Act (NHPA). The resulting Historic Property Survey Report (HPSR) for Segment 35 (Basin Research Associates 2019d) is also presented in Appendix C.

Typically, evaluations of this type would include a pedestrian reconnaissance survey of the project footprints, to assess the potential that previously unrecorded resources may be present. In this case, however, the proposed work would be almost entirely confined within existing sewer pipes and manholes, with very minor, localized ground disturbance in a few locations, and the project footprints are extensively developed and disturbed and are largely paved, such that native soils are not exposed. As a result, pedestrian reconnaissance was not conducted.

Table 3-6 summarizes the results of the historic resources evaluations conducted for each of the project Segments.

**Table 3-6. Results of Historical Resources Evaluations**

| Source | Research Findings |
|---|---|
| Historic registers review | No federally listed, state-listed, County-listed, or City-listed resources are present along or adjacent to any of the project Segments |
| NAHC Sacred Lands File | The *Sacred Lands Inventory* lists no resources within the search area for any of the project Segments |
| Outreach to local Native American individuals and groups | For all Segments, letters were sent to the contacts recommended by NAHC (see technical memoranda and HPSR in Appendix C). Additional follow-up outreach was conducted by telephone and email. Results, and the recommendations of the Native American contacts who provided input, are summarized in the *Record of Native American Contacts* included as an attachment to the HPSR in Appendix C) |
| CHRIS/NWIC records search | **Segment 23**<br>No prehistoric, combined prehistoric/historic, or historic-era archaeological or built-environment sites have been recorded or reported within 250-feet of Segment 23. Based on the lack of recorded resources in the immediate vicinity, the lack of unexpected discoveries in the area over the past 50-plus years of development activity, and the highly disturbed condition of the existing substrate as a |

| Source | Research Findings |
|---|---|
| | result of this history of development, the vicinity of Segment 23 is evaluated as having low sensitivity for archaeological resources<br><br>**Segments 29 – 31**<br><br>No prehistoric, combined prehistoric/historic, or historic-era archaeological or built-environment sites have been recorded or reported within 250-feet of Segments 29 – 31. However, a probable prehistoric habitation site (SCL-0134/H) with known Native American burials and historic archaeological cultural materials is present to the northwest. This site has been inspected during at least 5 archaeological inventories over the past 45 years and has been subject to several testing and data recovery programs since the 1990s. Subsurface (auger and test unit) exploration in the early 1990s confirmed the presence of culturally affected (midden) soils to a depth of about 3 feet on the west bank of Calabazas Creek near Central Expressway, although the upper 30 inches were identified as disturbed<br><br>Culturally affected soil has not been documented on the east bank of the Creek where Segments 29 – 31 are located. Archaeological monitoring during 2018 construction at 3305 Kifer Road, about 200 – 500-feet west of Segments 29 – 31, did not encounter archaeological materials, and monitoring efforts for other projects along Corvin Drive in the vicinity have also resulted in negative observations<br><br>Like Segment 23, the substrate in the vicinity of Segments 29 – 31 has been extensively disturbed, in this case not only by development but also by channelization of Calabazas Creek. Prior to that, because of its proximity to the Creek channel, it would have been subject to periodic scouring by floodwaters. Based on the general lack of recorded sites in the area, the lack of midden soils on the east bank of the Creek, and the uniformly negative results from recent monitoring efforts in the area, the vicinity of Segments 29 – 31 on the east bank of Calabazas Creek is evaluated as having low – moderate sensitivity for archaeological resources<br><br>**Segment 35**<br><br>Two sites have been recorded within 250-feet of Segment 35.<br><br>P-43-000025 (CA-SCL-5), a prehistoric shellmound site originally identified in the early 1900s has been mapped between 300 and 650 feet south of SR 237 with its probable northern boundary just to the south of Segment 35 on the west bank of the Guadalupe River. Extensive studies conducted in 2012 for a nearby PG&E project found no indications of surface or subsurface cultural materials in the plotted location of the resource, and other studies, including Caltrans studies of the SR 237 right-of-way have identified no cultural resources where SR 237 crosses the Guadalupe River. The data suggest that the site is no longer extant; it may have been destroyed when the lower Guadalupe River was straightened and channelized in 1963<br><br>P-43-003593, Oakcrest Estates, is a built environment site consisting of a planned community of pre-fabricated mobile home residences constructed in 1975 at 4271 North First Street, within the City of San José<br><br>**Segment 12**<br><br>No prehistoric, combined prehistoric/historic, or historic-era archaeological or built-environment sites have been recorded or reported within 250-feet of Segment 12. Like the other Segments, the substrate in the vicinity of Segment 12 has been extensively disturbed, not only by development but also by channelization of San Tomas Aquino Creek. Prior to that, because of its proximity to the Creek channel, it would have been subject to periodic scouring by floodwaters. Based on the area's disturbed condition, the lack of recorded resources in the immediate vicinity, and the lack of unexpected discoveries in the area over the past 50-plus years, including during earthwork for flood protection improvements and excavation for numerous underground utility installations, the vicinity of Segment 12 is evaluated as having very low sensitivity for archaeological resources |

*Source: Basin Research Associates 2019a, 2019b, 2019c, 2019d (Appendix C to this IS/MND)*

## Potential for Adverse Change in Significance of Historical Resources

As described in Table 3-6, no historic resources are present along or in proximity to Segment 23, Segments 29 – 31, or Segment 12. Moreover, the proposed repairs would not result in any new above-grade installations and thus would not affect the overall context of the surrounding built environment in the vicinity of these Segments. The proposed repairs at Segment 35 would have no potential for direct impacts on Oakcrest Estates (P-43-003593), located at 4271 North First Street, and—because the work would involve existing, largely subsurface, infrastructure—would not modify this site's context. As a result, the proposed repairs would have No Impact on historic resources, and no mitigation is required. (Please note that archaeological resources are discussed in the next paragraph.)

## Potential for Adverse Change in Significance of Archaeological Resources

No unique archaeological resources have been identified in the vicinity of any of the project Segments, and based on the results summarized in Table 3-6 (and discussed in more detail in the technical memoranda and HPSR in Appendix C), none of the Segments is considered highly sensitive for archaeological resources. No previously recorded archaeological resources are present at or near Segment 23 or Segment 12, and at Segments 29 – 31, results of previous subsurface exploration in the 1990s as well as more recent archaeological monitoring for projects along Corvin Drive suggest that recorded site SCL-0134/H is limited to the west bank of Calabazas Creek. At Segment 35, all indications are that the prehistoric shell mound site most recently recorded as P-43-000025 (CA-SCL-5) is no longer extant, possibly having been destroyed when the lower Guadalupe River was channelized for flood protection in the early 1960s.

The limited excavation required to reconnect sewer laterals at Segment 23 and for manhole replacement at Segment 30 and manhole rehabilitation at Segment 35 is accordingly not expected to affect archaeological resources. Nonetheless—as always with ground disturbance in the Bay Area—there may be some potential for unanticipated discoveries during excavation. At worst, disturbance or destruction of such resources could rise to a level considered Significant under CEQA. To address the potential for unanticipated discoveries during project construction and maintenance, the City will implement the following mitigation measure. With this measure incorporated, impacts related to potential disturbance and destruction of archaeological resources would be reduced to a level considered Less than Significant under CEQA.

**Mitigation Measure CuI-1. Notice of Potential for Buried Cultural Resources in Construction Documents**

The potential to encounter buried cultural resources, including Native American burials, will be noted in the project construction documents.

**Mitigation Measure CuI-2. Retention of On-Call Archaeologist**

Prior to construction, the City will retain a qualified professional archaeologist (City's Archaeologist) with experience in northern and central California archaeology on an on-call basis for the duration of all ground-disturbing activities. The City's Archaeologist will be responsible for reviewing, identifying, and evaluating cultural resources (if any) exposed during construction, for determining whether they qualify as *historic resource(s)* and/or *unique archaeological resource(s)* under CEQA, and, if needed, recommending and implementing appropriate follow-up treatment.

**Mitigation Measure CuI-3. Worker Awareness Training for Cultural Resources**

Prior to groundbreaking at the Segments where ground disturbance/excavation is required (Segment 23, Segment 30, and Segment 35), the City's Archaeologist (defined in Mitigation Measure CuI-2) will develop and present in-person, hands-on worker awareness training for historical resources. Training

will include information on the possibility of encountering resources during construction; the types of resources that may be seen and how to recognize them; and proper procedures in the event resources are encountered. All field management and supervisory personnel and construction workers involved with ground-disturbing activities will be required to take this training prior to beginning work on the project. Upon completion of the training, workers will be required to sign a form stating that they attended the training, understand, and will comply with the information presented.

**Mitigation Measure Cul-4. Evaluation and Treatment of Unanticipated Archaeological Discoveries**

If known or suspected cultural resources are discovered during construction, work in the immediate area of the find will cease and the contractor will be required to notify the City before the end of the work day. The find will be protected in place until the City's Archaeologist and a trained and qualified Native American monitor who can prove genealogical relationship to the greater San Francisco Bay Area have evaluated it and identified appropriate follow-up measures, if any. If the City's Archaeologist determines that the resource qualifies as a *historical resource* and/or *unique archaeological resource* under CEQA, he/she will notify the City and other appropriate parties and recommend follow-up measures to reduce impacts, in accordance with Section 15064.5 of the *CEQA Guidelines*. Depending on the nature of the find, follow-up measures may include avoidance, preservation in place, recordation, monitoring during ongoing work, additional archaeological testing, and data recovery, among other options. The City's Archaeologist may recommend completion of a formal Archaeological Monitoring Plan (AMP) and/or Archaeological Treatment Plan (ATP), potentially including data recovery, if significant archaeological deposits are exposed during ground- disturbing activities. The City will be responsible for proper implementation of the AMP and ATP. If an AMP or ATP is implemented at Segment 35, the City will consult with the U.S. Army Corps of Engineers and, if appropriate, other regulatory agencies, in developing and implementing the AMP and ATP.

If archaeological evaluation, monitoring, or treatment is required, the City's Archaeologist will prepare and file a Monitoring Closure Report with the City, documenting the nature of the find(s), evaluation methods, and outcomes.

## Potential for Disturbance of Human Remains

Because the areas around the project Segments are generally not considered sensitive for archaeological resources, project-related ground disturbance is considered unlikely to encounter or disturb human remains. The possibility cannot be entirely ruled out, however, and any disturbance of human remains would constitute a Significant impact under CEQA. To address the potential for unanticipated disturbance of human remains, the City will implement the following mitigation measure. With this measure incorporated, impacts related to potential disturbance of human remains during project construction and maintenance would be Less than Significant.

**Mitigation Measure Cul-5. Procedures for Discovery of Human Remains**

The treatment of human remains and funerary objects discovered during any project related ground-disturbing activity will comply with all applicable state laws. If known or potential human remains are encountered during project-related activities, work within 50 feet of the discovery and in any nearby areas reasonably suspected to overlie adjacent remains will cease, the find will be protected in place, and the contractor will be required to notify the City before the end of the work day. The City will promptly notify the Santa Clara County Coroner, who will be responsible for determining whether the remains are Native American. If the Coroner determines that the remains are Native American and are

not subject to his/her authority, he/she will notify the Native American Heritage Commission, which is responsible for identifying and notifying descendant(s) of the deceased so they can make recommendations regarding the treatment of the remains. The City will be responsible for facilitating the disposition of remains recommended by the Most Likely Descendant(s). If no satisfactory agreement can be reached as to the disposition of the remains pursuant to state law, the City will respectfully reinter the human remains and items associated with the burial on City property in a location not subject to further subsurface disturbance. A final report detailing the find, follow-up activities, and disposition of remains will be prepared by the City's Archaeologist or other qualified staff, and will be submitted to the City's Director of Community Development promptly following disposition of the remains. The report will be subject to review and approval by the City's Director of Community Development.

## References Cited in this Section

Basin Research Associates. 2019a. Archaeological Review (CEQA), Segments 29 – 31 (Kifer Road and Oakmead Parkway), City of Santa Clara Sanitary Sewer Condition Assessment Repairs. San Leandro, CA. Prepared for Redtail Consulting, Fremont, CA; Mott MacDonald, San José, CA; and City of Santa Clara. (Appendix C to this Initial Study.)

Basin Research Associates. 2019b. Archaeological Review (CEQA), Segment 23 (Saratoga Avenue), City of Santa Clara Sanitary Sewer Condition Assessment Repairs. San Leandro, CA. Prepared for Redtail Consulting, Fremont, CA; Mott MacDonald, San José, CA; and City of Santa Clara. (Appendix C to this Initial Study.)

Basin Research Associates. 2019c. Archaeological Review (CEQA), Segment 12 (San Tomas Aquino Creek), City of Santa Clara Sanitary Sewer Condition Assessment Repairs. San Leandro, CA. Prepared for Redtail Consulting, Fremont, CA; Mott MacDonald, San José, CA; and City of Santa Clara. (Appendix C to this Initial Study.)

Basin Research Associates. 2019d. Historic Property Survey Report/Finding of Effect (No Historic Properties Affected), City of Santa Clara Sanitary Sewer Condition Assessment Repairs, Segment 35. San Leandro, CA. Prepared for Redtail Consulting, Fremont, CA; Mott MacDonald, San José, CA; and City of Santa Clara. (Appendix C to this Initial Study.)

| **VI. ENERGY**<br><br>*Would the project:* | **Potentially Significant Impact** | **Less Than Significant with Mitigation Incorporated** | **Less Than Significant Impact** | **No Impact** |
|---|---|---|---|---|
| (a) Result in potentially significant environmental impact(s) due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation? | ☐ | ☐ | ☐ | ■ (long-term Benefit) |
| (b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? | ☐ | ☐ | ☐ | ■ |

## Discussion of Checklist Responses

### Potential to Result in Wasteful, Inefficient, or Unnecessary Energy Consumption

Implementation of the proposed repairs would entail direct consumption of energy in the form of vehicle and hand equipment fuels and possibly also grid electricity. It would also entail indirect consumption of the energy associated with production of the materials used in the repairs: the liners, resins, and curing media used in CIPP lining at Segments 23, 29 – 31, and 12; the grout and curing media needed for infiltration grouting at Segment 35; and the materials required for manhole rehabilitation at various Segments. However, the scope of activities at each Segment would be extremely limited and the duration of the work would be short, effectively limiting the extent of direct energy consumption. The volume of materials used would also be limited by the focused scope of the repair activities, reducing indirect consumption of materials. Additionally, it will be in the contractor's best economic interests to avoid waste of materials, placing an additional pragmatic limit on the potential for indirect energy consumption. As a result, No Impact is anticipated with regard to wasteful, inefficient, or unnecessary consumption of energy resources during construction. No mitigation is required.

Once the facilities at Segments 23, 29 – 31, 35, and 12 are repaired, normal operations and maintenance of these Segments would resume. Maintenance needs would likely decrease by comparison with pre-project conditions, since the repairs would restore the integrity of the project Segments. Consequently, there would be no long-term increase in direct or indirect energy consumption as a result of the proposed repairs, and, over the long term, No Impact with regard to wasteful, inefficient, or unnecessary consumption of energy resources. Rather, with the need for maintenance decreased, there would likely be a long-term Benefit with regard to energy consumption. No mitigation is required.

### Potential to Conflict with or Obstruct Energy-Related Plans

In 2013, as mandated by the current City General Plan (City of Santa Clara 2014)[9], the City adopted its Climate Action Plan (City of Santa Clara 2013), which was developed in consistency with the following.

- California AB 32 (California Global Warming Solutions Act of 2006)
- California SB 375 (Sustainable Communities and Climate Protection Act of 2008)
- Amendments to the *CEQA Guidelines* adopted in 2009, revising the Guidelines to specifically address GHG emissions and laying out a process to streamline review of certain projects by lead agencies with a qualifying GHG reductions plan in place

While not technically a renewable energy or energy efficiency plan, the Climate Action Plan does emphasize sustainability and lays out a range of strategies to conserve fuel and reduce energy consumption along with approaches to reduce greenhouse gas (GHG) emissions. It includes measures to be implemented internally by City departments, measures to be implemented in partnership with other agencies, and goals applicable to future development within the City. Internal City measures include some programs applicable to the City's Water & Sewer Utility, but none of these are directly relevant to comparatively small repairs to existing infrastructure such as the proposed projects. Nonetheless, by supporting efficient operation of the City's sanitary sewer system, the proposed projects are considered broadly consistent with the Climate Action Plan's emphasis on sustainability, and they would not in any way impede Climate Action Plan implementation. There would be No

[9] The City's current General Plan was adopted in 2010 and updated in 2014.

Impact with regard to conflict with or obstruction of a state or local plan for renewable energy or energy efficiency, and no mitigation is required.

## References Cited in this Section

City of Santa Clara. 2014. Celebrating Our Past, Present and Future: City of Santa Clara 2010 – 2035 General Plan. Last updated December 2014. Available: http://santaclaraca.gov/government/departments/community-development/planning-division/general-plan. Downloaded: January 2019.

City of Santa Clara. 2013. Climate Action Plan. Available: http://santaclaraca.gov/government/departments/community-development/planning-division/general-plan/climate-action-plan. Downloaded: January 2019.

| **VII. GEOLOGY & SOILS**<br><br>*Would the project:* | **Potentially Significant Impact** | **Less Than Significant with Mitigation Incorporated** | **Less Than Significant Impact** | **No Impact** |
|---|---|---|---|---|
| (a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |
| (i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? | ☐ | ☐ | ☐ | ■ |
| (ii) Strong seismic ground shaking? | ☐ | ☐ | ☐ | ■ |
| (iii) Seismic-related ground failure, including liquefaction? | ☐ | ☐ | ☐ | ■ |
| (iv) Landslides? | ☐ | ☐ | ☐ | ■ |
| (b) Result in substantial soil erosion or the loss of topsoil? | ☐ | ☐ | ■ (topsoil loss, Segment 35) | ■ (soil erosion, all Segments; topsoil loss, all Segments except 35 ) |
| (c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, or collapse? | ☐ | ☐ | ■ (compressible soils, Segment 35; excavation instability, all Segments) | ■ (compressible soils, all Segments except 35 ) |

| VII. GEOLOGY & SOILS<br><br>*Would the project:* | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| (d) Be located on expansive soil, as defined in the applicable building code, creating substantial direct or indirect risks to life or property? | ☐ | ☐ | ☐ | ■ |
| (e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water? | ☐ | ☐ | ☐ | ■ |
| (f) Directly or indirectly destroy a unique paleontological resource or site or a unique geologic feature? | ☐ | ■ (paleontological resources, Segments 23, 30, and 35) | ☐ | ■ (paleontological resources, other Segments; unique geologic features, all Segments) |

## Discussion of Checklist Responses

The evaluation and mitigation of geologic hazards are regulated at state and local levels. The principal state regulations governing assessment and mitigation of risks related to geologic hazards are California's Alquist-Priolo Earthquake Fault Zoning Act and Seismic Hazards Mapping Act, which establish statewide processes to identify hazard areas and assign local jurisdictions the responsibility of evaluating and mitigating hazards within designated hazard areas.

The Alquist-Priolo Earthquake Fault Zoning Act (California Public Resources Code Sec. 2621 *et seq*.) prohibits the location of most types of structures intended for human occupancy across the traces of active faults and strictly regulates construction in the corridors along active faults (Earthquake Fault Zones). It defines criteria for identifying active faults, giving legal weight to terms such as "active," and establishes a process for local jurisdiction review of building proposals within Earthquake Fault Zones.

Like the Alquist-Priolo Act, the Seismic Hazards Mapping Act (California Public Resources Code Sections 2690–2699.6) is intended to reduce damage resulting from earthquakes. While the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act focuses on corollary or "secondary" hazards, including liquefaction[10] and seismically induced landslides. Under the Seismic Hazards Mapping Act, the state is charged with identifying and mapping areas at risk of secondary seismic hazards, and cities and counties are required to regulate development within mapped Seismic Hazard Zones. Permit review is the primary mechanism for local regulation of development; local jurisdictions are prohibited from issuing development permits for sites within

[10] *Liquefaction* occurs when seismic groundshaking causes saturated materials in the subsurface to lose their strength and flow, or behave as a liquid, and can lead to substantial structural damage, particularly to poorly designed structures.

designated Seismic Hazard Zones until appropriate site-specific geologic and geotechnical investigations have been conducted and measures to reduce potential damage have been incorporated into the development plans.

The California Geological Survey publishes regulatory maps (available at http://maps.conservation.ca.gov/cgs/informationwarehouse/regulatorymaps/) showing the location and extent of the state's Earthquake Fault Zones and Seismic Hazards Zones. Local jurisdictions must enforce the requirements of the Alquist-Priolo Act and Seismic Hazards Mapping Act within the areas delineated on the state's regulatory maps, but may also choose to zone additional faults as active or identify additional areas at risk from secondary seismic hazards. Santa Clara County is one of the California jurisdictions that have elected to publish and enforce additional hazard zoning. The County Geologic Hazard Zones maps are available at www.sccgov.org/sites/dpd/PlansOrdinances/GeoHazards/Pages/GeoMaps.aspx.

Building codes, which are relevant to geologic hazards and seismic safety because they establish standards for earthwork/grading, foundation design, and seismic safety, are adopted at the local jurisdiction level. The City's adopted building code is the 2016 California Building Standards Code, inclusive of Appendix J (*Grading*).

## Potential for Exposure to Surface Fault Rupture

None of the project Segments is within or in close proximity to any Earthquake Fault Zone defined by the State of California or the County of Santa Clara (California Geological Survey 2004, County of Santa Clara 2015). As a result they are considered to be at minimal risk from surface fault rupture. No Impact related to surface fault rupture is anticipated, and no mitigation is required.

## Potential for Exposure to Seismic Groundshaking

Like the rest of the greater Bay Area and much of California, the City is subject to strong seismic groundshaking. However, the proposed projects would entail repairs to existing sanitary sewer infrastructure; they would not increase sewer capacity and thus would have no potential to indirectly increase populations in the project vicinity (see *Population & Housing* section of this checklist). As a result they would have no potential to additional people to seismic groundshaking hazards. Similarly, because the proposed projects would involve existing infrastructure, they would have no potential to expose new facilities to potential damage due to seismic groundshaking. There would be No Impact with regard to such exposure, and no mitigation is required.

## Potential for Exposure to Seismically Induced Ground Failure

All of the project Segments are within the Liquefaction Hazard Zone defined by the County of Santa Clara (2015). Segment 35 is also within a Liquefaction Hazard Zone defined by the State of California (California Geological Survey 2004). The proposed projects are therefore considered subject to significant liquefaction risk. However, because the projects would not involve housing construction and would have no potential to increase population in the project areas, they would have no direct or indirect potential to expose additional people to risks associated with liquefaction hazards. As identified in the previous item, the proposed projects would involve only existing infrastructure and therefore would not expose new facilities to potential damage due to liquefaction. There would be No Impact related to increased exposure of people or facilities to liquefaction hazards, and no mitigation is required.

## Potential for Exposure to Landslide Hazards

None of the project Segments is within a Seismically Induced Landslide defined by the State of California (California Geological Survey 2004) or the Landslide Zone defined by the County of Santa Clara (County of Santa Clara 2015). Moreover, all of the Segments are located on nearly flat topography at substantial distances from the rangefronts bounding the Santa Clara Valley. As a result, they are not considered to be at risk from

seismically induced landslides or from landslides in general. No Impact related to landslides is anticipated, and no mitigation is required.

## Potential for Soil Erosion or Loss of Topsoil

The proposed projects would not entail or require ground disturbance over the long term. Discussion under this item therefore focuses on potential impacts associated with the proposed repair activities.

CIPP lining and infiltration grouting do not require excavation, grading, or other ground disturbance. With these repair techniques, all work is accomplished from within the existing sewer pipe, with entry via existing manholes. Consequently, there would be No Impact with regard to soil erosion or loss of topsoil as a result of CIPP lining or infiltration grouting.

Minor excavation would be required at the east end of Segment 30, where SSMH 62-40 would be removed in its entirety and replaced. Minor excavation could also be required at the east end of Segment 35, where rehabilitation of SSMH 114-4 would include replacement of the manhole frame and modifications to the manhole base and channels. At both of these locations, there would be some potential for local acceleration of soil erosion due to ground disturbance. However, the extent of disturbance would be very small and the duration of work would be short (a few days at each site). Additionally the City's Standard Specifications for Public Works Construction require contractors to implement site-appropriate erosion control measures during ground-disturbing activities. As a result, the potential for soil erosion would be limited. Soil erosion impacts at Segments 30 and 35 are expected to be Less than Significant, and no mitigation is required.

Segment 30 is located in a developed area that has been graded for construction of the existing parking lot at 1390 Kifer Road. Because of prior grading, this site is not expected to preserve intact topsoil, and No Impact with regard to topsoil loss is anticipated at Segment 30. No mitigation is required.

The east end of Segment 35, which is located adjacent to the outboard toe of the east Guadalupe River levee has likely also been disturbed by installation of the existing manhole and levee construction, and possibly also by prior agricultural activity. This site is therefore also considered unlikely to preserve an intact, undisturbed topsoil layer, although some topsoil is presumed to be present, since the area is vegetated. However, the extent of topsoil loss would be very limited since the excavation footprint would be limited to the immediate vicinity of the manhole. Because of this site's history of prior disturbance and the small size of the excavation footprint here, the potential for topsoil loss is minor. Impacts, if any, with regard to topsoil loss at Segment 35 are considered Less than Significant, and no mitigation is required.

## Potential for Location on Unstable Substrate Materials

Issues related to liquefaction and slope stability are discussed in previous items, above. This discussion focuses on compressible soil hazards and the potential for unstable excavation cuts.

Compressible soils are clay and/or organic material–rich soils that are prone to compaction or subsidence when a load is applied, such as fill placed to create a building pad, or the weight of a newly constructed building. Compressible soils can be problematic since they may necessitate remedial measures or specialized foundation designs.

Segment 35 is located within the Compressible Soils Hazard Zone defined by the County (County of Santa Clara 2015). Rehabilitation of SSMH 114-4 could encounter challenges associated with compressible soils. However, since the existing manhole has been in place for several decades, soils supporting the manhole can be assumed to have undergone some degree of compaction in response to the weight of the manhole and

adjacent sewer pipe, if they are compressible. Moreover, rehabilitation at this location would entail partial replacement rather than a new installation and is not expected to increase the load on substrate materials substantially, if at all. As a result, impacts associated with compressible soils at Segment 35 are expected to be Less than Significant, and no mitigation is required.

The remaining project Segments (23, 29 – 31, and 12) are not within the Compressible Soils Hazard Zone defined by the County (County of Santa Clara 2015). No Impact with regard to compressible soils is anticipated at these Segments, and no mitigation is required.

As described in the previous item, minor excavation would be required for manhole rehabilitation at the east end of Segment 30 and the east end of Segment 35. Any excavation carries some risk of instability, but risks would be effectively minimized by adherence to building codes (in this case, the 2016 California Building Code, which is the City's adopted code) and requirements of the City's Standard Specifications for Public Works Construction. The potential for the project to create unstable conditions is therefore considered Less than Significant, and no mitigation is required.

## Potential for Location on Expansive Soils

Table 3-7 provides an overview of soils mapped by the Natural Resources Conservation Service at each of the Segments.

**Table 3-7. Overview of Soils by Segment**

| Segment | Soils | Characteristics | Expansive? |
|---|---|---|---|
| 23 | Urbanland – Campbell complex, 0 – 2% slopes, protected | Moderately well drained silt loam overlying silty clay loam and deeper silty clay soils; urbanized areas | Clay loam and silty clay soils may be expansive due to clay content |
| 29 – 31 | Urban land, 0 – 2% slopes, basins | Disturbed and artificially placed (fill) soils of flat-lying and gently sloping urbanized areas | Where engineered fill is present, no |
| 35 | Novato clay, 0 – 1% slopes, tidally flooded (Guad channel/levees) | Very poorly drained saturated clay soils of marshland areas | Potentially, due to high clay content |
| | Novato clay, 0 – 1% slopes, protected | | |
| | Urbanland – Campbell complex, 0 – 2% slopes, protected | Moderately well drained silt loam overlying silty clay loam and deeper silty clay soils; urbanized areas | Clay loam and silty clay soils may be expansive due to clay content |
| 12 | Urban land, 0 – 2% slopes, alluvial fans | Disturbed and artificially placed (fill) soils of flat-lying and gently sloping urbanized areas | Where engineered fill is present, no |

*Sources: Natural Resources Conservation Service 2017*

As shown in Table 3-7, some of the project Segments are located on soil units that have the potential to be expansive. However, the projects entail repairs to existing infrastructure; no new structures or facilities would be added, so the repairs would not increase the exposure of infrastructure to potential damage associated with expansive soil conditions. Moreover, by restoring the integrity of the project Segments, the proposed repairs, if anything, would reduce the potential for expansive soils (if present) to affect sanitary sewer components. There would be No Impact, and no mitigation is required.

## Potential for Impacts Related to Septic Tanks/Alternative Wastewater Disposal Systems

The proposed projects focus exclusively on repairs to sewer infrastructure and would involve existing facilities only. No septic facilities or alternative wastewater disposal systems would be constructed. There would be No Impact related to septic tanks or alternative wastewater disposal systems, and no mitigation is required.

## Potential for Destruction of Paleontological Resources or Geological Features

### Significant Paleontological Resources

Paleontological (fossil) resources include preserved remains of past plants and animals as well as animal burrows, traces, tracks, and trackways. They are protected under federal and state regulations, including CEQA, because of their heritage value and their potential to provide scientifically important information.

Fossil materials may be buried in sediment or rock units below the ground surface, such that their presence or absence cannot be determined with certainty in advance of project groundbreaking. As a result, evaluating the potential for impacts on paleontological resources is essentially a risk analysis that asks and answers 2 questions:

- What is the likelihood that scientifically important (significant) paleontological resources[11] are present in the project area? and
- If present, would such resources be disturbed, damaged, or destroyed as a result of project activities?

The likelihood that significant fossil resources are present is based on the documented "track record" of the geologic units in the project area with regard to fossil finds. Units that have produced important fossil finds in the past are considered likely to contain additional materials and are considered sensitive for paleontological resources. The potential for loss of paleontological resources is directly related to the extent of project-related ground disturbance, and particularly ground disturbance involving previously undisturbed substrate materials.

The proposed projects would not entail or require ground disturbance over the long term. Discussion under this item therefore focuses on potential impacts associated with the proposed repair activities.

As discussed in *Potential for Soil Erosion or Loss of Topsoil* above, repairs at Segments 23, 29, 31, and 12 would not require ground disturbance and thus would have no potential to result in disturbance, damage, or loss to paleontological resources. There would be No Impact with regard to destruction of significant paleontological resources at these Segments and no mitigation is required.

Minor excavation would be required at the east end of Segment 30, where SSMH 62-40 would be removed and replaced, at the east end of Segment 35, where rehabilitation of SSMH 114-4 would include replacement of the manhole frame and modifications to the manhole base and channels, and at Segment 23 to reconnect existing sewer laterals with the main in Saratoga Avenue.

Mapping by the U.S. Geological Survey shows Segment 23 as situated on alluvial fan deposits of Holocene age (less than about 11,000 years old), Segment 30 as situated on basin deposits of Holocene age, and Segment

[11] The Society of Vertebrate Paleontology (SVP) defines *significant paleontological resources* as including "fossils and fossiliferous deposits… consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information." The SVP limits the definition of *paleontological resources* to materials more than about 5,000 years old (Society of Vertebrate Paleontology Impact Mitigation Guidelines Revision Committee 2010). The SVP's approach to paleontological resources evaluation, impact analysis, and mitigation was specifically developed to assist lead agencies in complying with CEQA protections for paleontological resources and is adopted here.

35 as situated on natural levee deposits of Holocene age. The alluvial fan deposits consist of gravelly sand and sandy or clayey gravel. They record erosional dissection of adjacent highlands and are typically coarser-grained closer to the rangefront. The natural levee deposits typically comprise varying proportions of silt and clay and were deposited adjacent ot streams as a result of flood events along the streams of the South Bay region. The basin deposits consist of dark-colored clay and silty clay rich in organic material, deposited in flood plain/valley floor settings outboard of the natural levees (Wentworth et al. 1999).

The University of California Museum of Paleontology's online collections database shows no holdings from the Holocene of Santa Clara County (University of California Museum of Paleontology 2018), and Holocene materials in general are not considered highly sensitive for paleontological resources. The 2005 discovery of Columbian mammoth (*Mammuthus columbi*) remains in Holocene-mapped strata along the SCVWD's Guadalupe River right-of-way in San José (University of California Museum of Paleontology 2005) indicates that Holocene-mapped materials in the Santa Clara Valley area may have previously unrecognized potential to contain significant fossil materials. An extra degree of caution is therefore likely to be warranted when dealing with Holocene-mapped materials in the Santa Clara Valley area, and particularly in the northern portion of the Valley, in proximity to the site of the 2005 mammoth find.

Surface-exposed Holocene strata in the vicinity of both Segments are presumed based on well documented regional geologic relationships to be underlain at depth by older units of Pleistocene age. Pleistocene strata throughout California are treated as paleontologically sensitive because they have produced a wealth of significant fossil finds.

At Segment 23, reconnection of existing sewer laterals to the main in Saratoga Avenue would require excavation to a depth of about 7 – 8 feet. Removal and replacement of Manhole 62-40 at Segment 30 would require excavation to a depth of about 15 feet. Rehabilitation of Manhole 114-4 at Segment 35 would require excavation to a depth of about 17 feet. At all of these locations, some of the material involved in the excavations would be previously disturbed as a result of sewer construction and manhole installation. However, there may also be potential to encounter undisturbed substrate materials, particularly at the base of the excavation and if the excavation needs to be widened beyond the original footprint involved in installation. Excavation within previously undisturbed materials may have some potential to encounter, damage, or destroy significant fossil resources. It is difficult to assess the level of risk precisely, and extensive loss is considered unlikely, but there could be some potential for impacts at their potential worst to rise to a level considered Significant under CEQA. To avoid Significant impacts, the City will implement the following mitigation measures during work at Segments 23, 30, and 35. With these measures incorporated, impacts related to potential disturbance and destruction of significant paleontological resources would be Less than Significant.

**Mitigation Measure Geo-1. Worker Awareness Training for Paleontological Resources**

Prior to groundbreaking at Segments 23, 30, and 35, the City will retain qualified staff to develop and present in-person, hands-on worker awareness training for paleontological resources. As used here, *qualified staff* refers to an individual who satisfies one or both of the following criteria.

- A Principal Paleontologist as defined by the California Department of Transportation (2012) Caltrans (2012), or a qualified professional paleontologist as defined by the Society of Vertebrate Paleontology (Society of Vertebrate paleontology Impact Mitigation Guidelines Revision Committee 2010), who is experienced in delivering training to nonspecialists
- A California-licensed professional geologist (PG) who has expertise in South San Francisco Bay Area stratigraphy and paleontology and is experienced in delivering training to

nonspecialists

Training will be concise and substantive. It will include information on the possibility of encountering fossils during construction; the types of fossils that may be seen and how to recognize them; and proper procedures in the event fossils are encountered. All field management and supervisory personnel and construction workers involved with ground-disturbing activities will be required to take this training prior to beginning work on the project. Upon completion of the training, workers will be required to sign a form stating that they attended the training, understand, and will comply with the information presented.

**Mitigation Measure Geo-2. Stop-Work, Evaluation, and Treatment in the Event of a Paleontological Find**

If vertebrate remains or other potentially significant fossil resources are discovered during project-related activities, all work in the immediate vicinity of the discovery will cease, the find will be protected in place, and the contractor will be required to notify the City before the end of the work day. The City will detail qualified staff—i.e., staff meeting the qualifications for a Principal Paleontologist as defined by the California Department of Transportation (2017), or a Qualified Professional Paleontologist as defined by the Society of Vertebrate Paleontology (Society of Vertebrate Paleontology Impact Mitigation Guidelines Revision Committee 2010)—to evaluate the find and recommend appropriate follow-up treatment. Work may continue on other parts of the alignment while evaluation (and, if needed, treatment) takes place, as long as the find can be adequately protected in the judgment of the qualified staff. The City will be responsible for ensuring that the recommendations of the qualified staff regarding treatment and reporting are implemented.

Unique Geological Features

All of the project Segments are located in urbanized areas. No unique geological features are present at or in close proximity to the project Segments or in the immediately surrounding vicinities. There would be No Impact on unique geological features, and no mitigation is required.

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| **VIII. GREENHOUSE GAS EMISSIONS**<br><br>*Would the project:* | **Potentially Significant Impact** | **Less Than Significant with Mitigation Incorporated** | **Less Than Significant Impact** | **No Impact** |
|---|---|---|---|---|
| (a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | ☐ | ☐ | ■ | ☐ |
| (b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | ☐ | ☐ | ☐ | ■ |

## Discussion of Checklist Responses

Based on extensive technical studies, the Intergovernmental Panel on Climate Change (IPCC) has concluded that

> [w]arming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millenia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, sea level has risen, and the concentrations of greenhouse gases have increased….It is *extremely likely* [95-100% probability] that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in greenhouse gas concentrations and other anthropogenic forcings together (Intergovernmental Panel on Climate Change 2013).

Water vapor is the most significant heat-trapping gas, but its concentrations fluctuate depending on temperature, and water vapor does not accumulate in the atmosphere like the well-mixed long-lived GHGs. The GHG with the largest heat-trapping impacts is carbon dioxide ($CO_2$), followed by methane ($CH_4$) and nitrous oxide ($N_2O$). Certain fluorinated compounds are also tracked as GHGs.

To account for the combined impact of GHGs, emissions of each of these GHGs are expressed in terms of "$CO_2$ equivalents" ($CO_2e$) by multiplying by a global warming potential (GWP), and then summed. By definition, $CO_2$

has a GWP of 1. GWPs for the other gases have been developed over time; for example, California's GHG emission inventory (California Air Resources Board 2019) uses 100-year time horizon GWPs identified in the IPCC's 4th Assessment Report, which are 25 for $CH_4$ and 298 for $N_2O$ (Forster et al. 2007).

In California, GHG emissions decreased from 2000 to 2016 (California Air Resources Board 2019). However, while climate change will affect some localities differently than others, the environmental impact in any location is primarily a function of global rather than local GHG levels, and global GHG concentrations have been consistently increasing for several decades (Hartmann et al. 2013).

## Potential to Generate Greenhouse Gas Emissions

All fuel-burning equipment generates GHG emissions. However, even for projects much larger than the proposed repairs, construction activities are temporary rather than permanent, and the BAAQMD has only set significance criteria for GHG emissions from permanent source operations (Bay Area Air Quality Management District 2017a). That said, BAAQMD's criteria for permanent source GHG emissions provide a context to evaluate GHG emissions associated with the proposed repair activities.

As detailed in Appendix A, the total GHG emissions associated with the proposed projects were modeled using worst-case assumptions (diesel fuel, no alternatively fueled equipment) and shown to be 138 metric tonnes of $CO_2e$. Even assuming that all the repairs take place within a single year, which is extremely unlikely, this is substantially below the significance threshold of 10,000 metric tonnes of $CO_2e$ per year that BAAQMD has identified for permanent source operations. With the projects spread out over the next several years, as the City anticipates, total GHG emissions per year would be even farther below the 10,000 metric tonnes of $CO_2e$ per year threshold. Impacts related to GHG emissions are therefore considered Less than Significant, and no mitigation is required.

## Potential to Conflict with a Greenhouse Gas Emissions Reduction Plan, Policy, or Regulation

Several GHG emissions reduction plans, policies, and regulations have been developed at the federal, state, air district, and local levels. The most recent include CARB's 2017 Climate Change Scoping Plan (California Air Resources Board 2017), BAAQMD's current Clean Air Plan (Bay Area Air Quality Management District 2017b), and the City's Climate Action Plan (City of Santa Clara 2013).

The BAAQMD's Clean Air Plan, titled *Spare the Air – Cool the Climate, a Blueprint for Clean Air and Climate Protection in the Bay Area* (Bay Area Air Quality Management District 2017b), addresses both criteria pollutant and GHG emissions. However, it does not regulate construction or similar activities conducted as maintenance and as such is not directly applicable to the proposed project.

The City's Climate Action Plan provides a combination of incentives, educational outreach, and regulations applicable to new and existing development. Of these, the most relevant to the proposed projects are the following.

- Measure 4.2: Increased waste diversion from landfills. Landfills generate methane. The City Code (8.25.285) currently requires projects involving construction, demolition, or renovation of 5,000 square feet or more to reduce landfilling of construction waste by recycling or diverting at least 50% of materials generated for discard by the project, or to pay a penalty. Measure 4.2 recommends updating the City Code to apply to a wider range of projects
- Measure 5.2: Alternative construction fuels. As identified above, all fuel combustion—including that used to generate electricity for supply to the power grid—generates GHG emissions. However, some

fuels generate less than others and/or are credited for being derived from crops that sequester carbon. Measure 5.2 identifies a long-term goal of replacing 30% of conventional diesel-fueled construction equipment used in the City with hybrid, compressed natural gas, electric, or biodiesel equipment, and proposes incentivizing the owners of construction equipment rather than contracting entities

These measures are not mandatory for City projects, but the City does encourage waste diversion and the use of alternative construction fuels. This will be reflected in the project construction documents. As a result, there would be No Impact related to conflict with an applicable plan, policy, or regulation for the reduction of GHG emissions. No mitigation is required.

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| **IX. HAZARDS & HAZARDOUS MATERIALS**<br><br>*Would the project:* | **Potentially Significant Impact** | **Less Than Significant with Mitigation Incorporated** | **Less Than Significant Impact** | **No Impact** |
|---|---|---|---|---|
| (a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | ☐ | ☐ | ■ (construction) | ■ (long-term Benefit ) |
| (b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | ☐ | ☐ | ■ (construction) | ■ (long-term Benefit ) |
| (c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school? | ☐ | ☐ | ☐ | ■ |
| (d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | ☐ | ☐ | ■ (Segments 23, 29 – 31) | ■ (Segments 12 and 35) |
| (e) 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 or public use airport, would the project result in a safety hazard for people residing or working in the project area? | ☐ | ☐ | ☐ | ■ |
| (f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ☐ | ■ |
| (g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? | ☐ | ☐ | ☐ | ■ |

## Discussion of Checklist Responses

### Potential to Create Hazards Related to Transport, Use, or Disposal of Hazardous Materials

Repair work at all of the Segments would require the use of substances that qualify as hazardous materials as defined by the State of California (e.g., Health and Safety Code Section 25117), including vehicle and equipment fuels and lubricants as well as the limited quantities of paving media required to restore the parking lot adjacent to the replaced manhole at Segment 30. All such substances would be handled and disposed in strict accordance with good construction practices, applicable federal and state regulations, and the City's Standard Specifications for Public Works Construction. In addition, for the Segments that require work in proximity to watercourses (Segments 29 – 31, 35, and 12), the City has committed to implementing a suite of Avoidance and Minimization Measures to protect water quality. With adherence to the City's Standard Specifications, good construction practices, and the added precautions for work near watercourses, impacts related to hazardous materials use and handling during construction are expected to be Less than Significant. No mitigation is required.

Once the repairs at each Segment have been completed, normal operations and maintenance would resume. Consequently, there would be no long-term increase in the use of substances that qualify as hazardous materials and No Impact related to increased hazard to the public or the environment due to routine transport, use, or disposal of hazardous materials. Rather, because the proposed repairs would decrease the need for ongoing maintenance by restoring the integrity of the project Segments, there would likely be a long-term Benefit with regard to the use and disposal of hazardous substances. No mitigation is required.

### Potential to Create Hazards Related to Hazardous Materials Releases

As discussed in the previous item, the proposed repairs would require the use of some hazardous substances—such as fuels, lubricants, and paving media—but all such substances would be handled according to good construction practices, applicable state regulations, the City's Standard Specifications, and the additional precautions (Avoidance and Minimization Measures) the City will require for work near watercourses, which include spill prevention and response measures. With these precautions in place, impacts, if any, related to hazardous materials spills or releases during construction are expected to be Less than Significant. No mitigation is required.

Once the repairs at each Segment have been completed, normal operations and maintenance would resume, as discussed in the previous item. There would be no long-term increase in the use of substances that qualify as hazardous materials as a result of the proposed projects, and—as discussed above—would likely be a decrease due to the decreased need for maintenance of the project Segments. Consequently, there would be No Impact related to increased hazard to the public or the environment due to potential hzardous materials spills or releases and would likely be a long-term Benefit. No mitigation is required.

### Potential for Handling or Emission of Hazardous Substances or Waste within 0.25 Mile of a School

No public or private elementary, middle, or high schools are located within 0.25 mile of any of the project Segments, and no daycare or preschool facilities have been identified within 0.25 mile of any of the Segments. The closest facility is Little Star Home Family Daycare, located at 2417 South Park Lane, about 0.27 mile south-southwest of Segment 12. There would be No Impact related to emissions or handling of hazardous materials, substances, or waste within 0.25 mile of an existing school, and no mitigation is required.

## Potential to Create Hazards Related to Location on a Listed Hazardous Materials Site

As part of the initial environmental screening conducted for all of the 70 repairs proposed under the Sanitary Sewer Condition Assessment Repairs Program, the City screened for location on sites listed for hazardous materials contamination. Resources consulted included the State Water Resources Control Board's GeoTracker online database (State Water Resources Control Board 2015) and the Department of Toxic Substances Control's EnviroStor online database (Department of Toxic Substances Control 2018). Repair segment locations were entered individually into the GeoTracker and EnviroStor mapping utilities, using a 1,000-foot search radius. The goal was to identify sites coinciding with repair Segments as well as nearby sites where contaminant migration might affect the site of a repair Segment.

Segments 35 and 12 are not located on sites listed for hazardous materials contamination (Redtail Consulting 2018). At Segments 35 and 12, there would be No Impact related to location on a listed contaminated site, and no mitigation is required.

Segment 29 is located within the parking lot at 1400 Kifer Road, an RWQCB Site Cleanup Program site currently shown as "Open – Inactive" by the state's Geotracker database, with a site case opened in 2015 (State Water Resources Control Board 2015). Segment 23 is located immediately adjacent to 220 Saratoga Avenue, the location of Classic Cleaners Pruneridge Shopping Center. This is also a Site Cleanup Program site; active clean-up activities here concluded more than a decade ago, but monitoring continues to be conducted to verify its efficacy. The paragraphs that follow discuss Segment 23 and Segments 29 – 31 in more detail.

### Segment 23

*Background.* The primary contaminant of concern at the Classic Cleaners Pruneridge Shopping Center site is tetrachloroethylene (PCE), a solvent used in dry cleaning. Other volatile organic compounds (VOCs)—breakdown products of PCE—have also been detected in soil, soil vapor, and groundwater at this site.

A Phase I Environmental Site Assessment conducted in 2000 noted a stained and cracked floor slab at the Classic Cleaners site as well as floor drains apparently discharging to the sanitary sewer system, and a follow-up Limited Phase II Subsurface Investigation identified PCE in site soils and groundwater. Results of a supplemental site investigation conducted in 2001 showed groundwater contamination extending about 30 feet eastward from the east wall of Classic Cleaners, beneath the adjacent businesses and toward Saratoga Avenue (Kleinfelder 2001). Maximum PCE concentrations reported from the site as of 2000 were 5,100 milligrams per kilogram (mg/kg) in soil and 1,100 micrograms per liter (µg/l) in groundwater (Kleinfelder 2000). For comparison, the RWQCB's current Tier 1 "appropriate for most sites" Environmental Screening Levels (ESLs)[12] for PCE are 0.08 mg/kg in soil and 0.64 µg/l in groundwater (San Francisco Bay Regional Water Quality Control Board 2019).

The highest contaminant concentrations were associated with the immediate location of the releases at and adjacent to Classic Cleaners. Analysis of soil samples showed contaminant levels decreasing rapidly with distance (Kleinfelder 2001), and all contaminants were at non-detect levels in soil borings advanced east of the building that houses Classic Cleaners (closer to Segment 23). The majority of the contaminated soil at the site was excavated and removed, although some soil exceeding ESLs was of necessity left in place, because

[12] The RWQCB establishes ESLs for more than 100 common contaminants as a tool for identification and prioritization of contaminated sites requiring remediation and provides guidance for their use (see www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/esl.html). The ESLs are intended to be protective of human health and the environment, representing the concentration threshold below which contaminants do not pose a significant threat to human health, water quality, or the environment.

removing it would have jeopardized the structural integrity of the building (San Francisco Bay Regional Water Quality Control Board 2007).

Groundwater contamination was addressed through bioremediation, including injection of nontoxic vegetable oil to encourage bacterial breakdown of contaminants and bioaugmentation with beneficial bacteria (Remediation Sciences 2011). A number of groundwater monitoring wells were established on the property during the site assessment and remediation process, as shown in Figure 3.

In 2007, the RWQCB judged that adequate active remediation had taken place and that further injection of groundwater amendments was not necessary since treatment had been sufficient to foster continued breakdown of contaminants for a period of years. However, contaminant levels were still high enough as of 2007 that the site was kept in "Open" status, with ongoing groundwater monitoring required (San Francisco Bay Regional Water Quality Control Board 2007). In 2011, following a second request for site closure, the RWQCB determined that although contaminant levels had continued to decline, they were still high enough to warrant ongoing monitoring, particularly as dry conditions had made it impossible to obtain samples from some of the monitoring wells (San Francisco Bay Regional Water Quality Control Board 2011).

In 2013, due to the success of remediation at lowering levels of PCE and its breakdown products in groundwater, an updated groundwater monitoring plan was approved by the RWQCB (PES Environmental 2013, San Francisco Bay Regional Water Quality Control Board 2013). Under the updated plan, monitoring was discontinued in several wells. This included MW-4—which is located at the northeast corner of the building and is thus the closest well to Segment 23—since no VOCs had been detected in samples from MW-4 when it was initially installed in 2001. As of 2013, monitoring was also discontinued or decreased in frequency at other wells around the site perimeter that showed substantially lowered contaminant concentrations. Monitoring now focuses on the wells closest to the original location of the release(s) at 220 Saratoga Avenue and those where sampling has been prevented due to drought conditions and a lowered water table (PES Environmental 2013, San Francisco Bay Regional Water Quality Control Board 2013) (see Figure 3). Following the approval of the updated groundwater monitoring plan, monitoring was expanded to include assessment of vapor intrusion into buildings on the site (PES Environmental 2017). Soil vapor sample locations are shown on Figure 3.

Table 3-8 shows the most recent available groundwater monitoring data for the Classic Cleaners site. Monitoring well locations are shown on Figure 3. For each monitoring well, Table 3-8 identifies the depth of the screened interval, which represents the depth from which samples were taken. Contaminant levels are compared to the RWQCB's ESLs (see footnote at bottom of page 3-55 and notes in Table 3-8). Based on initial site assessments and later groundwater monitoring, groundwater flows toward the east/northeast (Kleinfelder 2001, Remediation Sciences 2011).

**Table 3-8. 2018 Groundwater Monitoring Results, Classic Cleaners Pruneridge Shopping Center Site**

| Well | Screened Interval (feet below surface) | Contaminant Level (µg/l)[a] | | | | |
|---|---|---|---|---|---|---|
| | | PCE | TCE | Cis-1,2-DCE | Trans-1,2-DCE | Vinyl Chloride |
| **Shallow Groundwater Zone** | | | | | | |
| MW-1 | 10 – 25 | *Well could not be sampled (dry)* | | | | |
| MW-2 | 35.5 – 40.5 | *Well could not be sampled (dry)* | | | | |
| MW-3 | 3 – 18 | *Well could not be sampled (insufficient water column)* | | | | |
| MW-6 | 17 – 22 | *Well could not be sampled (dry)* | | | | |

| Well | Screened Interval (feet below surface) | Contaminant Level (µg/l)[a] | | | | |
|---|---|---|---|---|---|---|
| | | PCE | TCE | Cis-1,2-DCE | Trans-1,2-DCE | Vinyl Chloride |
| MW-8 | 17.5 – 22.5 | *Well could not be sampled (obstruction at 10.42 feet below ground surface)* | | | | |
| **Deeper Groundwater Zone** | | | | | | |
| MW-3D | 25.5 – 30.5 | ND (<0.50) | ND (<0.50) | 33 | 19 | ND (<0.50) |
| MW-5D | 25.5 – 30.5 | *Well could not be sampled (insufficient water column)* | | | | |
| MW-6D[b] | 33.5 – 38.5 | **13 / 15** | **74 / 79** | **200 / 220** | **35 / 36** | **8.2 / 9.5** |
| MW-8D | 33.5 – 38.5 | **120** | **40** | **290** | **38** | **9.0** |
| | **Tier 1 ESL:**[c] | 0.64 µg/l | 1.2 µg/l | 6.0 µg/l | 10 µg/l | 0.0086 µg/l |
| | **Tier 2 ESL:**[c] | 2.8 µg/l | 5.0 µg/l | 6.0 µg/l | 10 µg/l | 0.14 µg/l |

**Notes:**

[a] Exceedance of ESL shown in **bold face**

[b] Duplicate samples were taken; both values reported here

[c] Tier 1 ESLs are reflect conservative default assumptions about site conditions and are intended to be protective for sites with unrestricted land and water use, shallow soil contamination, shallow groundwater, and permeable soils allowing more rapid and unconstrained contaminant migration. The RWQCB (2016, 2019) provides an Excel worksheet to derive more refined, site-specific Tier 2 ESLs that more closely reflect parameters at a given site while still protecting human health and the environment (San Francisco Bay Water Quality Control Board 2016).

PCE = tetrachloroethylene
TCE = trichloroethylene
DCE = dichloroethylene
Cis-1,2-DCE = cis-1,2-dichloroethylene
Trans-1,2-DCE = trans-1,2-dichloroethylene
ND = non-detect (contaminant level below analytical detection threshold)
ESL = RWQCB Environmental Screening Level

*Source: PES Environmental 2018; San Francisco Bay Water Quality Control Board 2016, 2019*

Table 3-9 summarizes the results of soil vapor analysis conducted at the Classic Cleaners site in 2017, focusing on the contaminants of greatest concern; all other tested contaminants were at non-detect levels at all sampling points. Contaminant levels are given in micrograms per cubic meter (µg/m$^3$) and are compared to the RWQCB ESLs. ESLs were derived using the current ESL worksheet provided by the RWQCB (San Francisco Bay Regional Water Quality Control Board 2019). Sample locations are shown in Figure 3.

**Table 3-9. 2018 Soil Vapor Testing Results, Classic Cleaners Pruneridge Shopping Center Site**

| Sample Location | Contaminant Level (µg/m$^3$)[a] | | | | | |
|---|---|---|---|---|---|---|
| | PCE | TCE | 1,1-DCE | Cis-1,2-DCE | Trans-1,2-DCE | Vinyl Chloride |
| SV1 | **200** | ND | ND | ND | ND | ND |
| SV2 | **630** | ND | ND | ND | ND | ND |
| SV3[b] | ND | ND | ND | **3,300 / 3,300** | 220 / 310 | **310 / 360** |
| SV4 | ND | ND | ND | ND | ND | ND |
| SV5 | ND | ND | ND | ND | ND | ND |
| SV6 | ND | ND | ND | ND | ND | ND |
| SV7 | **300** | ND | ND | ND | ND | ND |
| SV8 | **1,400** | **1,200** | 360 | **120,000** | 4,300 | **1,200** |
| SV9 | ND | ND | ND | ND | ND | ND |

| Sample Location | Contaminant Level (µg/m³)[a] | | | | | |
|---|---|---|---|---|---|---|
| | PCE | TCE | 1,1-DCE | Cis-1,2-DCE | Trans-1,2-DCE | Vinyl Chloride |
| **Tier 1 ESL:**[c] | 15 µg/m³ | 16 µg/m³ | 2,400 µg/m³ | 280 µg/m³ | 280 µg/m³ | 0.32 µg/m³ |
| **Tier 2 ESL:**[c] | 67 µg/m³ | 100 µg/m³ | 10,000 µg/m³ | 1,200 µg/m³ | 12,000 µg/m³ | 5.2 µg/m³ |

**Notes:**

[a] Exceedance of ESL shown in **bold face**

[b] Duplicate samples were taken; both values reported here

[c] Tier 1 ESLs are derived based on conservative default assumptions about site conditions and are intended to be protective for sites with unrestricted land and water use, shallow soil contamination, shallow groundwater, and permeable soils allowing more rapid and unconstrained contaminant migration. The RWQCB (2016, 2019) provides an Excel worksheet to derive more refined, site-specific Tier 2 ESLs that more closely reflect parameters at a given site while still protecting human health and the environment (San Francisco Bay Water Quality Control Board 2016).

PCE = tetrachloroethylene
TCE = trichloroethylene
DCE = dichloroethylene
Cis-1,2-DCE = cis-1,2-dichloroethylene
Trans-1,2-DCE = trans-1,2-dichloroethylene

ND = non-detect (contaminant level below analytical detection threshold)
ESL = RWQCB Environmental Screening Level

*Sources: PES Environmental 2017; San Francisco Bay Water Quality Control Board 2016, 2019*

*Potential for Impacts.* CIPP lining and manhole rehabilitation at Segment 23 would have no potential to expose workers or the general public to elevated VOC levels, since no ground disturbance is required to accomplish these types of repairs. The only ground disturbance that would occur at Segment 23 would be minor excavation to reconnect the two existing sewer laterals to the rehabilitated main, as shown in Figure 2a. This excavation would be areally limited but would extend to a depth of about 10 feet below grade.

Three possible exposure pathways are associated with excavation to reconnect the laterals: exposure to contaminated soils, exposure to contaminated groundwater, and exposure to vapors. These are discussed separately below.

Contaminated Soils. Contaminated soils associated with releases from the Classic Cleaners site were excavated and removed from the site during the initial phases of site remediation, as described above. Moreover, elevated contaminant levels in soil were limited to the immediate vicinity of the releases; contaminants were at non-detect levels in all of the soil borings located east of the building housing Classic Cleaners, closer to Saratoga Avenue. Consequently, excavation at Segment 23 is considered unlikely to encounter significantly contaminated soils. However, the potential cannot be entirely ruled out based on the available information. As a result, the City has committed to implement Avoidance and Minimization Measures for hazardous materials contamination. As described in Section 2, these would include prohibiting public access to the vicinity of active repairs, requiring contractor employees working on site to be HASWOPER-certified, testing excavated materials to ensure appropriate handling and disposal, and prohibiting onsite reuse of contaminated soils, among other measures. With these requirements in place, potential impacts related to exposure to contaminated soils would be Less than Significant. No mitigation is required.

- Contaminated Groundwater. All of the shallow groundwater monitoring wells sampled in 2018 were dry to depths of substantially more than 10 feet. Long-term groundwater data from the monitoring wells—going back to the early 2000's—consistently show the water table at depths of more than 15 feet and in

most cases substantially deeper. Moreover, the groundwater monitoring well closest to Segment 23 (MW-4; see Figure 3) showed contaminants at non-detect levels in the years immediately following discovery of contamination at the Classic Cleaners site (Kleinfelder 2000, 2001), and in 2013, the RWQCB formally approved the discontinuation of monitoring at MW-4. Consequently, excavation is considered unlikely to encounter groundwater and very unlikely to encounter contaminated groundwater. In the event groundwater is encountered, additional protection would be provided by the adopted Avoidance and Minimization Measures for hazardous materials contamination, which—in addition to the worker and public protections discussed above—include prohibitions on discharging groundwater to the storm drain system and a requirement to test prior to discharge to sanitary sewer; if applicable limits are exceeded, groundwater extracted from excavations must either be treated onsite prior to discharge or removed from the site for appropriate disposal elsewhere. Impacts, if any associated with potential exposure to contaminated groundwater would be Less than Significant. No mitigation is required.

- Soil Vapor. All of the key contaminants were at non-detect levels at soil vapor sample points east of the Classic Cleaners building, along the Saratoga Avenue side of the property. Segment 23 itself is farther east of the point of release at Classic Cleaners and would be expected to show even lower potential for soil vapor contaminants in excess of appropriate screening levels. Impacts, if any, related to potential soil vapor exposure are expected to be Less than Significant, and no mitigation is required.

Segments 29 – 31

*Background.* 1400 Kifer Road is the location of the Prudential Insurance Company of America Site Cleanup Program site. Very little information is available on this site but documents available on the Geotracker database (State Water Resources Control Board 2015) imply that contamination was discovered in the late 1980s during the due diligence process for a prior purchase of the property and this has subsequently been confirmed by RWQCB staff (Barr 2019). Several nearby sites are also in various stages of assessment, remediation, or post-remediation monitoring, including 3340 Kifer Road/2921 and 2941 Corvin Drive (Kifer & Corvin site, Open – Site Assessment), 2964 Corvin Drive (Fulcran Properties site, Open – Inactive), 2970 Corvin Drive (ZEP Manufacturing Site, Open – Verification Monitoring), 2986 Oakmead Village Court (MicroStorage/Intel Magnetics site, Open – Remediation), and 3105 Kifer Road (Metropolitan Corporate Center site, Open – Verification Monitoring) (State Water Resources Control Board 2015).

Contaminants of potential concern at the Prudential Insurance Company of America site include the VOCs 1,1,1-trichloroethane (TCA), dichloroethane (DCA), and dichloroethene (DCE). The pesticides atrazine and simezine have also been documented here. To date, no formal site assessment or clean-up activities have taken place (State Water Resources Control Board 2015) and very little information is available. The preliminary environmental site assessment conducted by Geomatrix (now AMEC Geomatrix) found atrazine and simezine in groundwater at a depth of 12 feet below ground surface, DCA in groundwater at depths of 13 – 18 feet below ground surface, and DCE in groundwater at depths of 18 feet below ground surface (Geomatrix 1989). Table 3-10 summarizes the maximum contaminant concentrations detected on the site in the late 1980s, in comparison to the RWQCB's ESLs, discussed above. Although ESLs were exceeded at that time, contaminant levels were comparatively low, and RWQCB staff have indicated that the site is now being considered as a candidate for closure under the State Water Resources Control Board's low-threat closure policy (Barr 2019).[13]

[13] The Low-Threat Underground Storage Tank Case Closure Policy seeks to increase the efficiency of the site cleanup process and facilitate closure of sites that, while contaminated, do not pose a long-term threat to human health, the environment, or the waters of the state. Under

Although they have not been evaluated, because of their proximity to 1400 Kifer Road site and in an area with numerous other contaminated sites, there is some potential that Segments 30 and 31 may also be subject to some level of groundwater contamination; Segment 30 is immediately adjacent to 1400 Kifer Road at 1390 Kifer Road, and Segment 31 is just across Kifer Road at 350 Oakmead Parkway.

**Table 3-10. Maximum Groundwater Contaminant Levels – 1400 Kifer Road Site**

| Contaminant: | DCA | 1,1,1-TCA | DCE | Atrazine | Simezine |
|---|---|---|---|---|---|
| Maximum Concentration (µg/l):[a] | **20** | 2.8 | 0.52 | 4.2 | 1.2 |
| Tier 1 ESL:[b] | 1,1-DCA: 5.0 µg/l<br>1,2-DCA: 0.50 µg/l | **62 µg/l** | **cis-1,2-DCE: 60 µg/l**<br>**trans-1,2-DCE: 10 µg/l** | N/A | N/A |
| Tier 2 ESL:[b] | 1,1-DCA: 5.0 µg/l<br>1,2-DCA: 0.50 µg/l | **62 µg/l** | **cis-1,2-DCE: 60 µg/l**<br>**trans-1,2-DCE: 10 µg/l** | N/A | N/A |

**Notes:**

[a] Exceedance of ESL shown in **bold face**

[b] Tier 1 ESLs are derived based on conservative default assumptions about site conditions and are intended to be protective for sites with unrestricted land and water use, shallow soil contamination, shallow groundwater, and permeable soils allowing more rapid and unconstrained contaminant migration. The RWQCB (2016, 2019) provides an Excel worksheet to derive more refined, site-specific Tier 2 ESLs that more closely reflect parameters at a given site while still protecting human health and the environment (San Francisco Bay Water Quality Control Board 2016).

DCA = dichloroethane
TCA = 1,1,1-trichloroethane
DCE = dichloroethene
ESL = RWQCB Environmental Screening Level

*Source: Geomatrix 1989; San Francisco Bay Water Quality Control Board 2016, 2019*

*Potential for Impacts.* CIPP lining and spray-on liner manhole rehabilitation at Segments 29 – 31 would have no potential to expose workers or the general public to elevated contaminant levels, since no ground disturbance would be involved in these repairs. The only ground disturbance that would occur at these Segments would be for removal and replacement of Manhole 62-40 at the north end of Segment 30 (see Figure 2b).

Excavation to remove and replace Manhole 62-40 would be areally limited but would extend to a maximum depth of about 15 feet below grade and thus is considered to have some potential to encounter contaminated groundwater and/or soils. There would thus be some short-term potential to expose workers to contaminants in groundwater, site soils, and possibly also soil vapor. The public would not have access to the active work site and thus would not be exposed to contaminated soils or groundwater, but could be exposed to soil vapor. Because the duration of exposure would be quite short, and the contaminant levels are fairly low, the potential health risks are considered low. Nonetheless, the City considers any level of avoidable health risk a concern, and will require the contractor to implement protective measures for excavation at Segment 30, as described under *Avoidance and Minimization Measures* in Section 2. These include vapor control measures and air monitoring within the excavation and at the perimeter of the work site, with follow-up measures (including temporary suspension of work and use of additional vapor control) if applicable thresholds are exceeded. Excavated materials and groundwater will also be subject to special handling, as described in Section 2. With these measures in place, impacts related to location on a site listed for hazardous materials, and corollary risks

this policy, the RWQCB uses narrative (non-quantitative) criteria to assess site context and status, evaluate potential threat levels, and determine whether remediation is required or the site can be closed.

to worker and general public health and the environment would be Less than Significant. No mitigation is required.

## Potential for Hazards Related to Public and Public-Use Airports

Airport land use plans serve to coordinate local jurisdiction land use planning and airport operations to protect public welfare; goals of the San José International Airport (SJC) airport land use plan in particular include ensuring that "people and facilities are not concentrated in areas susceptible to aircraft accidents, and … that no structures … adversely affect navigable airspace" (Santa Clara County Airport Land Use Commission 2011). Airport land use plans typically define *Airport Environs* within which land use planning takes airport operations into account, and, closer to the runways, Airport Safety Zones, where stricter density and use limitations are applied, to minimize the number of persons potentially exposed to risks associated with aircraft accidents.

All of the project Segments except Segment 35 are outside the Airport Environs and Airport Safety Zones established in the SJC Comprehensive Land Use Plan. Segment 35 is located at the north margin of the SJC Airport Environs but is outside the Airport Safety Zones (Santa Clara County Airport Land Use Commission 2011). Project construction would thus have no potential to affect airfield operations or safety, and with all of the project Segments located outside the defined Airport Safety Zones, construction workers are not considered to be at elevated risk as a result of airport incidents.

Once construction is completed, routine operations and maintenance would resume. The project would not install new above-grade facilities and would likely decrease the level of maintenance activity at the project Segments, as discussed in previous items above. Moreover, as identified above, all project Segments are outside the SJC Airport Safety Zones. The proposed repairs would therefore have no potential to affect long-term safety or operations at SJC, nor would it result in long-term risks to City workers.

There would be No Impact related to safety hazards associated with public or public-use airports during the construction period or over the long term. No mitigation is required.

## Potential to Interfere with an Emergency Response or Evacuation Plan

The City's Standard Specifications for Public Works Projects prohibit contractors from impeding the use of roadways, walkways, and other facilities that convey vehicle and pedestrian traffic without providing for safe temporary detours approved by the City. To that end, contractors are required to develop a Traffic Control and Detour Plan that, among other provisions, identifies lane closures and no parking areas, if any; provides detours as necessary; and provides for ingress/egress to adjacent properties. With this requirement in place, the proposed repairs are not expected to impair implementation of or physically interfere with any adopted emergency response plan or emergency evacuation plan. Similar requirements govern operations- and maintenance activity by City workers. There would be No Impact during the construction period or over the long term, and no mitigation is required.

## Potential for Exposure to Wildland Fire Hazards

All of the project Segments are located in urbanized areas surrounded by developed land uses, except for Segment 35. Moreover, as discussed in the *Population & Housing* section of this checklist, the proposed repairs would not increase system capacity and thus would have no potential to foster additional development in wildland interface areas, potentially increased exposure to wildland fire hazards.

Segment 35 is arguably at the wildland-urban interface; although it is nestled between developed uses south of SR 237, a substantial extent of open space is present immediately north of SR 237 and west of North First

Street. However, like the other Segments, repairs at Segment 35 would address existing facilities already in service and would not increase system capacity. They would thus have no potential to foster additional development that could increase exposure to wildland fire hazards.

There would be No Impact related to the potential for elevated exposure to wildland fire hazards. No mitigation is required.

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| **X. HYDROLOGY & WATER QUALITY**<br><br>*Would the project:* | **Potentially Significant Impact** | **Less Than Significant with Mitigation Incorporated** | **Less Than Significant Impact** | **No Impact** |
|---|---|---|---|---|
| (a) Violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or groundwater quality? | ☐ | ☐ | ■ (construction) | ■ (long-term Benefit) |
| (b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management in the basin? | ☐ | ☐ | ☐ | ■ (long-term Benefit) |

| X. HYDROLOGY & WATER QUALITY<br><br>*Would the project:* | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| (c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: | | | | |
| (i) result in substantial erosion or siltation on- or offsite? | ☐ | ☐ | ■ (construction) | ■ (long term) |
| (ii) substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or offsite? | ☐ | ☐ | ☐ | ■ |
| (iii) create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | ☐ | ☐ | ☐ | ■ (long-term Benefit to pollutant sources) |
| (iv) impede or redirect flood flows? | ☐ | ☐ | ☐ | ■ |
| (d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | ☐ | ☐ | ☐ | ■ (Benefit at Segment 35; No Impact at other Segments) |
| (e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | ☐ | ☐ | ☐ | ■ (long-term Benefit for WQCP)[a] |

[a]WQCP = Water Quality Control Plan (Basin Plan)

## Discussion of Checklist Responses

### Potential to Degrade Water Quality

Violation of Water Quality Standards and Waste Discharge Requirements

Ground disturbance required for project construction would have some potential to degrade water quality through accelerated erosion and delivery of sediment to overland runoff and storm drains, and also as a result of accidental release or discharge of various pollutants such as vehicle and equipment fuels and lubricants, resins, grout, curing media, and paving and striping media. However, the City's Standard Specifications for Public Works Construction include required measures for water quality protection, and, as described under *Avoidance and Minimization Measures* in Section 2, additional measures will be required for work in the vicinity of watercourses at Segments 12, 29 – 31, and 35. With all of these requirement in place, the potential for the

proposed repairs to result in violation of water quality standards or waste discharge requirements is expected to be Less than Significant. No mitigation is required.

Once repairs are complete, routine operations and maintenance would resume, with a likely reduction in maintenance frequency due to the improved condition of the project Segments. There would be no potential to increase the risk of violating water quality standards or waste discharge requirements. Rather, by restoring the integrity and improving the function of the project Segments, the proposed repairs would reduce the need for maintenance and decrease the potential for sanitary sewer system leaks, spills, and overflows. There would be No Impact but instead a long-term Benefit in terms of decreased potential for violation of water quality standards and waste discharge requirements. No mitigation is required.

Other Substantial Degradation of Water Quality

As discussed in more detail above, ground disturbance during construction would have some potential to degrade water quality through accelerated erosion and delivery of sediment to overland runoff and storm drains. Accidental releases or discharges of pollutants such as vehicle and equipment fuels and lubricants, resins, grout, curing media, and paving and striping media are also possible during construction. However, the City's Standard Specifications require implementation of measures to control runoff and protect water quality, and as described under *Avoidance and Minimization Measures* in Section 2, additional measures will be required at Segments 12, 29 – 31, and 35 where repairs would take place near watercourses. With all of these controls in place, the overall potential for project construction to degrade water quality is considered Less than Significant. No mitigation is required.

Once repairs are complete, routine operations and maintenance would resume, likely at a reduced level. With no alteration in operations-related activities, there would be no potential to increase the potential for water quality degradation. Over the long term, there would be No Impact, and no mitigation is required.

As discussed in the previous item, once repairs are complete, routine operations and maintenance would resume, likely at a reduced level due to the improved condition of the project Segments. There would be no potential to increase the potential for water quality degradation; rather, the proposed repairs would reduce the need for maintenance and decrease the potential for sanitary sewer system leaks, spills, and overflows that could affect surface or groundwater quality. There would be No Impact but rather a long-term Benefit with regard to the potential for water quality degradation. No mitigation is required.

## Potential to Impede Sustainable Groundwater Management

The proposed repairs would not increase consumption of groundwater nor would they add new areas of impervious surface that could impede groundwater recharge. As a result, they would have no potential to impede or interfere with sustainable groundwater management in the Santa Clara Valley. There would be No Impact, and no mitigation is required.

## Potential to Alter Existing Drainage Patterns

Increased Erosion or Siltation

As discussed above, ground disturbance during construction would have some potential to accelerate localized soil erosion and offsite delivery of sediment, but the project would be required to implement erosion and sediment control measures per the City's Standard Specifications for Public Works Construction. With these measures in place the projects' potential to result in impacts related to increased erosion and siltation during construction would be Less than Significant. No mitigation is required.

The proposed repairs would involve existing facilities; most work would be confined to the interior of existing sanitary sewer pipelines, and no new above-grade facilities would be installed. As a result, the proposed projects would not modify existing site or regional drainage patterns. All surfaces disturbed for manhole rehabilitation would be restored in kind once the rehabilitation is completed: either repaved, or reseeded in an appropriate planting palette, per commitments described under *Avoidance and Minimization Measures* in Section 2 and in Mitigation Measure Bio-1 in the *Biological Resources* section of this checklist. Consequently, over the long term there would be No Impact with regard to modification of drainage patterns or increased erosion and siltation.

Increased Runoff Leading to Flooding

As described in the previous item, the proposed repairs would not modify existing drainage patterns at any of the project Segments, and no new areas of impervious surface would be created. The repairs thus have no potential to increase site runoff at any of the project Segments. There would be No Impact related to increased runoff or exacerbation of flood hazards on- or offsite. No mitigation is required.

Exceedance of Stormwater Drainage Capacity

As described in the previous items, the proposed repairs would not modify existing drainage patterns nor would they entail creation of any new areas of impervious surface. As a result, stormwater runoff would not increase at any of the project Segments, and there would be no potential for the repairs to create or contribute to exceedance of stormwater drainage capacity. No mitigation is required.

New Sources of Polluted Runoff

The proposed repairs would not create new areas of impervious surface, and therefore would not increase runoff at any of the project Segments. Once the repairs are completed, the City's routine operations and maintenance program would resume, with a likely decrease in maintenance frequency due to the improved condition of the project Segments; there would thus be no increase in the potential for pollutant releases or spills. Rather, by restoring the integrity of existing sanitary sewer infrastructure, the project would result in a long-term benefit by reducing the potential for sewer system leaks, spills, and overflows. There would be No Impact but instead a long-term Benefit with regard to generation of polluted runoff. No mitigation is required.

Impedance or Redirection of Floodflows

No new above-grade facilities would be installed at any of the project Segments. The proposed repairs would thus have no potential to result in impedance or redirection of floodflows. There would be No Impact, and no mitigation is required.

## Potential for Release of Pollutants Due to Flood, Tsunami, or Seiche Inundation

Because of their locations on nearly flat topography at a substantial distance from the rangefronts bordering the Santa Clara Valley, the project Segments are not considered at risk from mudflows. No Impact is anticipated with regard to increased potential for pollutant releases due to mudflow inundation. No mitigation is required.

All of the project Segments are outside the area of potential tsunami inundation as delineated by the California Geological Survey (2009a, 2009b). They are therefore not considered subject to tsunami hazards. No Impact is anticipated with regard to increased potential for pollutant releases due to tsunami inundation, and no mitigation is required.

The California Geological Survey does not publish seiche hazard maps, but the Environmental Impact Report prepared for the City's current General Plan (City of Santa Clara 2011) identifies the potential for localized seiche hazards associated with enclosed water bodies such as ponds and reservoirs within the City.

Segments 23, 29 – 31, and 12 are all located at substantial distances from enclosed water bodies and are not considered subject to seiche hazards. No Impact is anticipated at these Segments with regard to increased potential for pollutant releases due to seiche inundation. No mitigation is required.

Segment 35 is located adjacent to the City's Eastside Retention Basin, which has been identified as potentially subject to seiche (City of Santa Clara 2011), and a seiche event in the Eastside Retention Basin could affect the area traversed by Segment 35. However, as noted in previous items, the proposed repairs at Segment 35 would not add new above-grade facilities, and they would substantially improve the integrity of existing sewer infrastructure at this location. Consequently, there would be No Impact with regard to increased potential for pollutant releases due to seiche inundation. If anything, by improving sewer pipeline and manhole integrity, repairs at Segment 35 would decrease the likelihood of damage resulting in sewage releases as a result of seiche inundation. This would represent a Beneficial Impact. No mitigation is required.

## Potential to Conflict with or Obstruct a Water Quality Control or Groundwater Management Plan

### Water Quality Control Plan

The RWQCB oversees water quality in the project region, pursuant to California's Porter-Cologne Water Quality Control Act and the federal Clean Water Act. The guiding document is the San Francisco Bay Basin Water Quality Control Plan (Basin Plan) (San Francisco Bay Regional Water Quality Control Board 2017).

As discussed above, ground disturbance during construction would have some potential to degrade water quality through accelerated erosion and delivery of sediment to overland runoff and storm drains. Accidental releases or discharges of pollutants such as vehicle and equipment fuels and lubricants, resins, grout, curing media, and paving and striping media are also possible during construction. However, the City's Standard Specifications require implementation of measures to control runoff and protect water quality, and as described under *Avoidance and Minimization Measures* in Section 2, additional measures will be required at Segments 12 and 35 where repairs would take place near watercourses. The proposed repairs therefore would not conflict with or obstruct implementation of the Basin Plan during construction. There would be No Impact during construction,and no mitigation is required.

Once repairs are complete, routine operations and maintenance would resume, with a likely decrease in maintenance frequency due to the improved condition of the project Segments. With no increase in operations- and maintenance-related activities, there would be no potential to increase the risk of water quality degradation. On the contrary, the proposed repairs would reduce the potential for sanitary sewer system leaks, spills, and overflows. This is consistent with and supportive of Basin Plan goals. Over the long term, there would be No Impact but instead a Benefit with regard to implementation of the Basin Plan. No mitigation is required.

### Groundwater Management Plan

The Santa Clara Valley Water District manages groundwater in the project region under their current Groundwater Management Plan (Santa Clara Valley Water District 2016). However, as identified above, the proposed repairs would not increase consumption of groundwater nor would they add new areas of impervious surface that could impede groundwater recharge. As a result, they would have no potential to conflict with or impede implementation of the District's Groundwater Management Plan. There would be No Impact, and no mitigation is required.

## References Cited in this Section

California Geological Survey. 2009a. Tsunami Inundation Map for Emergency Planning, State of California, County of Santa Clara, Milpitas Quadrangle. Scale 1:24,000. Available: https://www.conservation.ca.gov/cgs/geohazards/tsunami/maps. Downloaded: January 2019.

California Geological Survey. 2009b. Tsunami Inundation Map for Emergency Planning, State of California, County of Santa Clara, Mountain View Quadrangle. Scale 1:24,000. Available: https://www.conservation.ca.gov/cgs/geohazards/tsunami/maps. Downloaded: January 2019.

City of Santa Clara. 2011. Integrated Final Environmental Impact Report, City of Santa Clara Draft 2010 – 2035 General Plan. Available: http://santaclaraca.gov/government/departments/community-development/planning-division/general-plan. Downloaded: October 2018.

San Francisco Bay Regional Water Quality Control Board. 2017. San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan). Available: https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html. Accessed: January 2019.

Santa Valley Water District. 2016. Groundwater Management Plan. Available: https://s3.us-west-2.amazonaws.com/assets.valleywater.org/2016%20Groundwater%20Management%20Plan.pdf. Downloaded: January 2019.

| **XI. LAND USE & PLANNING**<br><br>*Would the project:* | **Potentially Significant Impact** | **Less Than Significant with Mitigation Incorporated** | **Less Than Significant Impact** | **No Impact** |
|---|---|---|---|---|
| (a) Physically divide an established community? | ☐ | ☐ | ☐ | ■ |
| (b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? | ☐ | ☐ | ☐ | ■ |

## Discussion of Checklist Responses

### Potential to Physically Divide an Established Community

The proposed projects would involve repairs to existing sanitary sewer infrastructure, including sewer pipes and manholes. No new above-grade appurtenances of any kind would be constructed. As such, the projects have no potential to create physical barriers or separations that could divide the communities surrounding the project Segments. There would be No Impact related to division of an existing community, and no mitigation is required.

### Potential to Conflict with Land Use Plans, Policies, or Regulations Adopted to Reduce Environmental Impacts

Land use planning in Santa Clara is primarily by the City's current General Plan (City of Santa Clara 2014) and various specific plans, and is regulated through the Zoning Ordinance and building permit process. The

proposed projects would entail needed repairs to sanitary sewer infrastructure that serves existing development. As such, they are considered consistent with the City's prevailing land use plans and the Zoning Ordinance.

Other relevant land use planning documents include the Comprehensive Land Use Plan for Norman Y. Mineta San José International Airport (Santa Clara County Airport Land Use Commission 2011) and the Santa Clara Valley Habitat Plan (County of Santa Clara et al. 2012). As discussed in the *Hazards & Hazardous Materials* section of this checklist, all of the project Segments except Segment 35 are outside the Airport Environs established in the SJC Comprehensive Land Use Plan. Segment 35 is located at the north margin of the SJC Airport Environs (Santa Clara County Airport Land Use Commission 2011). However, the proposed work would involve repairs to existing sanitary sewer infrastructure and would have no potential to independently modify the City's existing or planned land use mosaic; changes in land use planning require amendment(s) to the governing plan document(s). Additionally, since the work proposed at Segment 35 would involve repairs to existing sewer infrastructure, and no new above-grade facilities or appurtenances of any kind would be constructed, there would be no potential for effects on navigable airspace. In consideration of these factors, the proposed work at Segment 35 is considered consistent with the SJC Comprehensive Land Use Plan.

As identified in the *Biological Resources* section of this checklist, the City is not a signatory to the Santa Clara Valley Habitat Plan (County of Santa Clara et al. 2012) , and the City is therefore outside the area covered by the Plan. There is no adopted habitat conservation plan or natural community conservation plan covering the proposed project area, and no potential for conflict with conservation plans.

There would be No Impact related to conflict with any land use plan, policy, or regulation adopted to reduce environmental impacts. No mitigation is required.

## References Cited in this Section

City of Santa Clara. 2014. Celebrating Our Past, Present and Future: City of Santa Clara 2010 – 2035 General Plan. Last updated December 2014. Available: http://santaclaraca.gov/government/departments/community-development/planning-division/general-plan. Downloaded: January 2019.

County of Santa Clara, City of San Jose, City of Morgan Hill, City of Gilroy, Santa Clara Valley Water District, and Santa Clara Valley Transportation Authority. 2012. Final Santa Clara Valley Habitat Plan, Santa Clara County, California. Available: https://scv-habitatagency.org/178/Santa-Clara-Valley-Habitat-Plan. Accessed: July 2018.

Santa Clara County Airport Land Use Commission. 2011. Comprehensive Land Use Plan, Santa Clara County: Norman Y. Mineta San Jose International Airport. (Last amended November 16, 2016.) Available: https://www.sccgov.org/sites/dpd/Commissions/ALUC/Pages/ALUC.aspx. Downloaded: July 2018.

| **XII. MINERAL RESOURCES**<br><br>*Would the project:* | **Potentially Significant Impact** | **Less Than Significant with Mitigation Incorporated** | **Less Than Significant Impact** | **No Impact** |
|---|---|---|---|---|
| (a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? | ☐ | ☐ | ☐ | ■ |

| XII. MINERAL RESOURCES<br><br>*Would the project:* | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| (b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | ☐ | ☐ | ☐ | ■ |

## Discussion of Checklist Responses

### Potential to Reduce Availability of Regionally Important Mineral Resources

All of the project Segments are located on the portion of the Santa Clara Valley floor zoned MRZ-1 for aggregate resources by the State of California pursuant to the Surface Mining and Reclamation Act. MRZ-1 zoning applies to areas where adequate information indicates that no significant mineral deposits are present, or where such deposits are judged unlikely to be present (Kohler-Antablin 1996). Moreover, all of the Segments are located in extensively developed areas that are zoned for land uses incompatible with mineral extraction activities. There would be No Impact related to loss or reduced availability of mineral resources of value to the region or the state as a whole. No mitigation is required.

### Potential to Reduce Availability of Locally Important Mineral Resources

All of the project Segments except for Segment 35 are located in areas that have no history of mining or minerals extraction, and in recent decades have become increasingly developed with land uses that are incompatible with such activities. Segment 35 is at the south edge of the Baylands, where evaporative production of salt from diked seawater remained an important contributor to the local economy into recent decades. However, with the recent—and expanding—push to restore tidal exchange and reinstitute natural habitat in the former Baylands salt ponds (see for example http://www.southbayrestoration.org), it seems unlikely that salt extraction will regain its former economic importance in the South Bay region. In this context, No Impact is reasonably foreseeable at any of the Segments with respect to locally important mineral resources. No mitigation is required.

## Reference Cited in this Section

Kohler-Antablin, S. 1996. Revised Mineral Land Classification Map, Aggregate Resources Only, South San Francisco Bay Production-Consumption Region, Mountain View Quadrangle. Scale 1:48,000. (California Division of Mines and Geology Open-File Report 96-03 Plate 5 of 29.) Available: https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc. Downloaded: July 2018.

*Checklist continues on next page.*

| XIII. NOISE<br><br>*Would the project:* | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| (a) Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project, in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | ☐ | ☐ | ☐ | ■ (long-term Benefit) |
| (b) Result in generation of excessive groundborne vibration or groundborne noise levels? | ☐ | ☐ | ☐ | ■ (long-term Benefit) |
| (c) For a project located in the vicinity of a private airstrip or within an airport land use plan area, or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | ☐ | ☐ | ☐ | ■ |

## Discussion of Checklist Responses

### Potential to Generate Substantially Increased Ambient Noise Levels

In general, noise in Santa Clara is regulated under Section 9.10 of the City Code, which sets out maximum exterior noise levels based on land use (zoning). However, the City Code does not establish noise limits for construction during allowable work hours. Instead, to reduce disturbance, the City Code limits construction work on privately owned parcels to the hours 7:00 AM – 6:00 PM Monday through Friday and 9:00 AM – 6:00 PM Saturday. For private projects, work outside standard construction hours may also be authorized by permit to exceed the noise limits typically applied to surrounding land uses.

City construction hours are typically 7:00 AM – 5:00 PM Monday through Friday, except for holidays. If work outside these hours is necessary for City projects, an internal review is conducted to minimize noise disturbance as much as possible while still accomplishing the work required to provide needed public servides.[14] Consequently, there would be No Impact with regard to exceedance of any applicable noise standard. No mitigation is required.

Nonetheless, the City recognizes that construction noise can be annoying and can create substantial disturbance. Section 1.15 of the City's Standard Specifications for Public Works Construction (Noise Control) requires contractors on City projects to meet federal Occupational Safety and Health Administration (OSHA)

[14] As discussed in Section 2, night work may be necessary to avoid disrupting traffic flow on Saratoga Avenue, to avoid traffic conflicts in parking lot areas, and/or to avoid disturbance to trail users at Segments 12 and 35.

standards and to limit certain noise-generating activities to the hours when they are least likely to be disturbing. Contractors must also ensure and provide certification to the City that all construction equipment and vehicles are maintained in good mechanical condition and equipped with properly installed engine mufflers. Additionally,

- contractors on City projects are required to take reasonable measures to avoid unnecessary noise, based on the normal ambient sound levels in the area during working hours
- equipment must be operated in the manner that generates the least noise possible while still accomplishing the needed work efficiently
- noise screens or barriers must be used when they offer an effective means of reducing noise disturbance to the occupants of buildings adjacent to construction sites

All of these requirements will apply to the proposed projects. Because the Standard Specifications are included in the project contract documents, they will be contractually binding on the contractor, with the City taking responsibility for ensuring proper implementation.

Over the long term, the proposed repairs would decrease the need for maintenance activity at the project Segments. As a result, once construction is complete, the projects would have No Impact with regard to increased noise generation, and are expected to result in a long-term Benefit. No mitigation is required.

## Potential to Generate Excessive Groundborne Vibration/Groundborne Noise

The City Code (Section 9.10.050) regulates vibration from fixed (stationary) sources but does not establish limits for construction-related vibration. Like noise, vibration from construction on privately owned parcels is regulated by limiting the hours work is allowed; there is no standard for vibration from work on publicly owned parcels. The There would be thus No Impact during construction with regard to exceedance of any applicable vibration standard. No mitigation is required.

As with noise, the City is cognizant that vibration generated by construction can be intrusive and annoying. However, the activities proposed at all Segments typically generate very low levels of vibration, work would be of very short duration, and the requirements of the Standard Specifications that are intended to reduce noise disturbance would also reduce vibration disturbance.

As identified in the previous item, the proposed repairs would decrease the need for onoing maintenance activity at the project Segments. As a result, once construction is complete, the projects would have No Impact with regard to increased generation of excessive groundborne vibration, and are expected to result in a long-term Benefit. No mitigation is required.

## Potential for Exposure to Excessive Airport Noise

### Noise Related to Private Airstrips

None of the project Segments is located in proximity to any private airport or airstrip. There would be No Impact related to noise associated with private airstrips. No mitigation is required.

*Checklist continues on next page*

Noise Related to Public/Public Use Airports

The Federal Aviation Administration (FAA) considers 65 dB $L_{dn}$ as the threshold of significant aircraft noise (Federal Aviation Administration 2018).[15] All of the project Segments are well outside the area expected to experience noise levels of 65 dB CNEL[16] or more as a result of operations at SJC, even with the forecasted increase in airport usage that was incorporated into the County Airport Land Use Commission's noise modeling (Santa Clara Airport Land Use Commission 2011, Figure 5). As a result, there would be No Impact with regard to exposing construction workers to excessive airport noise levels. No mitigation is required.

Over the long term, because routine operations and maintenance would resume following repairs, and maintenance needs would likely decrease, there would be no need for increased operations or maintenance staffing as a result of the proposed projects, and no increase in exposure of City workers to airport noise over the long term. Over the long term, there would be No Impact, and no mitigation is required.

## References Cited in this Section

Federal Aviation Administration. 2018. Aircraft Noise Issues. Available: https://www.faa.gov/about/office_org/headquarters_offices/apl/noise_emissions/airport_aircraft_noise_issues/. Accessed: July 2018.

Federal Transit Administration. 2006. Transit Noise and Vibration Impact Assessment. Available: https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/fta-noise-and-vibration-impact-assessment. Downloaded: December 2012 and August 2018.

Santa Clara County Airport Land Use Commission. 2011. Comprehensive Land Use Plan, Santa Clara County: Norman Y. Mineta San José International Airport. (Last amended November 16, 2016.) Available: https://www.sccgov.org/sites/dpd/Commissions/ALUC/Pages/ALUC.aspx. Downloaded: July 2018.

Santa Clara County Airport Land Use Commission. 2012. Comprehensive Land Use Plan, Santa Clara County: Moffett Federal Airfield. (Last amended November 18, 2016.) Available: https://www.sccgov.org/sites/dpd/DocsForms/Documents/ALUC_NUQ_CLUP.pdf. Downloaded: July 2018.

| **XIV. POPULATION & HOUSING**<br><br>*Would the project:* | **Potentially Significant Impact** | **Less Than Significant with Mitigation Incorporated** | **Less Than Significant Impact** | **No Impact** |
|---|---|---|---|---|
| (a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | ☐ | ☐ | ☐ | ■ |

[15] $L_{dn}$ refers to the "day-night level", a weighted average of sound levels throughout the day, corrected for the varying sensitivity of the human ear to sounds with different frequencies and with a penalty added for sounds occurring during the nighttime hours (10:00 PM to 7:00 AM).

[16] CNEL stands for Community Noise Equivalent Level. The FAA considers CNEL as equivalent to $L_{dn}$ for purposes of airport land use planning (Santa Clara County Airport Land Use Commission 2012).

| XIV. POPULATION & HOUSING<br><br>*Would the project:* | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| (b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ■ |

## Discussion of Checklist Responses

### Potential to Induce Unplanned Population Growth

The proposed projects would entail repairs to existing sanitary sewer infrastructure with no increase in capacity. They would not directly involve construction of new housing or businesses of any kind and would not indirectly foster new development by expanding the capacity of City infrastructure. Additionally, although the repaired sewer lines may serve future development in the City, any such development would take place under the auspices of the City's General Plan (City of Santa Clara 2014) and/or specific plans, and would be subject to separate environmental review and City approvals if or when it is proposed. The proposed repairs would thus have No Impact related to inducement of population growth, and no mitigation is required.

### Potential to Displace Existing Populations or Housing

The construction workforce required to carry out the proposed repairs would be comparatively small (estimated at no more than 6 persons onsite at any given time; see Tables 2-1, 2-2, and 2-3) and is expected to draw on the locally available workforce within the greater San Francisco Bay Area. No Impact related to displacement of people is anticipated during the construction period.

Because the proposed projects would involve repairs to existing infrastructure that is already in place within City roadways and easements, there would be no potential to displace existing housing. There would be No Impact related to displacement of housing, and therefore No Impact related to displacement of people over the long term.

No mitigation is required.

## Reference Cited in this Section

City of Santa Clara. 2014. Celebrating Our Past, Present and Future: City of Santa Clara 2010 – 2035 General Plan. Last updated December 2014. Available: http://santaclaraca.gov/government/departments/community-development/planning-division/general-plan. Downloaded: January 2019.

*Checklist continues on next page.*

| XV. PUBLIC SERVICES<br><br>*Would the project:* | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| (a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services: | | | | |
| (i) Fire protection? | ☐ | ☐ | ☐ | ■ |
| (ii) Police protection? | ☐ | ☐ | ☐ | ■ |
| (iii) Schools? | ☐ | ☐ | ☐ | ■ |
| (iv) Parks? | ☐ | ☐ | ☐ | ■ |
| (v) Other public facilities? | ☐ | ☐ | ☐ | ■ |

## Discussion of Checklist Responses

As discussed in the previous item, the proposed projects would entail repairs to existing sanitary sewer infrastructure with no increase in capacity. The repairs would not directly induce population growth, nor would they remove obstacles to growth or otherwise indirectly foster development. As a result, the proposed projects would have No Impact related to the need to construct new public facilities or expand public services. No mitigation is required.

## References Cited in this Section

None.

| XVI. RECREATION<br><br>*Would the project:* | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| (a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | ☐ | ☐ | ☐ | ■ |

| XVI. RECREATION<br>*Would the project:* | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| (b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | ☐ | ☐ | ☐ | ■ |

## Discussion of Checklist Responses

### Potential to Increase Use of Existing Parks/Recreational Facilities

As discussed in the two previous items, the proposed projects would not construct new housing, relocate or displace populations, or indirectly foster future planned or unplanned growth. Therefore, they would not increase the use of existing parks or recreational facilities. There would be No Impact related to overuse and physical deterioration of parks or recreational facilities, and no mitigation is required.

### Potential to Include or Require Construction or Expansion of Parks/Recreational Facilities

The proposed projects would not include or involve parks or recreational facilities of any type. There would be No Impact related to construction of such facilities, and no mitigation is required.

## References Cited in this Section

None.

| XVII. TRANSPORTATION<br>*Would the project:* | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| (a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities? | ☐ | ☐ | ☐ | ■ |
| (b) Conflict or be inconsistent with *CEQA Guidelines* Section 15064.3, Subdivision [b]? | ☐ | ☐ | ■ (construction) | ■ (potential for slight long-term Benefit) |
| (c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | ☐ | ☐ | ☐ | ■ |
| (d) Result in inadequate emergency access? | ☐ | ☐ | ☐ | ■ |

| XVII. TRANSPORTATION<br><br>*Would the project:* | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| (e) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? | ☐ | ☐ | ☐ | ■ |

## Discussion of Checklist Responses

### Potential to Conflict with Circulation System Programs, Plans, Ordinances, or Policies

Background

The City's General Plan (City of Santa Clara 2014) envisions "[a] convenient and efficient Citywide system that promotes a balance of all modes of transportation" that includes a safe and efficient multimodal street system and encourages alternative transportation modes (transit, bicycle, and pedestrian) as alternatives to the auto. The General Plan also encourages both public- and private-sector participation in Transportation Demand Management (TDM), a comprehensive approach to reduce automobile use by promoting alternatives such as public transit, ridesharing, bicycling, walking, and telecommuting through measures such as carpool/vanpool programs, car and bicycle sharing opportunities, support for telecommuting workers, flexible and alternate work schedules, and onsite child care and cafeterias (City of Santa Clara 2014).

Consistent with the General Plan, the City is currently updating its Bicycle Master Plan (City of Santa Clara 2019a) and is now developing its first-ever Pedestrian Master Plan (City of Santa Clara 2019b). The Bicycle Master Plan guides City spending on bicycle infrastructure and rider education. The current adopted Plan (City of Santa Clara 2009) emphasizes expanding the bicycle network and meeting California state design standards in order to qualify for state Bicycle Transportation Account funding for bicycle infrastructure projects. It also identifies best practices for bicycle safety, based on a survey of other adopted bicycle plans. The Bicycle Master Plan update now in progress focuses on identifying projects and programs that would encourage ridership by making bicycling in the City feel safer, as well as incorporating community input on (1) locations where new or upgraded bikeways or other bicycle infrastructure are needed and (2) programs the community would like to see implemented (City of Santa Clara 2019a). The Pedestrian Master Plan will lay out a strategy to make walking a safer and more viable transportation option in the City. The planning process seeks to identify pedestrian improvements needed to expand and close gaps in the existing pedestrian network, improve connectivity to public transportation, increase pedestrian mobility, and encourage the public to choose more sustainable modes of transportation (City of Santa Clara 2019b).

The City has also adopted a Neighborhood Traffic Calming Program to improve safety and address community concerns regarding traffic flow on neighborhood streets. Measures included in the Neighborhood Traffic Calming Program include increased enforcement, additional signage and striping, speed warning radar trailers and electronic speed feedback signs, higher-visibility crosswalks, and roadway design features such as intersection bulb-outs (City of Santa Clara 2019c).

Public transit within the City is provided by the Santa Clara Valley Transportation Authority (VTA), which provides regional light rail service as well as local and commuter bus service and paratransit and also participates in countywide bicycle and complete streets circulation planning. VTA's governing documents are its Strategic Plan, Valley Transportation Plan, which is currently being updated (Santa Clara Valley Transportation Authority 2014, 2019), and Congestion Management Program (Santa Clara Valley Transportation Authority 2017).

VTA's Strategic Plan is the guiding high-level vision document, establishing the agency's mission, vision, and values as a basis for business and program planning (Santa Clara Valley Transportation Authority 2015).

The Valley Transportation Plan is a countywide long-range implementation plan that provides the planning and policy framework to deliver mid-term transportation projects in 3 program areas: Highways (including major freeway improvements, local freeway interchanges, and express lane projects), Local System (including local roadway improvements, expressway improvements, bicycle and pedestrian projects, and technology-related projects), and Transit Program (including projects related to transit efficiency and new transit improvements). The Valley Transportation plan also provides for pavement management and community involvement in planning (Santa Clara Valley Transportation Authority 2019a).

The Congestion Management Program addresses VTA's responsibilities as the designated Congestion Management Agency for Santa Clara County per California Government Code transportation planning requirements (Government Code Section 65088 ff.) aimed at fostering interjurisdictional/interagency transportation planning to reduce traffic congestion, improve land use decision-making, and reduce air pollution (Santa Clara Valley Transportation Authority 2019b). It includes a capital improvements program specifically aimed at these goals.

Potential for Conflicts

*Construction Period.* Construction and staging at Segment 23 would add construction vehicles, equipment, and personnel to a City roadway (Saratoga Avenue immediately north of San Tomas Expressway). There is currently no transit service on Saratoga Avenue, and in the vicinity of Segment 23, Saratoga Avenue does not currently have bicycle lanes, but it does carry bicycle and pedestrian traffic in addition to automobiles. The City is planning to add a Class II bike lane on Saratoga Avenue north of San Tomas Expressway, but construction is not expected to begin until August 2020 and the project would not be complete until early 2021. The deadline for completion of sewer repairs at Segment 23 is January 9, 2020. As a result, there would be no conflict between construction windows for the two projects, although there would be some potential for repairs at Segment 23 to obstruct or conflict with existing multimodal traffic. However, as discussed in the *Hazards & Hazardous Materials* section of this checklist, the City's Standard Specifications require contractors on Public Works projects to develop a Traffic Control and Detour Plan that identifies lane closures and no parking areas, if any; provides detours as necessary to maintain safe passage for vehicles, bicyclists, and pedestrians; and provides for ingress/egress to adjacent properties. Because this requirement is multimodal (i.e., addresses not only the needs of automobile traffic, but also transit, bicyclists, and pedestrians), the proposed repairs at Segment 23 are considered consistent with City and VTA transportation system plans.

Segments 29 – 31 are located within privately owned parking lots, where repair work could reduce available parking for vehicles, obstruct vehicle traffic, and conflict with bicyclists and pedestrians accessing and egressing facilities at 1400 Kifer Road, 1390 Kifer Road, and 350 Oakmead Parkway. As at Segment 23, however, the potential for multimodal conflicts would be addressed by development and implementation of the Traffic Control and Detour Plan. Repairs at Segments 29 – 31 are therefore also considered consistent with relevant City and VTA transportation system Plans.

Segments 35 and 12 would entail work within and in proximity to multi-use trails (San Tomas Aquino Creek Trail and Guadalupe River Trail, respectively) that support bicycle and pedestrian travel. Segment 12 could also require activity and/or staging within the parking lot at 2788 San Tomas Expressway. However, as with the other project Segments, the potential for conflicts would be addressed by development and implementation of site-specific Traffic Control Plans addressing vehicular, bicycle, and pedestrian needs. Repairs at Segments 35 and 12 are therefore also considered consistent with relevant City and VTA transportation system plans.

As a result, during construction, there would be No Impact at any of the project Segments with regard to conflict with a program, plan, ordinance, or policy addressing the circulation system. No mitigation is required.

*Long Term.* Once construction is complete, the City's routine program of operations and maintenance would resume. Routine activities related to essential utilities are typically considered in long-range transportation planning, and future maintenance work would be subject to requirements for multimodal traffic safety similar to those that apply during the construction period. Future operations and maintenance are thus considered consistent with relevant City and VTA transportation system plans. Over the long term, there would be No Impact with regard to conflict with a program, plan, ordinance, or policy addressing the circulation system. No mitigation is required.

## Potential for Conflict or Inconsistency with *CEQA Guidelines* Section 15064.3[b]

Section 15064.3 of the state's *CEQA Guidelines*, adopted in December 2018, lays out the state's current process for evaluating and determining the significance of transportation impacts, with an emphasis on vehicular (roadway) traffic. The provisions of *Guidelines* Section 15064.3 will be mandatory statewide beginning on July 1, 2020 although lead agencies may choose to adopt them earlier. The City is proceeding toward universal use of the new Guidelines 15064.3 provisions in time for the statewide deadline, and they are used in this document.

For many years, the prevailing approach to analysis of traffic impacts under CEQA focused on roadway and intersection function or *level of service* (LOS)—that is, on the experience of the driver in traffic. Under this approach, as long as roadways and intersections were projected to function at acceptable levels as defined by local agency standards, a project's impacts were typically found to be Less than Significant even if the project would add a considerable volume of traffic to the roadway system.

In recent years, however, the focus of concern has shifted progressively from roadway and intersection function to the potential for projects to increase overall vehicular travel, expressed as *vehicle miles traveled* or VMT. In part, this responds to the increasing visibility of climate change issues; vehicle exhaust is a source of GHG emissions. It also reflects growing concern about the other environmental impacts of development "sprawl" and an increased will to capitalize on opportunities for infill and redevelopment of more compact urban centers.

Now, under *CEQA Guidelines* Section 15064.3[b], VMT—defined as "the amount and distance of automobile travel attributable to a project"—is explicitly recognized as the most appropriate metric for transportation impacts and lead agencies are directed that a potential "effect on automobile delay" should not be regarded as a significant environmental impact for most projects. The lead agency has discretion in choosing the method used to identify a project's VMT (*CEQA Guidelines* 15064.3 [b][4]) and, implicitly, the responsibility to identify an appropriate, substantiated threshold of significance (the level at which project VMT is considered a significant impact and requires mitigation). The *Guidelines* (15065.3[b][3]) also afford lead agencies the discretion to utilize qualitative methodology if quantitative methods or models are not yet available to quantitatively estimate VMT for near-term projects.

The City is in the process of developing a quantitative VMT significance threshold. In the meantime, until the quantitative VMT threshold had been developed, the City continues to use LOS as a threshold of significance. Qualitative analysis based on VMT follows; analysis using the LOS standard is presented below.

For these projects, construction would require contractor mobilization and demobilization as well as materials deliveries and thus would result in a minor, short-term increase in Citywide VMT due to contractor vehicles, equipment, and materials delivery trucks. Because the increase would be minor and of very short duration, it is considered Less than Significant. No mitigation is required.

Once the proposed repairs are complete, normal operations and maintenance would resume. There would be no long-term increase in VMT, and could be a slight long-term decrease due to the likely decrease in frequency of maintenance. There would be No Impact, and likely a slight long-term Benefit, with regard to potential inconsistency with *CEQA Guidelines* Section 15064.3[b]. No mitigation is required.

## Potential to Increase Hazards Due to Design Geometry or Incompatible Uses

The proposed projects would not result in above-grade modifications to any City roadways. There would be No Impact related to roadway design features.

The repairs are proposed to improve the integrity and reliability of existing sanitary sewer infrastructure serving existing land uses. They would not modify zoning or otherwise alter land uses in the vicinity of the project Segments. They would therefore have No Impact related to potential future introduction of incompatible traffic to City roadways.

No mitigation is required.

## Potential to Result in Inadequate Emergency Access

During construction, as described in the *Hazards & Hazardous Materials* section of this checklist, the City's Standard Specifications for Public Works Projects requires contractors to develop a Traffic Control and Detour Plan that identifies lane closures and no parking areas, if any; provides detours as necessary; and provides for ingress/egress to adjacent properties. Contractors are prohibited from impeding the use of roadways, walkways, and other facilities that convey vehicle and pedestrian traffic without providing for safe temporary detours approved by the City. With these requirements in place, the proposed repairs would not result in temporarily inadequate emergency access to neighboring properties during construction. There would be No Impact related to inadequate emergency access during construction.

Over the longer term, as identified above, the proposed repairs would not result in above-grade modifications to City roadways, nor would they modify driveways or other access points to nearby properties. As a result, over the long term, there would be No Impact related to inadequate emergency access.

No mitigation is required.

## Potential to Conflict with Applicable Congestion Management Program and/or LOS Standards

As described above, the City continues to utilize LOS as a threshold of significance for evaluating transportation impacts, until such time as the City has developed a quantitative methodology for utilizing VMT as a threshold. The City of Santa Clara uses the VTA's Congestion Management Plan guidelines, which state that a project's traffic impacts should be analyzed during the weekday AM and PM peak periods if the project would generate 100 or more net new AM or PM peak-hour trips. Construction would temporarily result in the addition of vehicles

to area roadways, but due to the small number of workers and limited equipment required, the construction traffic generated by the proposed projects would be substantially lower than the VTA's screening threshold. Once the repairs are complete, normal operations would resume, with maintenance needs expected to decrease; as result, there would be no long-term increase in traffic generation as a result of the proposed projects. There would be No Impact related to conflict with an applicable congestion management program or LOS standards, and no mitigation is required.

## References Cited in this Section

City of Santa Clara. 2009. Final Bicycle Plan Update. Available: http://santaclaraca.gov/home/showdocument?id=42150. Downloaded: January 2019.

City of Santa Clara. 2019a. Bicycle Master Plan Update 2018. Available: http://santaclaraca.gov/government/bicycle-plan-update. Accessed: January 2019.

City of Santa Clara. 2019b. Pedestrian Master Plan. Available: http://santaclaraca.gov/government/pedestrian-master-plan. Accessed: January 2019.

City of Santa Clara. 2019c. Neighborhood Traffic Calming Program. Available: http://santaclaraca.gov/government/departments/public-works/engineering/traffic-engineering/neighborhood-traffic-calming-program-ntcp. Accessed: January 2019.

Santa Clara Valley Transportation Authority. 2014. Valley Transportation Plan 2040 [plan document]. Available: vtaorgcontent.s3-us-west-1.amazonaws.com/Site_Content/VTP2040_final_hi%20res_030315.pdf. Accessed: January 2019.

Santa Clara Valley Transportation Authority. 2015. 2015 Congestion Management Program [plan document]. Available: http://www.vta.org/projects-and-programs/congestion-management-program/document. Accessed: January 2019.

Santa Clara Valley Transportation Authority. 2016. Create, Collaborate, Lead: VTA 2017–2022 Strategic Plan. Available: http://www.vta.org/about-us/vta-strategic-plan. Accessed: January 2019.

Santa Clara Valley Transportation Authority. 2019b. Valley Transportation Plan. Available: http://www.vta.org/projects-and-programs/planning/valley-transportation-plan-2040-vtp-2040. Accessed:

Santa Clara Valley Transportation Authority. 2019a. Congestion Management Program. Available: http://www.vta.org/projects-and-programs/congestion-management-program. Accessed: January 2019 2019.

*Checklist continues on next page*

| XVIII. TRIBAL CULTURAL RESOURCES<br><br>*Would the project:* | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| (a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: | | | | |
| (i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1[k], or | ☐ | ☐ | ☐ | ■ |
| (ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Subdivision [c] of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | ☐ | ☐ | ☐ | ■ |

## Discussion of Checklist Responses

### Potential to for Adverse Change in Significance of a Tribal Cultural Resource

As discussed in the Cultural Resources section of this checklist, and in more detail in the cultural resources studies prepared for the proposed projects (Basin Research Associates 2019a, 2019b, 2019c, 2019d), no recognized tribal cultural resources have been identified in the immediate vicinity of any of the project Segments. No Impact on tribal cultural resources is anticipated, and no mitigation is required.

## References Cited in this Section

Basin Research Associates. 2019a. Archaeological Review (CEQA), Segments 29 – 31 (Kifer Road and Oakmead Parkway), City of Santa Clara Sanitary Sewer Condition Assessment Repairs. San Leandro, CA. Prepared for Redtail Consulting, Fremont, CA; Mott MacDonald, San José, CA; and City of Santa Clara. (Appendix C to this Initial Study.)

Basin Research Associates. 2019b. Archaeological Review (CEQA), Segment 23 (Saratoga Avenue), City of Santa Clara Sanitary Sewer Condition Assessment Repairs. San Leandro, CA. Prepared for Redtail Consulting, Fremont, CA; Mott MacDonald, San José, CA; and City of Santa Clara. (Appendix C to this Initial Study.)

Basin Research Associates. 2019c. Archaeological Review (CEQA), Segment 12 (San Tomas Aquino Creek), City of Santa Clara Sanitary Sewer Condition Assessment Repairs. San Leandro, CA. Prepared for Redtail Consulting, Fremont, CA; Mott MacDonald, San José, CA; and City of Santa Clara. (Appendix C to this Initial Study.)

Basin Research Associates. 2019d. Historic Property Survey Report/Finding of Effect (No Historic Properties Affected), City of Santa Clara Sanitary Sewer Condition Assessment Repairs, Segment 35. San Leandro, CA. Prepared for Redtail Consulting, Fremont, CA; Mott MacDonald, San José, CA; and City of Santa Clara. (Appendix C to this Initial Study.)

| **XIX. UTILITIES & SERVICE SYSTEMS**<br><br>*Would the project:* | **Potentially Significant Impact** | **Less Than Significant with Mitigation Incorporated** | **Less Than Significant Impact** | **No Impact** |
|---|---|---|---|---|
| (a) Require or result in the relocation or construction of new or expanded water or wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? | ☐ | ☐ | ☐ | ■ |
| (b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years? | ☐ | ☐ | ☐ | ■ |
| (c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | ☐ | ☐ | ☐ | ■ |
| (d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? | ☐ | ☐ | ☐ | ■ (potential for long-term Benefit) |

| XIX. UTILITIES & SERVICE SYSTEMS<br><br>*Would the project:* | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| (e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | ☐ | ☐ | ☐ | ■ |

## Discussion of Checklist Responses

### Potential Need for New or Relocated Utilities

The proposed projects focus exclusively on repairs to existing sanitary sewer infrastructure. As described in the *Population & Housing* section of this checklist, they would have no potential to increase or relocate area populations. As a result, they would neither require nor result in relocation of water or wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities. There would be No Impact, and no mitigation is required.

### Potential for Insufficient Water Supplies

The proposed projects would have no potential to alter the demand for water supplies: they would not involve housing construction and would neither increase nor relocate populations. As a result, there would be No Impact related to the potential for insufficient water supplies in normal, dry, or multiple-dry years. No mitigation is required.

### Potential for Determination of Inadequate Capacity by Wastewater Treatment Provider

The proposed projects focus on repairs to existing sanitary sewer infrastructure, with no increase in capacity. As discussed in above for water supply, the repairs would have no potential to increase wastewater generation, since they would not involve housing construction and would neither increase nor relocate populations. As a result, there would be No Impact related to the potential for a determination of inadequate capacity by the San José – Santa Clara Regional Wastewater Facility. No mitigation is required.

### Potential to Generate Excessive Solid Waste or Impair Waste Reduction Goals

The proposed repairs would generate a small amount of waste during construction, including pavement and excavated soils removed to enable manhole replacement at Segment 30 and manhole frame rehabilitation at Segment 35. For cost reasons, however, pavement removal and excavation would be limited to the minimum necessary to carry out the repairs; there would be No Impact related to generation of excessive solid waste or impairment of waste reduction goals.

Once the proposed repairs are completed, the City's routine program of operations and maintenance would resume, with a likely decrease in maintenance frequency due to the improved condition of the project Segments. The projects would thus have no potential to increase long-term solid waste generation, and could decrease it. Over the long term, there would be No Impact, and could be a Benefit, related to generation of excessive solid waste and impairment of waste reduction goals. No mitigation is required.

### Compliance with Federal, State, and Local Solid Waste Management and Reduction Statutes

The City's Standard Specifications for Public Works Construction require compliance with all applicable solid waste handling and disposal statutes. As a result during construction, there would be No Impact related to non-compliance with solid waste statutes, and no mitigation is required.

Similarly, City workers are also required to comply with applicable federal, state, and local waste statutes as they carry out operations- and maintenance-related activities. As a result, once the City's routine operations and maintenance resume, there would be No Impact related to non-compliance with solid waste statutes, and no mitigation is required.

## References Cited in this Section

None.

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

## Discussion of Checklist Responses

Background

Firefighting responsibility in California wildlands is divided among local, state, and federal entities, depending on land ownership, characteristics, population, and incorporation status. Section 4125 of the California Public Resources Code charges the Board of Forestry and Fire Protection with delineating portions of the state where the financial responsibility for preventing and suppressing wildland fires rests primarily with the state. These *State Responsibility Areas* (SRAs) include

- lands that are partially or wholly covered by forests or by trees producing (or capable of producing) forest products
- lands that are sources of water for irrigation, domestic, or industrial use and are partially or wholly covered by vegetation that protects the soil from excessive erosion, retards runoff, or accelerates groundwater infiltration

Adjacent lands that are, or have the potential to be, used for range or forage purposes are also considered SRAs, as are unincorporated city and county areas with populations less than 25,000, unless the county has accepted fire prevention and suppression responsiblity by ordinance.

Lands owned or controlled by a federal agency are considered Federal Responsibility Areas (FRAs), and most lands within incorporated city or county boundaries are considered Local Responsibility Areas (LRAs) (California Code of Regulations Sections 4125 – 4129). Within FRAs, fire protection is typically provided by the federal agency that owns or manages the land. Within SRAs, fire protection is provided by the California Department of Forestry and Fire Protection (CAL FIRE).

Within incorporated LRAs, the local jurisdiction is typically the fire protection provider. In the City, fire protection—along with emergency medical services, hazardous materials response, and related community education and training—is provided by the Santa Clara Fire Department, which operates 10 fire stations housing a total of 8 engines, 2 trucks, 1 rescue unit, 3 ambulances, 1 hazardous materials unit, and 1 command vehicle.

Potential for Wildfire Impacts

As an incorporated city surrounded by other incorporated jurisdictions, Santa Clara is not within or adjacent to any SRA (California Department of Forestry and Fire Protection 2012), and none of the project Segments is within or in proximity to any Very High Fire Hazard Severity Zone identified by CAL FIRE (California Department of Forestry and Fire Protection 2007, 2008). Moreover, all of the Segments are located in developed areas, and the proposed projects would entail only repairs to existing sanitary sewer infrastructure. As a result, the proposed projects

- would have no potential to impair an adopted emergency response plan or emergency evacuation plan for a wildland area
- would not involve or modify wildlands and thus would have no potential to increase the overall risk of wildfire
- would not result in development in or adjacent to wildlands, potentially increasing exposure to wildfire or wildfire-related pollutants
- would not require installation or maintenance of infrastructure in wildlands, potentially increasing wildfire risks

- would not construct housing or relocate populations and therefore would not expose people or structures to risks associated with accelerated post-fire runoff, post-fire slope instability, or drainage changes

There would be No Impact related to an increase in wildfire-related hazards, and no mitigation is required.

## References Cited in this Section

California Department of Forestry and Fire Protection. 2007. Fire Hazard Severity Zones in SRA, Adopted by CAL FIRE on November 7, 2007. Available: http://www.fire.ca.gov/fire_prevention/fhsz_maps_santaclara. Downloaded: January 2019.

California Department of Forestry and Fire Protection. Date. Very High Fire Hazard Severity Zones in LRA, as Recommended by CAL FIRE. Available: http://www.fire.ca.gov/fire_prevention/fhsz_maps_santaclara. Downloaded: January 2019.

California Department of Forestry and Fire Protection. 2012. Online SRA Viewer. Available: http://www.fire.ca.gov/firepreventionfee/sraviewer_launch. Accessed: January 2019.

| XXI. MANDATORY FINDINGS OF SIGNIFICANCE | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| (a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory? | ☐ | ■ | ☐ | ☐ |
| (b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? | ☐ | ■ (special-status species, archaeological resources) | ■ (all Segments: air quality, GHG emissions, soil/ groundwater contamination; Segment 35 only: topsoil loss) | ☐ |

| XXI. MANDATORY FINDINGS OF SIGNIFICANCE | Potentially Significant Impact | Less Than Significant with Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| (c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | ☐ | ☐ | ■ (long-term Benefit) | ☐ |

## Discussion of Checklist Responses

### Potential to Degrade the Quality of the Environment

As discussed in the *Air Quality* and *Greenhouse Gas Emissions* sections of this checklist, the proposed repairs would not result in Significant adverse impacts on air quality and would not create Significant levels of GHG emissions.

The City has committed to an extensive suite of measures to protect water quality, discussed under *Avoidance and Minimization Measures* in Section 2. Additional measures will be implemented to prevent the spread of potentially contaminated soil and groundwater and to avoid potential impacts due to soil vapors during work at Segment 23 and Segments 29 – 31.

As discussed in the *Biological Resources* section of this checklist, Segment 23 is located in a developed, urbanized area; there would be no potential at this Segment for disturbance or loss of native habitat or impacts on special-status species, and Mitigation Measure Bio-2, Protection of Nesting Birds (General) at All Segments, would effectively address the potential for repair work to disturb nesting birds.

Segments 29 – 31 and Segment 12 are also in urbanized settings, but are adjacent to watercourses. To preserve water quality and habitat value in adjacent and downstream waters, contractor staff would be prohibited from entering sensitive habitat, and, as identified above, the City has committed to extensive Avoidance and Minimization Measures for water quality protection.

Segment 12 has little potential to support special-status species due to it urbanized setting and the modified and channelized condition of San Tomas Aquino Creek in this vicinity, but does offer some suitable nesting habitat for Western Burrowing Owls. The City will accordingly implement the following mitigation measure for work at Segment 12.

- Mitigation Measure Bio-5. Protection of Nesting Western Burrowing Owls at Segments 35 and 12

Segment 35 is located within the historical Baylands, at the transition from densely urbanized to less-developed uses. A number of special-status species have the potential to be present at Segment 35, including two special-status plants, salmonids in the Guadalupe River, California red-legged frog, southwestern (western) pond turtle, several marshland bird species, and Western Burrowing Owls. Here, in addition to the prohibition on entry into sensitive habitat, Avoidance and Minimization Measures for Water Quality Protection, and Mitigation Measure Bio-2 for general nesting bird protection, the City will also implement the following mitigation measures.

- Mitigation Measure Bio-1. Rare Plant Surveys, Protection, and Restoration at Segment 35
- Mitigation Measure Bio-3. Protection of Nesting Tricolored Blackbirds at Segment 35

- Mitigation Measure Bio-4. Protection of Nesting California Black Rail and California Ridgway's Rail at Segment 35
- Mitigation Measure Bio-5. Protection of Nesting Western Burrowing Owls at Segments 35 and 12

With the Avoidance and Minimization Measures and Mitigation Measures Bio-1 through Bio-5 (described in more detail in Section 2 and in *Biological Resources* above, respectively) in place, the potential for repairs at all Segments to substantially degrade the quality of the environment, 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, or substantially reduce the number or restrict the range of a rare or endangered plant or animal would be Less than Significant. No additional Mitigation is required.

As described in the *Cultural Resources* section of this checklist, no recorded historical resources are present at or immediately adjacent to any of the project Segments, and none of the project Segments is considered highly sensitive for previously unknown buried resources. The possibility of encountering buried resources, including human remains, cannot be entirely ruled out, however. To address this concern, where ground disturbance or excavation is required, the City will implement the following mitigation measures to protect archaeological resources and human remains.

- Mitigation Measure Cul-1. Notice of Potential for Buried Cultural Resources in Construction Documents
- Mitigation Measure Cul-2. Retention of On-Call Archaeologist
- Mitigation Measure Cul-3. Worker Awareness Training for Cultural Resources
- Mitigation Measure Cul-4. Evaluation and Treatment of Unanticipated Archaeological Discoveries
- Mitigation Measure Cul-5. Procedures for Discovery of Human Remains

Similarly, as discussed in the *Geology & Soils* section of this checklist, the proposed repairs probably have low potential to result in disturbance or loss of significant paleontological resources, but the possibility cannot be entirely ruled out. To protect paleontological resources and avoid the potential for loss of scientific data, the City will implement the following measures where ground disturbance or excavation is required.

- Mitigation Measure Geo-1. Worker Awareness Training for Paleontological Resources
- Mitigation Measure Geo-2. Stop-Work, Evaluation, and Treatment in the Event of a Paleontological Find

With Mitigation Measures Cul-1 through Cul-5 (described in more detail in the *Cultural Resources* section of this checklist) and Geo-1 and Geo-2 (described in more detail in the *Geology & Soils* section), the proposed projects' potential to eliminate important examples of the major periods of California history or prehistory would be Less than Significant. No additional mitigation is required.

## Potential Contributions to Cumulative Impacts

### CEQA Requirements

The state's *CEQA Guidelines* implicitly recognize that no project is implemented in a vacuum: a project's effects may combine with those of other past, present, and future projects to create an additive effect on the environment. Repeated small impacts over time may also accumulate to create a larger impact. As a result, in

addition to considering a proposed project's incremental (project-specific) outcomes (discussed in the preceding checklist sections), lead agencies are required to analyze *cumulative impacts,* which include:

- the combined impacts of multiple projects, including the proposed project (*CEQA Guidelines* 15355[b]), and
- the combined impact of repeated activities under a single project over time (*CEQA Guidelines* 15355[a])

A project's incremental (project-specific) impact may be individually less than significant, but become significant when viewed in connection with the effects of of other past, present, and future projects—that is, it may become *cumulatively considerable* in the larger context (*CEQA Guidelines* 15065[a][3]). Both types of impacts must be discussed in detail when the impact would be significant and the project has the potential to make a cumulatively considerable contribution (*CEQA Guidelines* 15130).

Two approaches are permitted as the basis to identify cumulative impacts that warrant analysis

- a list of past, present, and probable future projects, including projects outside the control of the lead agency for the proposed project (*CEQA Guidelines 15130*[b][1][a]), or
- a summary of projections contained in an adopted local, regional, or statewide plan, such as a general plan, a regional transportation plan, or a greenhouse gas emissions reduction, or a prior environmental document prepared for such a plan (CEQA Guidelines 15130[b][1][B])

When the "list" approach is used, the lead agency must consider and define the appropriate geographic scope for analysis (*CEQA Guidelines* 15130[b][1][B][3]). Although not explicitly required by the *Guidelines*, this step also makes sense as the starting point for analysis using the "summary of plan projects" approach.

Methods Used in Cumulative Impacts Analysis

The following analysis used the "summary" approach. This was identified as most appropriate because the summary approach requires a broad view of regional conditions, suitable for the resources (e.g., biological resources, cultural resources, hazardous materials contamination) most relevant to the projects' potential impacts. Additionally, in view of the short duration of work proposed at each of the project Segments, the potential overlap if any, between the proposed repairs and other projects would be extremely limited, and Significant cumulative impacts are considered unlikely. As a result, the summary approach was felt to be more conservative.

Resources for which the proposed project would have No Impact, as identified in the preceding checklist sections, were omitted from the analysis, since the project would have no potential either to contribute to, or to independently create, cumulative impacts on these resources.

Project's Potential to Contribute to Cumulative Impacts

Table 3-11 presents the results of the cumulative impacts analysis in detail.

In summary,

- the proposed projects would have the potential to make a Less than Cumulatively Considerable contribution to existing Significant cumulative impacts on the following resources.
    - Air quality (construction period)

  - GHG emissions (construction period)
  - Topsoil loss (construction period, Segment 35 only)

  With the identified Avoidance and Minimization Measures incorporated, the proposed projects would have the potential to make a Less than Cumulatively Considerable contribution to existing Significant cumulative impacts on the following resource.

  - Hazardous materials contamination of soil and groundwater (construction period)

  The proposed projects' potential to contribute to existing Significant cumulative impacts on air quality, GHG emissions, topsoil loss, and hazardous materials contamination of soil and groundwater is considered Less than Significant. No mitigation is required.

- With the identified Avoidance and Minimization Measures and mitigation measures incorporated, the proposed projects would have the potential to make a Less than Cumulatively Considerable contribution to existing Significant cumulative impacts on the following resources.

  - Special-status species (alkali milk-vetch, Congdon's tarplant, southwestern [western] pond turtle, California red-legged frog at Segment 35; special-status birds at Segments 35 and 12; protected nesting birds at all Segments) (construction period)
  - Archaeological resources (construction period, Segments 23, 30, 35)

  The proposed projects' potential to contribution to existing Significant cumulative impacts on special-status species and archaeological resources is considered Less than Significant with Mitigation Incorporated. No additional mitigation is required.

The proposed repairs would restore the integrity and function of the project Segments, substantially reducing or avoiding the potential for future leaks, spills, and overflows. Once repairs are complete at each Segment, normal operations would resume, with the expectation that the need for future maintenance would be reduced for the anticipated lifespan of the repairs (on the order of 50 years for CIPP, 20 years for infiltration grout, and up to several decades for manhole rehabilitation). Consequently, as discussed in detail in Table 3-11, the proposed repairs are evaluated as having No Potential to independently result in new cumulative impacts on any resource over the long term.

## Potential for Substantial Adverse Effects on Human Beings

As described in Section 2 of this Initial Study and in the checklist sections above, all repair work would comply with the City's Standard Specifications for Public Works Construction, including the following requirements.

- A Traffic Control and Detour Plan that provides safe temporary detours for vehicles and pedestrians as necessary and maintains ingress/egress to adjacent properties
- Compliance with all applicable federal and state regulations for hazardous materials use, handling, and disposal
- Measures to reduce construction noise disturbance, such as avoiding unnecessary noise, restricting certain noise-generating activities to specific hours, ensuring that all construction equipment and vehicles are well maintained and equipped with properly installed engine mufflers, operating equipment in the manner that generates the least noise possible while still accomplishing the needed work

efficiently, and using noise screens or barriers when they offer an effective means of reducing noise disturbance to the occupants of neighboring buildings

- Construction dust control
- Compliance with all applicable solid waste handling and disposal statutes

The City has also committed to Avoidance and Minimization Measures to protect water quality; prevent potential exposure to contaminated soil and groundwater and soil vapor; address unanticipated discoveries of hazardous materials contamination; and reduce the potential for exposure to styrene compounds during CIPP lining.

With all of these measures in place, the projects' short- and long-term potential to result in adverse effects on human beings is evaluated as Less than Significant. Moreover, by improving the function of the City's sanitary sewer system and reducing risks of leaks, spills, and overflows, the proposed repairs would be protective of human health and safety over the long term. No mitigation is required.

## References Cited in this Section

Bay Area Air Quality Management District. 2017b. California Environmental Quality Act Air Quality Guidelines. Available: http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines. Downloaded: December 2017.

California Air Resources Board. 2012. California Air Basins. Available: http://www.arb.ca.gov/desig/airbasins/airbasins.htm. Accessed: July 2018.

California Air Resources Board. 2018. Glossary of Air Pollution Terms. Available: http://www.arb.ca.gov/html/gloss.htm. Accessed: July 2018.

City of Santa Clara. 2014. Celebrating Our Past, Present and Future: City of Santa Clara 2010 – 2035 General Plan. Last updated December 2014. Available: http://santaclaraca.gov/government/departments/community-development/planning-division/general-plan. Downloaded: January 2019.

Santa Clara Valley Water District. 2016. 2016 Groundwater Management Plan. Available: https://www.valleywater.org/your-water/where-your-water-comes-from/groundwater/groundwater-management. Downloaded: January 2019.

State Water Resources Control Board. 2015. GeoTracker Online Database. Available: https://geotracker.waterboards.ca.gov. Accessed: October 2018, January 2019.

State Water Resources Control Board. 2018. Final 2014/2016 California Integrated Report (Clean Water Act Section 303[d] List/305[b] Report). Available: https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml. Downloaded: July 2018.

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**Table 3-11. Cumulative Impacts Analysis**

| Resource | Area of Analysis | | Significant Existing Cumulative Impact? | Analysis Needed | | Discussion |
|---|---|---|---|---|---|---|
| | Areas Included | Rationale | | Contribution to Existing Impact | Potential for New Impact | |
| Aesthetics | North Bayshore Precise Plan Area | Aesthetic values in incorporated areas are regulated at the local jurisdiction level, through the General Plan, Precise or Specific Plans, zoning ordinances, and other regulations and policies. As a result, aesthetic character and quality can vary substantially between adjacent communities, and even within a single jurisdiction, depending on permitted land uses and the governing plan document(s). | None identified.<br>Aesthetic character and quality in the City have historically been controlled and maintained through the General Plan (City of Santa Clara 2010) and zoning ordinance, which provide a wide range of detailed standards and guidelines aimed at community character and aesthetics. | | ■ | As discussed in the *Aesthetics* section of this checklist, the projects' only impact related to aesthetics would be the potential for a very short-term, localized increases in glare generation and light spill during construction at each of the project Segments, due to<br>• Reflections from glass and painted metal surfaces of construction vehicles and equipment<br>• Potential need for work lighting if night work is required<br>The proposed repairs would decrease the need for future maintenance along the project Segments; consequently, this type of short-term, localized increase in glare and light spill would be restricted to the very short duration of the construction work period at each of the project Segments. The projects would therefore have No Potential to create a new long-term cumulative impact related to light and glare generation. No further analysis of this topic is warranted, and no mitigation is required. |
| Air Quality | San Francisco Bay Area Air Basin | California's air basins are defined based on a combination of political, geographic, and meteorological criteria (California Air Resources Board 2012, 2018) to include both source and receptor areas for pollutant emissions. | Yes. The SFBAAB is in non-attainment of state and federal standards for ozone/ozone precursors and for particulate matter. These represent Significant cumulative impacts on air quality. | ■ | | The BAAQMD considers air quality degradation an inherently cumulative impact. Consistent with the BAAQMD's CEQA guidelines (Bay Area Air Quality Management District 2017a), this topic is analyzed at a cumulative level in the *Air Quality* section of this Initial Study checklist; no further analysis is warranted, and no mitigation is required. |
| Biological Resources | South San Francisco Bay region | The location, nature, and extent of biological and jurisdictional habitat resources are controlled by physiography and climate, with a secondary overprint resulting from human influences via patterns of land development. As a result, habitats and patterns of species usage in the vicinity of the project Segments are interconnected with the larger mosaic in the south San Francisco Bay region. | Yes. Like other urbanized locations in California, the South Bay region has experienced substantial loss and degradation of natural habitats over the past 2 centuries, as a result of progressive development. This represents a Significant cumulative impact at the landscape or habitat level. Additional Significant cumulative impacts at the species level are considered to exist where individual plant and wildlife species have been identified as qualifying for federal or state special status. | ■ | ■ | <u>Contribution to Existing Impact</u><br>As discussed in the Biological Resources section of this checklist, the proposed repairs would have No Impact related to loss or degradation of natural habitats and thus No Potential to contribute to the existing cumulative impact with regard to habitat loss. No further analysis of this topic is warranted, and no mitigation is required.<br>With the Avoidance and Minimization Measures described in Section 2 in place, the projects would also have No Impact on the following special-status species: California sea-blite, Point Reyes bird's-beak, saline clover, steelhead, Chinook salmon, green sturgeon, white sturgeon, salt marsh harvest mouse, and salt-marsh wandering shrew. The projects would thus have No Potential to contribute to existing Significant cumulative impacts on these species. No further analysis of these species is warranted, and no mitigation is required.<br>The project would have some—probably minor—potential to result in trampling or removal of individuals of alkali milk-vetch and Congdon's tarplant at Segment 35. Mitigation Measure Bio-1 requires preconstruction surveys during the peak blooming period for these species. If individuals of either species are present, they will be protected in place if possible. If protection in place is not feasible (for instance, if plants are located in the footprint that must be disturbed for manhole rehabilitation), following construction the disturbed area will be revegetated using a seed mix that includes the affected species. Seed will be collected onsite if possible; if not, locally native seed will be used. A follow-up site visit will be required in the next blooming period to verify successful germination; if germination is not successful, reseeding and additional follow-up must take place. With these commitments in place, impacts, if any, on alkali milk-vetch and Congdon's tarplant would be Less than Significant at the project-specific level and are also evaluated as Less than Cumulatively Considerable. No mitigation is required.<br>With the adopted Avoidance and Minimization Measures in place, potential impacts on southwestern (western) pond turtle, California red-legged frog, and special-status birds would be effectively avoided or reduced. Impacts are evaluated as Less than Significant at the incremental (project-specific) level |

| Resource | Area of Analysis | | Significant Existing Cumulative Impact? | Analysis Needed | | Discussion |
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| | Areas Included | Rationale | | Contribution to Existing Impact | Potential for New Impact | |
| | | | | | | and are also considered Less than Cumulatively Considerable. No further analysis is warranted, and no mitigation is required.<br>Repair work would have the potential to disturb protected nesting birds, potentially including a number of special-status species. To address this concern, the City has committed to retaining a qualified biologist to conduct preconstruction nesting bird surveys and implement protective no-activity buffers around occupied nests, if any are found. At Segment 35, which offers more abundant and diverse habitat resources, the City will implement additional protective measures for Tricolored Blackbird, California Black Rail, California Ridgway's Rail, and Western Burrowing Owl; Western Burrowing Owl measures will also be implemented at Segment 12. With the commitment to preconstruction nesting bird surveys and nest protection at all Segments, and the additional species-specific measures in place at Segments 35 and 12,, impacts would be Less than Significant at the project-specific level, and are also evaluated as Less than Cumulatively Considerable. No mitigation is required.<br><u>Potential to Create New Impact</u><br>Once the repairs are complete, normal operations would resume. The frequency of maintenance is expected to decrease, however, since the repairs would restore the integrity and function of the project Segments. The repairs would thus have No Potential to result in new cumulative impacts on biological resources. No further analysis is warranted, and no mitigation is required. |
| Cultural Resources | South San Francisco Bay region and greater California | The presence or absence of cultural resources is independent of current political boundaries, reflecting instead past patterns of land use combined with complex factors that control resource preservation and loss over time. For a more comprehensive and conservative analysis, cumulative impacts on these resources were therefore addressed in the context of the greater South Bay region and California as a whole rather than focusing exclusively on the immediate vicinities of the project Segments or an area defined by current political boundaries. | Yes. Urban/suburban expansion has substantially modified the Native American cultural legacy in the South Bay region and throughout California in the past 200 years. This includes culturally important sites, culturally important plant and wildlife resources, and traditional cultural practices. This is considered a Significant cumulative impact with regard to loss of cultural resources. | ■ | N/A | <u>Contribution to Existing Impact</u><br>As discussed in the *Cultural Resources* section of this checklist, the locations of the project Segments are not considered particularly sensitive for archaeological resources, but where ground disturbance/excavation would be required (i.e., at Segments 23, 30, and 35), the potential for unanticipated finds, and associated disturbance or loss of resources, cannot be entirely ruled out. To address this potential, the City has committed to implement Mitigation Measure Cul-1 (Notice of Potential for Buried Cultural Resources in Construction Documents), Mitigation Measure Cul-2 (Retention of On-Call Archaeologist), Mitigation Measure Cul-3 (Worker Awareness Training for Cultural Resources), Mitigation Measure Cul-4 (Evaluation and Treatment of Unanticipated Archaeological Discoveries), and Mitigation Measure Cul-5 (Procedures for Discovery of Human Remains). With these measures incorporated, the projects' impacts on cultural resources would be Less than Significant at the incremental level, and their contribution, if any, to the existing cumulative impact with regard to loss of cultural resources would be Less than Cumulatively Considerable. No further analysis is warranted, and no additional mitigation is required.<br><u>Potential to Create New Impact</u><br>In the project region, this analysis does not apply to cultural resources, since a cumulative regional impact related to loss of cultural resources already exists. The projects' long-term incremental impacts on individual cultural resources, if any, would constitute contributions to the existing cumulative impact, rather than creating a new, separate cumulative impact. No further analysis is warranted. |
| Geology & Soils | Greater San Francisco Bay area | Land use—which relates directly to patterns of topsoil loss, and to the exposure of people and structures to seismic hazards—is regulated at the local jurisdiction level, but the impacts are felt regionally, at the landscape level. Accordingly, impacts related to soil resources and seismic hazards were | Yes. Urbanization in the San Francisco Bay Area has resulted in progressive loss and unavailability of topsoil resources. This represents a Significant cumulative impact.<br>Development in the seismically active San Francisco Bay Area has placed numerous structures and a large population at risk from earthquake effects. This also represents a | ■ | N/A | <u>Contribution to Existing Impact</u><br>Minor excavation would be required at Segment 23 to reconnect existing sewer laterals to the repaired main in Saratoga Avenue, at Segment 30 to remove and replace SSMH 62-40, and at Segment 35 to rehabilitate the frame and channels of SSMH 114-4.<br>Segments 23 and 30 are located in an extensively paved and developed setting, where topsoil has already been removed or substantially disturbed for the construction of existing roadways, parking lots, landscaping, and other improvements. Repairs at Segments 23 and 30 would therefore have No |

| Resource | Area of Analysis | | Significant Existing Cumulative Impact? | Analysis Needed | | Discussion |
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| | | considered in the regional context of the greater Bay Area. | Significant cumulative impact. However, as discussed in the *Geology & Soils* section of this checklist, the proposed repairs would have No Impact with regard to exposure of persons or structures to seismic hazards, and therefore No Potential to Contribute to the cumulative regional impact. No further analysis of this topic is warranted. | | | Impact related to loss of topsoil at the incremental level, and No Potential to Contribute to cumulative areawide loss of topsoil.<br>The east end of Segment 35, where SSMH 114-4 is located, has likely been disturbed by installation of the existing manhole and levee construction, and possibly also by prior agricultural activity. This site is therefore also considered unlikely to preserve an intact, undisturbed topsoil layer, although some topsoil is presumed to be present, since the area is vegetated. However, the extent of topsoil loss would be very limited due to the small size of the excavation footprint needed for manhole rehabilitation here. Because of this site's history of prior disturbance and the small size of the excavation footprint here, the potential for topsoil loss is minor. Impacts, if any, with regard to topsoil loss at Segment 35 would be Less than Significant at the incremental level and are also considered Less than Cumulatively Considerable.<br>No further analysis is warranted, and no mitigation is required.<br><u>Potential to Create New Impact</u><br>In the project region, this analysis does not apply to geology and soils, since a cumulative regional impact related to topsoil loss already exists. Moreover, by decreasing the need for future maintenance along the project Segments (and particularly at Segment 35, where some topsoil may remain), the proposed repairs would reduce the potential for future topsoil loss. No further analysis is warranted. |
| Greenhouse Gas Emissions | San Francisco Bay Area Air Basin | Analysis of cumulative impacts related to GHG emissions considered emissions within the project vicinity and SFBAAB as a general baseline, within the larger context of a globalized impact. | Yes. A growing scientific and regulatory consensus recognizes GHG as a cumulative long-term concern at the local, national, and worldwide scales. | ■ | N/A | Similar to air quality degradation, GHG levels are an inherently cumulative impact. Consistent with the BAAQMD's CEQA guidelines (Bay Area Air Quality Management District 2017a), GHG emissions are analyzed at a cumulative level in the Greenhouse Gas Emissions section of this Initial Study checklist; no further analysis is warranted, and no mitigation is required. |
| Hazards & Hazardous Materials | City of Santa Clara and neighboring areas | Hazardous materials contamination reflects past and current land use patterns, as well as topographic, climatic, hydrologic, and soils-related factors. For a comprehensive assessment, analysis considered hazardous materials in all parts of the City and in adjacent jurisdictions. | Yes. A number of known contaminated sites are present within City limits, representing a Significant cumulative impact. | ■ | ■ | <u>Contribution to Existing Impact</u><br>As described in the *Hazards & Hazardous Materials* section of this checklist, repair work at all of the Segments would require the use of substances that qualify as hazardous materials, but all such substances would be handled and disposed in strict accordance with good construction practices, applicable federal and state regulations, and the City's Standard Specifications for Public Works Construction. In addition, for the Segments that require work in proximity to watercourses (Segments 29 – 31, 35, and 12), the City has committed to implementing a suite of Avoidance and Minimization Measures to protect water quality. With adherence to the City's Standard Specifications, good construction practices, and the added precautions for work near watercourses, impacts related to hazardous materials use and handling during construction are expected to be Less than Significant at the incremental level, and are also considered Less than Cumulatively Considerable. No further analysis is warranted, and no mitigation is required.<br>Once the repairs at each Segment have been completed, normal operations and maintenance would resume. There would be no long-term increase in the use of substances that qualify as hazardous materials and No Impact at the incremental level related to increased hazard to the public or the environment due to routine transport, use, or disposal of hazardous materials. Rather, because the proposed repairs would decrease the need for ongoing maintenance, there would likely be a long-term Benefit with regard to the use and disposal of hazardous substances. The projects are therefore considered to have No Potential to Contribute to the existing cumulative impact with regard to hazardous materials contamination. No further analysis is warranted, and no mitigation is required. |

| Resource | Area of Analysis | | Significant Existing Cumulative Impact? | Analysis Needed | | Discussion |
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| | Areas Included | Rationale | | Contribution to Existing Impact | Potential for New Impact | |
| | | | | | | <u>Potential to Create New Impact</u><br>Because the proposed repairs would decrease the need for future maintenance that could require the use of hazardous substances along the project Segments by comparison with existing conditions, theyare considered to have No Potential to independently create a new cumulative impact with regard to hazardous materials contamination. No further analysis is warranted, and no mitigation is required. |
| Hydrology & Water Quality | Calabazas Creek watershed, Guadalupe Creek watershed, San Tomas Aquino Creek watershed, and downstream receiving waters (Guadalupe Slough, Coyote Slough, South San Francisco Bay); Santa Clara sub-basin of Santa Clara Valley groundwater basin | *Surface Water.* The project Segments are located as follows.<br>• Segment 23: Los Gatos Creek watershed (tributary to Guadalupe Creek watershed)<br>• Segments 29 – 31: Calabazas Creek watershed<br>• Segment 35: Guadalupe Creek watershed<br>• Segment 12: San Tomas Aquino Creek watershed<br>Contributions to cumulative impacts on surface drainage and surface water quality would be limited to those water bodies and downstream receiving waters.<br>*Groundwater.* The project alignment overlies the Santa Clara Sub-Basin of the Santa Clara Valley Groundwater Basin. Contributions to cumulative impacts on groundwater quality would be limited to the sub-basin. | *Surface Water.* Yes. The State Water Resources Control Board is charged with assessing water quality and identifying water bodies under state jurisdiction that are "impaired" by the presence of pollutants such that water quality standards are not met. The following impairments relevant to the project Segments have been identified (State Water Resources Control Board 2018).<br>• Los Gatos Creek – diazinon<br>• Calabazas Creek – diazinon<br>• Guadalupe River – diazinon, mercury, trash<br>• South San Francisco Bay – chlordane, dieldrin, dichlorodiphenyl-trichloroethane (DDT), dioxin compounds, furan compounds, invasive species, mercury, polychlorinated biphenyls (PCBs), selenium<br>These water quality impairments represent a Significant existing cumulative impact.<br>*Groundwater.* Yes. The Santa Clara Valley Water District manages groundwater in the project region and has monitored groundwater quality since the 1980s. Groundwater quality in the Santa Clara Sub-Basin is generally very good; exceedance of California and federal drinking water Maximum Contaminant Levels is a rare occurrence overall (Santa Clara Valley Water District 2016). However, numerous sites with documented groundwater contamination are present within the City and the Sub-Basin as a whole, representing Significant localized cumulative impacts on groundwater quality. | ■ | ■ | <u>Contribution to Existing Impacts</u><br>*Surface Water.* The proposed repairs would involve the use of hazardous substances, as discussed in the previous item, but would not require the use of chlordane, diazinon, dioxin compounds, DDT, furan compounds, mercury compounds, PCBs, or selenium compounds. Debris and trash generated at the work sites would be strictly managed under the City's Standard Specifications and the Avoidance and Minimization Measures adopted for the projects. During construction, the projects would thus have No Potential to Contribute to the existing impairments identified for Los Gatos Creek, Calabazas Creek, the Guadalupe River, or South San Francisco Bay. No further analysis is warranted, and no mitigation is required.<br>Over the long term, the repairs would decrease the need for maintenance along the project Segments, and sanitary sewer operations and maintenance in general do not use any of the substances for which the relevant water bodies are identified as impaired. There would thus be No Potential to Contribute to the identified Significant cumulative surface water quality impacts once the repairs are complete. No further analysis is warranted, and no mitigation is required.<br>*Groundwater.* As discussed in the *Hydrology & Water Quality* section of this checklist, the use of hazardous substances during repairs would be strictly regulated by the City's Standard Specifications and the water quality protection measures specifically adopted for these projects. The projects' potential to contribute to the existing Significant cumulative groundwater quality impact associated with the documented occurrences of groundwater contamination in the project region is therefore evaluated as Less than Significant at the project-specific level, and is also considered Less than Cumulatively Considerable. No further analysis is warranted, and no mitigation is required.<br><u>Potential to Create New Impact</u><br>Over the long term, the proposed repairs would provide a Benefit to surface and groundwater quality by restoring the integrity of the project Segments, reducing the need for ongoing maintenance and preventing leaks, spills, and overflows. The repairs would therefore have No Potential to independently create a new cumulative impact on water quality. No further analysis is warranted and no mitigation is required. |
| Transportation | City of Santa Clara | City of Santa Clara | Possibly. As discussed in the *Transportation* section of this checklist, the City is in the process of transitioning to use of the new VMT standard as a metric of significance, but it | ■ | ■ | <u>Contribution to Existing Impact</u><br>Construction of the proposed repairs would result in a minor, short-term increase in Citywide VMT due to contractor mobilization and demobilization, worker commute trips, and materials deliveries. Because the increase would be minor and of very short duration, it is considered Less than Significant at the |

| Resource | Area of Analysis | | Significant Existing Cumulative Impact? | Analysis Needed | | Discussion |
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| | Areas Included | Rationale | | Contribution to Existing Impact | Potential for New Impact | |
| | | | could be argued that to the extent that existing levels of development within the City have created areas of traffic congestion, the VMT generated by existing development represent a significant cumulative impact on transportation system function. | | | project-specific level and is also evaluated as Less than Cumulatively Considerable. No mitigation is required.<br>Once the proposed repairs are complete, normal operations and maintenance would resume, likely at a somewhat reduced level due to the improved condition of the project Segments and the long lifespan of the proposed repair techniques. There would be no long-term increase in VMT, and could be a slight long-term decrease due to the anticipated decrease in maintenance frequency. Thus, over the long term, the proposed repairs would have No Potential to contribute to any existing cumulative VMT-related impact. No mitigation is required.<br><u>Potential to Create New Impact</u><br>Because the proposed repairs would decrease the need for future maintenance/repair of the project Segments, they would reduce long-term maintenance-related VMT. The projects would therefore have No Potential to independently create a new cumulative impact related to VMT generation. No mitigation is required. |


Redtail Consulting
Environment & Community

**Figure 3. Groundwater and Soil Vapor Sampling – Classic Cleaners Site**
**Sanitary Sewer Condition Assessment Repairs**
City of Santa Clara

# Acronyms & Abbreviations

| | |
|---|---|
| AAQS | ambient air quality standard |
| ASTM | ASTM International (formerly American Society for Testing and Materials) |
| BAAQMD | Bay Area Air Quality Management District |
| BMPs | best management practices |
| CAAQS | California Ambient Air Quality Standards |
| CalEPA | California Environmental Protection Agency |
| CAL FIRE | California Department of Forestry and Fire Protection |
| Cal/OSHA | California Department of Industrial Relations, Division of Occupational Safety and Health |
| Caltrans | California Department of Transportation |
| CAPCOA | California Air Pollution Control Officers Association |
| CARB | California Air Resources Board |
| CARE | BAAWMD's Community At Risk Evaluation Program |
| CCTV | closed circuit television |
| CEQA | California Environmental Quality Act |
| $CH_4$ | methane |
| CHRIS/NWIC | California Historical Resources Information System, Northwest Information Center |
| CIPP | cured-in-place-pipe (pipe lining technique) |
| City | City of Santa Clara |
| CNEL | Community Noise Equivalent level |
| $CO_2$ | carbon dioxide |
| $CO_2e$ | $CO_2$ equivalents |
| Corps | U.S. Army Corps of Engineers |
| CRHR | California Register of Historical Resources |
| CSE | confined space entry |
| dB | decibel, decibels |
| DCA | dichloroethane |
| DCE | dichloroethene |
| DFW | California Department of Fish and Wildlife |
| District | Santa Clara Valley Water District |
| EPA | United States Environmental Protection Agency |
| ESL | Environmental Screening Level established by San Francisco Bay Regional Water Quality Control Board |
| FAA | Federal Aviation Administration |
| Facility | San José–Santa Clara Regional Wastewater Facility |
| FEMA | Federal Emergency Management Agency |
| FIRM | flood insurance rate map |
| FMMP | LRPD's Farmland Mapping and Monitoring Program |
| FTA | Federal Transit Administration |
| GHG | greenhouse gas |
| GWP | global warming potential |
| HPSR | Historic Properties Survey Report |
| I&I | inflow and infiltration |
| IPCC | Intergovernmental Panel on Climate Change |
| LOS | level of service |

| | |
|---|---|
| $L_{dn}$ | day-night noise level |
| lf | linear feet |
| LRPD | Land Resources Protection Division of state Department of Conservation |
| µg/l | micrograms per liter |
| µg/$m^3$ | micrograms per cubic meter |
| mg/kg | milligrams per kilogram |
| MRZ | Mineral Resource Zone |
| $N_2O$ | nitrous oxide |
| NAAQS | National Ambient Air Quality Standards |
| NAHC | Native American Heritage Commission |
| NHPA | National Historic Preservation Act |
| NASSCO | National Association of Sewer Service Companies |
| ND | non-detect (contaminant below analytical detection threshold) |
| $NO_x$ | oxides of nitrogen |
| NPDES | National Pollutant Discharge Elimination System |
| OEHHA | state Office of Environmental Health Hazard Assessment |
| OSHA | federal Occupational Safety and Health Administration |
| PACP | NASSCO's Pipeline Assessment Certification Program |
| PCBs | polychlorinated biphenyls |
| PCE | tetrachloroethylene |
| PEL | Permissible Exposure Limit established by Cal/OSHA |
| PG | California-licensed Professional Geologist |
| RCP | reinforced concrete pipe |
| ROG | reactive organic gas |
| RWQCB | San Francisco Bay Regional Water Quality Control Board |
| RWQCP | Regional Water Quality Control Plant |
| TCA | 1,1,1-trichloroethane |
| TDM | Transportation Demand Management |
| USFWS | U.S. Fish and Wildlife Service |
| SFBAAB | San Francisco Bay Area Air Basin |
| SIP | State Implementation Plan (air quality) |
| SCVWD | Santa Clara Valley Water District |
| SFPUC | San Francisco Public Utilities Commission |
| SJC | Norman Y. Mineta San Jose International Airport |
| SRA, LRA, FRA | State/Local/Federal Responsibility Area (wildland fire prevention/suppression responsibility) |
| $SO_2$ | sulfur dioxide |
| SSMH | sanitary sewer manhole |
| SWPPP | stormwater pollution prevention plan |
| VCP | vitrified clay pipe |
| VMT | vehicle miles traveled |
| VOC | volatile organic compound |
| VTA | Santa Clara Valley Transportation Authority |
| Williamson Act | California Land Conservation Act of 1965 |