



**City of  
Santa Clara**  
The Center of What's Possible

Sanitary Sewer Condition Assessment Repairs  
**Monitoring and Reporting Program**  
August 2019





Sanitary Sewer Condition Assessment Repairs  
**Monitoring and Reporting Program**  
*(including Avoidance and Minimization Measures and Mitigation Measures)*



Adopted: August 20, 2019

**Prepared for:**

City of Santa Clara Public Works Department  
1500 Warburton Avenue  
Santa Clara, CA 95050  
Contact: Vincent Luchessi, PE  
Phone: 408.615.3048

**Prepared by:**

Redtail Consulting  
115 Orchard Drive  
Fremont, CA 94536  
Contact: Anna Busing, PhD, PG  
Phone: 510.304.8363

# Contents

Introduction .....	i
Matrix: Summary of Adopted Measures .....	follows ii
<b>1. Advance Preparation.....</b>	<b>1</b>
<b>2. Avoidance and Minimization Measures.....</b>	<b>3</b>
Construction Window .....	3
Worker Awareness Training – Special-Status Species and Sensitive Habitats.....	4
Special-Status Species Sighting – Contractor Staff Response .....	6
Water Quality Protection .....	7
Dust Control .....	10
Toxic Air Contaminants Control.....	11
Hazardous Materials Response .....	12
Soil Vapor and Contaminated Soil/Groundwater Protection.....	13
<b>3. Mitigation Measures .....</b>	<b>17</b>
Bio-1. Rare Plant Surveys, Protection, and Restoration at Segment 35 .....	17
Bio-2. Protection of Nesting Birds (General) at All Segments .....	19
Bio-3. Protection of Nesting Tricolored Blackbird at Segment 35.....	20
Bio-4. Protection of Nesting California Black Rail and California Ridgway's Rail at Segment 35.....	22
Bio-5. Protection of Nesting Western Burrowing Owls at Segments 35 and 12 .....	23
Cul-1. Notice of Potential for Buried Cultural Resources in Construction Documents.....	24
Cul-2. Retention of On-Call Archaeologist .....	25
Cul-3. Worker Awareness Training for Cultural Resources.....	26
Cul-4. Evaluation and Treatment of Unanticipated Archaeological Discoveries.....	27
Cul-5. Procedures for Discovery of Human Remains.....	28
Geo-1. Worker Awareness Training for Paleontological Resources.....	29
Geo-2. Stop-Work, Evaluation, and Treatment in the Event of a Paleontological Find .....	30

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# Introduction

This document constitutes the Monitoring and Reporting Program adopted by the City of Santa Clara (City) pursuant to the California Environmental Quality Act (CEQA) for the following planned repairs to existing sewer infrastructure, under the Sanitary Sewer Condition Assessment Repairs Program.

- At **Segment 23** within Saratoga Avenue north of San Tomas Expressway: cured-in-place pipe (CIPP) lining to address a rupture in 10-inch-diameter VCP sewer pipe
- At **Segment 29** within the parking lot at 1400 Kifer Road: CIPP lining to repair corrosion of 24-inch-diameter VCP sewer pipe
- At **Segment 30** within the parking lot at 1390 Kifer Road: CIPP lining to repair corrosion of 24-inch-diameter VCP sewer pipe
- At **Segment 31** within parking lot at 350 Oakmead Parkway and adjacent vacant lot: CIPP lining to repair corrosion of 24-inch-diameter VCP sewer pipe
- At **Segment 35** extending beneath the Guadalupe River south of SR 237: infiltration grouting to repair leaking joint in 42-inch-diameter elliptical reinforced concrete (RCP) sewer pipe: CIPP lining to prevent inflow and infiltration
- At **all of the above Segments**: manhole rehabilitation/replacement as needed

The City circulated a CEQA Initial Study (IS) analyzing the environmental effects of conducting these repairs in June – July 2019 and adopted a Mitigated Negative Declaration (MND) for the projects on August 20, 2019. When a public agency adopts an MND, Section 15097 of the state's *CEQA Guidelines* requires that the agency also adopt a program for monitoring or reporting on the implementation of the measures it will require to mitigate potentially significant effects. This document, also adopted by the City on August 20, 2019, satisfies that requirement.

Because the projects were developed to incorporate a number of measures to avoid significant impacts (referred to as Avoidance and Minimization Measures or AMMs), this document lays out implementation, oversight, and reporting requirements for the AMMs as well as the additional Mitigation Measures identified and adopted through the CEQA review process.

In addition to this Introduction, this document contains the following components.

- A summary matrix listing all adopted measures (AMMs and mitigation),
- *Section 1*—identifying preparatory actions that will need to be completed in advance of commencing construction, in order to support efficient implementation of the AMMs and Mitigation Measures
- *Section 2*—detailing the AMMs “build into” the projects: actions required, timing, responsibility, and performance standard(s)

- *Section 3*—detailing the Mitigation Measures identified through CEQA review: actions required, timing, responsibility, and performance standard(s)

The following key abbreviations are used.

- Contractor – contractor retained to perform repairs
- City PM – City's Construction Project Manager
- Inspector – City's Inspector
- PW Director – City Public Works Director





Sanitary Sewer Condition Assessment Repairs

**Monitoring and Reporting Program – Summary of Adopted Measures**

Measure	See Page <sup>1</sup>	Timing	Advance Prep? <sup>2</sup>
<b>Avoidance and Minimization Measures</b>			
Construction Window	3	During project planning	No
Worker Awareness Training – Special-Status Species and Sensitive Habitats	4	Prior to construction	Yes
Special-Status Species Sighting – Contractor Staff Response	6	During construction	Yes
Water Quality Protection	7	During construction	Yes
Dust Control	10	During construction	Yes
Toxic Air Contaminants Control	11	During construction	Yes
Hazardous Materials Response	12	During construction	No
Soil Vapor and Contaminated Soil/ Groundwater Protection	13	During construction	Yes
<b>Mitigation Measures</b>			
Bio-1. Rare Plant Surveys, Protection, and Restoration at Segment 35	17	Prior to mobilization at Segment 35; following construction	Yes
Bio-2. Protection of Nesting Birds (General) at All Segments	19	Prior to construction; site checks during construction	Yes
Bio-3. Protection of Nesting Tricolored Blackbird at Segment 35	20	Prior to construction; site checks during construction	Yes
Bio-4. Protection of Nesting California Black Rail and California Ridgway's Rail at Segment 35	22	Prior to construction; site checks during construction	Yes
Bio-5. Protection of Nesting Western Burrowing Owls at Segments 35 and 12	23	Prior to construction; site checks during construction	Yes
Cul-1. Notice of Potential for Buried Cultural Resources in Construction Documents	24	<i>This measure has been implemented</i>	N/A
Cul-2. Retention of On-Call Archaeologist	25	Before construction begins	Yes
Cul-3. Worker Awareness Training for Cultural Resources	26	Prior to construction	Yes

<sup>1</sup> For details (actions required, implementation/oversight responsibility, performance standards), see referenced pages.

<sup>2</sup> For advance preparation needed to efficiently implement AMMs and Mitigation Measures, see Section 1.

Measure	See Page <sup>3</sup>	Timing	Advance Prep? <sup>4</sup>
Cul-4. Evaluation and Treatment of Unanticipated Archaeological Discoveries	27	During construction	Yes
Cul-5. Procedures for Discovery of Human Remains	28	During construction	Yes
Geo-1. Worker Awareness Training for Paleontological Resources	29	Prior to construction	Yes
Geo-2. Stop-Work, Evaluation, and Treatment in the Event of a Paleontological Find	30	During construction	Yes

<sup>3</sup> For details (actions required, implementation/oversight responsibility, performance standards), see referenced pages.

<sup>4</sup> For advance preparation needed to efficiently implement AMMs and Mitigation Measures, see Section 1.

## Advance Preparation

The following advance steps will be needed to implement the adopted AMMs and Mitigation Measures.

- Construction scheduling to avoid nesting season, if feasible (see *Construction Window*, page 3)
- Retention of qualified staff to assist with implementation:
  - City's Biologist (see *Worker Awareness Training – Special-Status Species and Sensitive Habitats*, page 4; also Mitigation Measures Bio-1 through Bio-5, pages 17 ff.)
  - City's Archaeologist (see Mitigation Measure Cul-2, page 25)
  - City's Paleontologist (see Mitigation Measure Geo-1, page 29)
- Assessment of need for interpreter/translator services for Worker Awareness Training; retention of interpreter/translator if needed (see *Worker Awareness Training – Special-Status Species and Sensitive Habitats*, page 4)
- Review of contractor submittals
  - Stockpile control (see *Water Quality Protection*, page 7)
  - Erosion control (see *Water Quality Protection*, page 7)
  - Resin and curing methods (see *Water Quality Protection*, page 7)
  - Grout (see *Water Quality Protection*, page 7)
  - Laydown/staging (see *Water Quality Protection*, page 7)
  - Project signage (see *Dust Control*, page 10)
  - CIPP notice (see *Toxic Air Contaminants Control*, page 11)
  - Health and Safety Plan (HASP) (see *Soil Vapor and Contaminated Soil/Groundwater Protection*, page 13)
- Review of City's Biologist submittals
  - Special-status species Alert Sheet and Contractor staff acknowledgment sheet (see *Worker Awareness Training – Special-Status Species and Sensitive Habitats*, page 4)

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## Avoidance and Minimization Measures

This section details the AMMs that were “built into” the project to reduce impacts. Timing, responsibility, and the performance standard(s) used to assess for accurate implementation are laid out in the matrix that follows each measure, along with a space for notes confirming execution.

### 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<sup>1</sup>

If construction cannot be timed as stipulated above, additional measures will be required to avoid impacts on nesting birds and special-status species (see Section 3 of this document for *Mitigation Measures*).

<b>Timing:</b>	During project planning
<b>Responsibility:</b>	Implementation: City PM Oversight: PW Director
<b>Performance Standard:</b>	Construction takes place between September 1 and January 31 (outside general bird nesting season and relevant special-status bird nesting periods), or Mitigation Measures Bio-2, Bio-4, Bio-5, and if needed, Bio-3 are implemented

**Confirmation:**

<sup>1</sup> The nesting periods for Tricolored Blackbird and California Black Rail/California Ridgway's Rail are March 15 – July 31 and February 1 – August 31 respectively. The salmonid run period in the Guadalupe River begins on October 15. Timing construction at Segment 35 between September 1 and October 14 avoids all 3 of these windows.

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

Prior to groundbreaking [*i.e.*, *start of construction*] 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.

### Special-Status Species Included in Worker Awareness Training, by Segment

Segment	Species Included
29, 30, 31	<ul style="list-style-type: none"> <li>• Nesting birds in general to be included if construction takes place between February 1 and August 31</li> <li>• If construction takes place between September 1 and January 31 (outside the nesting period), worker awareness training at Segments 29 – 31 only needs to cover sensitive habitats on and near the work area (Calabazas Creek corridor) and water quality protection requirements</li> </ul>
35	<p><b>Fishes</b>  White sturgeon (<i>Acipenser transmontanus</i>)  Steelhead (<i>Oncorhynchus mykiss irideus</i>)  Chinook salmon (<i>O. tshawytscha</i>)</p> <p><b>Amphibians and Reptiles</b>  Southwestern pond turtle (<i>Actinemys pallida [marmorata]</i>)  California red-legged frog (<i>Rana draytonii</i>)</p> <p><b>Birds</b>  Tricolored Blackbird (<i>Agelaius tricolor</i>)  Western Burrowing Owl (<i>Athene cunicularia hypugea</i>)  Great Blue Heron (<i>Ardea herodias</i>)  Saltmarsh Common Yellowthroat (<i>Geothlypis trichas sinuosa</i>)  California Black Rail (<i>Laterallus jamaicensis coturniculus</i>)  Alameda Song Sparrow (<i>Melospiza melodia pusillula</i>)  California Ridgway's Rail (<i>Rallus obsoletus obsoletus</i>)  Nesting birds in general to be included if construction takes place between February 1 and August 31</p> <p><b>Mammals</b>  Pallid bat (<i>Antrozous pallidus</i>)  Western red bat (<i>Lasiurus blossevillii</i>)  Salt-marsh harvest mouse (<i>Reithrodontomys raviventris</i>)  Salt-marsh wandering shrew (<i>Sorex vagrans halicoetes</i>)</p>
12	<p><b>Amphibians and Reptiles</b>  Southwestern pond turtle (<i>Actinemys pallida [marmorata]</i>)</p> <p><b>Birds</b>  Western Burrowing Owl (<i>Athene cunicularia hypugea</i>)  Nesting birds in general to be included if construction takes place between February 1 and August 31</p>

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).

<b>Timing:</b>	Before construction begins at Segments 29 – 31, 35, and 12
<b>Responsibility:</b>	<p><b>Implementation:</b></p> <ul style="list-style-type: none"> <li>• City PM – retains and oversees City's Biologist, determines whether training needs to be bilingual; retains interpreter/translator if needed</li> <li>• City's Biologist – delivers training, including development of alert sheet; documents worker attendance and provides signed attendance sheet(s) to City PM</li> <li>• Contractor – identifies personnel and sends them to training</li> </ul> <p><b>Oversight:</b> PW Director</p>
<b>Performance Standard:</b>	<ul style="list-style-type: none"> <li>• Training is conducted by properly qualified staff</li> <li>• Information on correct species is provided at each Segment</li> <li>• Alert sheet is provided</li> <li>• Worker attendance is documented</li> </ul>

**Confirmation:**

## 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 CNDDDB. The City's Biologist will be responsible for making the report

<b>Timing:</b>	During construction
<b>Responsibility:</b>	Implementation: <ul style="list-style-type: none"><li>- Contractor implements avoidance and notifies City's Biologist</li><li>- City's Biologist advises, may conduct site visit(s), notifies/consults with DFW/USFWS if needed; reports confirmed sightings to DFW; notifies City PM of response and outcomes</li></ul> Oversight: City PM
<b>Performance Standard:</b>	<ul style="list-style-type: none"><li>• Avoidance and notification takes place as specified</li><li>• If needed, City's biologist responds to site</li><li>• If needed, City's biologist coordinates with DFW and/or USFWS staff and implements their recommendations</li><li>• Confirmed sightings are reported to DFW</li></ul>

**Confirmation:**



## 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 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 avoidance 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
- 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 the 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

<b>Timing:</b>	During construction
<b>Responsibility:</b>	Implementation: <ul style="list-style-type: none"> <li>- City PM retains City's Biologist, reviews contractor submittals for erosion control; notifies RWQCB in event of spill</li> <li>- City's Biologist delineates exclusion areas, conducts daily site visits to verify measures in place, coordinates with DFW/USFWS if needed,</li> </ul> <p style="text-align: right;"><i>Continued on next page.</i></p>

<b>Responsibility, cont'd:</b>	<p>removes signage/exclusion measures when construction is complete</p> <ul style="list-style-type: none"> <li>- Contractor implements use of specified resin and grout, erosion control, stockpile limits, other construction-period requirements; provides spill containment measures in advance; notifies City of spills, if any; addresses spills promptly</li> </ul> <p>Oversight:</p> <ul style="list-style-type: none"> <li>- City PM (City's Biologist)</li> <li>- Inspector (Contractor)</li> <li>- PW Director (overall execution)</li> </ul>
<b>Performance Standard:</b>	<ul style="list-style-type: none"> <li>• Avoidance buffers successfully implanted; sensitive habitat avoided</li> <li>• Resins and grout conform to specifications</li> <li>• Curing water is properly discharged</li> <li>• Runoff controls conform to specifications and are properly installed</li> <li>• Repaving/revegetation occurs promptly</li> <li>• Revegetation seed mix conforms to specifications</li> <li>• Stockpiles, if any, are properly sited and managed</li> <li>• Demolition debris, if any, is properly managed and promptly disposed</li> <li>• Equipment is inspected and maintained for leaks</li> <li>• Staging, fueling, lubrication, and maintenance occur in appropriate locations with containment where required</li> <li>• CIPP liner and grout preparation occurs in paved/surfaced/upland areas</li> <li>• Spill containment measures are in place in advance</li> <li>• Spills, if any, are promptly contained and properly reported</li> <li>• Trash is contained onsite and promptly disposed</li> <li>• Signage/exclusion measures removed</li> </ul>

**Confirmation:**

## Dust Control

To reduce dust generation, the following measures will be required when excavation or ground disturbance is necessary.<sup>2</sup> 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.

<b>Timing:</b>	During construction
<b>Responsibility:</b>	Implementation: Contractor Oversight: Inspector, City PM
<b>Performance Standard:</b>	Measures implemented as specified, as verified by City Inspector

**Confirmation:**

<sup>2</sup> 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).

## Toxic Air Contaminants Control

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.

<b>Timing:</b>	During construction
<b>Responsibility:</b>	Implementation: Contractor Oversight: Inspector, City PM
<b>Performance Standard:</b>	<ul style="list-style-type: none"><li>• Noticing occurs as specified</li><li>• Measures implemented as specified, verified by City Inspector</li></ul>

**Confirmation:**

## Hazardous Materials Response

Work at all project Segments will be subject to the following requirement. The project Contract Documents will stipulate contractor responsibilities in implementing this measure.

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.

<b>Timing:</b>	During construction
<b>Responsibility:</b>	<p>Implementation:</p> <ul style="list-style-type: none"><li>- Contractor implements stop work/avoidance and City notification</li><li>- City PM retains qualified staff for follow-up in the event of a discovery</li></ul> <p>Oversight:</p> <ul style="list-style-type: none"><li>- Inspector (Contractor performance)</li><li>- City PM (follow-up investigation if needed)</li><li>- PW Director (overall execution)</li></ul>
<b>Performance Standard:</b>	<ul style="list-style-type: none"><li>• Stop work and notification occur as specified</li><li>• Responding staff meet ASTM E1527-13 requirements for Environmental Professional</li><li>• Follow-up recommendations conform to relevant ASTM or other appropriate guidance</li><li>• Follow-up investigations and any needed remediation and disposal occur per recommendations of qualified staff and consistent with applicable regulations</li></ul>

**Confirmation:**

## Soil Vapor and Contaminated Soil/Groundwater Protection

Work at Segments 23 and 29 – 31 will also be subject to the following additional requirements, which will also be stipulated in the project Contract Documents.

- 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.<sup>3</sup> The HASP will be subject to City review and approval, and at a minimum will include the following requirements.
- 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](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

<sup>3</sup> 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 of the project IS/MND).

(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 trench 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.

<b>Timing:</b>	During construction
<b>Responsibility:</b>	<p>Implementation:</p> <ul style="list-style-type: none"> <li>- Contractor prepares HASP, provides/installs fencing for public safety, provides HAZWOPER-certified staff, implements PPEs and best practices, implements stockpile requirements, conducts air quality monitoring and required follow-up at Segment 30, ensures appropriate testing and transport/disposal of excavated materials and discharge of dewatering, implements trench covering if needed</li> <li>- City PM reviews HASP submittal, ensures testing as needed, oversees Contractor performance, reports to RWQCB</li> </ul> <p>Oversight:</p> <ul style="list-style-type: none"> <li>- Inspector (Contractor performance)</li> <li>- City PM (overall execution)</li> </ul>
<b>Performance Standard:</b>	<ul style="list-style-type: none"> <li>• HASP submitted and approved prior to start of construction</li> <li>• HASP contains information stipulated in measure</li> <li>• Contractor staff are properly trained</li> <li>• PPEs and best practices are implemented</li> <li>• Public safety precautions are installed</li> <li>• Excavated materials are properly stockpiled and tested</li> <li>• Testing protocol follows stipulated requirements</li> <li>• Materials with contaminant levels in excess of applicable limits are properly handled and disposed</li> <li>• Excavations at Segment 30 are properly covered if they remain open over night</li> </ul> <p style="text-align: right;"><i>Continued on next page.</i></p>



<b>Performance Standard, cont'd:</b>	<ul style="list-style-type: none"><li>• Air quality monitoring is conducted at Segment 30 and PPEs are implemented if required</li><li>• Dewatering is properly discharged and is treated prior to discharge if appropriate</li><li>• Results are reported to RWQCB</li></ul>
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**Confirmation:**

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# 3

## Mitigation Measures

This section details the Mitigation Measures identified during the CEQA review process and adopted via the MND on August 20, 2019. Timing, responsibility, and the performance standard(s) used to assess for accurate implementation are laid out in a matrix following each measure, along with a space for notes confirming execution.

### 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 supervision 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 reseeded, 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.

<b>Timing:</b>	Prior to, during, and following construction
<b>Responsibility:</b>	<p>Implementation:</p> <ul style="list-style-type: none"> <li>- City PM retains and oversees City's Biologist</li> <li>- City's Biologist conducts surveys, delineates buffers if needed, develops seed mix recommendations if needed, conducts follow-up blooming period survey if needed, conducts reseeded and additional follow-up if needed</li> </ul> <p>Oversight: PW Director (overall execution)</p> <p><i>Continued on next page.</i></p>

<b>Performance Standard:</b>	<ul style="list-style-type: none"><li>• Surveys are conducted prior to groundbreaking; if surveys cannot be carried out during blooming period due to construction timing, species are presumed present and included in revegetation seed mix, with follow-up conducted per the measure</li><li>• Buffers are installed if warranted</li><li>• Revegetation occurs if plants cannot be protected in place</li><li>• Revegetation occurs promptly, using approved seed mix</li><li>• Follow-up survey conducted in next subsequent blooming period</li><li>• Note:<ul style="list-style-type: none"><li>- If next blooming period survey identifies that plants have not re-established, disturbed area is reseeded with the failed species</li><li>- Additional follow-up survey is conducted in next subsequent blooming period</li><li>- Reseeding and follow-up surveys continue until City's Biologist confirms species reestablished</li></ul></li><li>• Affected species are successfully re-established in disturbed area</li></ul>
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**Confirmation:**

## 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.

<b>Timing:</b>	Prior to and during construction
<b>Responsibility:</b>	<p>Implementation:</p> <ul style="list-style-type: none"> <li>- City PM retains Biologist</li> <li>- Biologist conducts surveys, establishes buffers if needed, conducts site checks to verify nesting status, communicates status to City, removes buffers (if any)</li> </ul> <p>Oversight:</p> <ul style="list-style-type: none"> <li>- City PM (Biologist)</li> <li>- Inspector (Contractor performance)</li> <li>- PW Director (overall execution)</li> </ul>
<b>Performance Standard:</b>	<ul style="list-style-type: none"> <li>• Surveys are conducted prior to construction (within 2 weeks of Contractor mobilization)</li> <li>• Buffers are installed if warranted</li> <li>• Buffer areas are avoided</li> <li>• Biologist site checks are conducted until nesting success or nest abandonment is verified, or until construction is complete, whichever comes first</li> <li>• Buffers are removed by biologist following nesting completion or Contractor demobilization, whichever comes first</li> </ul>

**Confirmation:**

### 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 qualified 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 CNDDDB, 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.

<b>Timing:</b>	Prior to and during construction
<b>Responsibility:</b>	<p>Implementation:</p> <ul style="list-style-type: none"> <li>- City PM retains Biologist</li> <li>- City's Biologist evaluates recent nesting history, conducts preconstruction survey, establishes buffer if needed, conducts site check(s) to verify nesting status, adjusts buffer if needed, communicates status to City, removes buffers</li> </ul> <p>Oversight:</p> <ul style="list-style-type: none"> <li>- City PM (City's Biologist)</li> <li>- Inspector (Contractor performance)</li> <li>- PW Director (overall execution)</li> </ul>
<b>Performance Standard:</b>	<ul style="list-style-type: none"> <li>• 5-year prior nesting history is evaluated</li> <li>• If nesting history inconclusive, survey is conducted prior to groundbreaking</li> <li>• Buffers are installed if warranted</li> <li>• Buffer areas are avoided</li> <li>• Biologist site checks are conducted to verify avoidance and monitor nesting progress</li> <li>• Construction is suspended if directed by Biologist</li> <li>• Construction resumes following end of breeding season or when colony abandons site, as verified by Biologist</li> <li>• Buffer is removed by biologist following nesting completion or Contractor demobilization, whichever comes first</li> </ul>

**Confirmation:**

## 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.

<b>Timing:</b>	Prior to and during construction
<b>Responsibility:</b>	<p>Implementation:</p> <ul style="list-style-type: none"> <li>- City PM retains City's Biologist</li> <li>- Biologist conducts surveys, establishes buffer if needed, conducts site check(s) to verify nesting status, communicates status to City, removes buffer</li> </ul> <p>Oversight:</p> <ul style="list-style-type: none"> <li>- City PM (City's Biologist)</li> <li>- Inspector (Contractor performance)</li> <li>- PW Director (overall execution)</li> </ul>
<b>Performance Standard:</b>	<ul style="list-style-type: none"> <li>• Protocol-level surveys conducted prior to construction</li> <li>• Surveys for California Black Rail conducted by DFW-approved biologist</li> <li>• Surveys for California Ridgway's Rail conducted by USFWS- and DFW-approved biologist</li> <li>• Buffers are installed if warranted</li> <li>• Buffer areas are avoided</li> <li>• Biologist site checks are conducted to verify avoidance and monitor nesting progress</li> <li>• Buffer remains in place until completion of nesting (as verified by Biologist) or end of nesting season</li> <li>• Buffers are removed biologist following nesting completion or Contractor demobilization, whichever comes first</li> </ul>

**Confirmation:**



## 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.

<b>Timing:</b>	Prior to and during construction
<b>Responsibility:</b>	<p>Implementation:</p> <ul style="list-style-type: none"> <li>- City PM retains Biologist</li> <li>- Biologist conducts surveys, establishes buffer if needed, conducts site check(s) to verify nesting status, communicates status to City, removes buffer(s)</li> </ul> <p>Oversight:</p> <ul style="list-style-type: none"> <li>- City PM (Biologist)</li> <li>- Inspector (Contractor performance)</li> <li>- PW Director (overall execution)</li> </ul>
<b>Performance Standard:</b>	<ul style="list-style-type: none"> <li>• Survey(s) conducted prior to groundbreaking</li> <li>• Locations documented if owls are present</li> <li>• Buffers are installed if warranted</li> <li>• Buffer areas are avoided</li> <li>• Biologist site checks are conducted to verify avoidance and monitor nesting progress</li> <li>• Biologist site checks are conducted until nesting success or nest abandonment is verified, or until construction is complete, whichever comes first</li> <li>• Buffer(s) are removed by biologist following nesting completion or Contractor demobilization, whichever comes first</li> </ul>

**Confirmation:**

## Cul-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.

<b>Timing:</b>	During design phase
<b>Responsibility:</b>	Implementation: - Design consultant Oversight: - City PM
<b>Performance Standard:</b>	<ul style="list-style-type: none"><li>• Information included in PS&amp;E package as required</li></ul>

**Confirmation:** *All mitigation measures were included in an Appendix to project Specifications.*

## Cul-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.

<b>Timing:</b>	Prior to construction
<b>Responsibility:</b>	Implementation: City PM Oversight: PW Director
<b>Performance Standard:</b>	<ul style="list-style-type: none"><li>• Archaeologist is retained before construction begins</li><li>• Note: because of federal nexus at Segment 35, archaeologist must meet Secretary of the Interior criteria</li></ul>

**Confirmation:**

### Cul-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 Cul-1 [sic]) 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.

<b>Timing:</b>	Prior to construction
<b>Responsibility:</b>	Implementation: <ul style="list-style-type: none"> <li>- City PM retains City's Archaeologist</li> <li>- City's Archaeologist conducts training</li> <li>- Contractor identifies personnel and sends them to training</li> </ul> Oversight: PW Director
<b>Performance Standard:</b>	<ul style="list-style-type: none"> <li>• Training is properly conducted and documented</li> <li>• Staff delivering training meet qualifications in Mitigation Measure Cul-2</li> </ul>

**Confirmation:**

## 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.

<b>Timing:</b>	During construction
<b>Responsibility:</b>	<p>Implementation:</p> <ul style="list-style-type: none"> <li>- Contractor implements stop work, protection, and avoidance; reports find to City</li> <li>- City's Archaeologist engages Native American monitor, responds to find, evaluates find; if needed, recommends treatment; if needed, coordinates with U.S. Army Corps of Engineers staff; if needed, implements treatment and prepares and files Monitoring Closure Report</li> </ul> <p>Oversight: City PM</p>
<b>Performance Standard:</b>	<ul style="list-style-type: none"> <li>• In the event of a find, resources are protected, evaluated, and treated if appropriate</li> <li>• Treatment conforms to CEQA and, if needed (for Segment 35 only), U.S. Army Corps of Engineers requirements</li> <li>• Treatment is documented in Monitoring Closure Report</li> </ul>

**Confirmation:**

## 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.

<b>Timing:</b>	During construction
<b>Responsibility:</b>	<p>Implementation:</p> <ul style="list-style-type: none"> <li>- Contractor implements stop work, protection, and avoidance; reports find to City</li> <li>- City PM notifies County Coroner and proceeds according to Coroner direction; if reinterment of remains on City property is necessary, coordinates location and facilitates reburial</li> </ul> <p>Oversight: PW Director</p>
<b>Performance Standard:</b>	<ul style="list-style-type: none"> <li>• California state legal requirements for treatment of human remains are satisfied</li> <li>• If Native American remains are encountered, either: <ul style="list-style-type: none"> <li>- recommendations of Most Likely Descendant for disposition of remains are implemented, <u>or</u></li> <li>- in the absence of recommendations from Most Likely Descendant, remains are respectfully reinterred at a City-owned location where they will not be subject to further disturbance</li> </ul> </li> </ul>

**Confirmation:**

## 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), 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.

<b>Timing:</b>	Prior to construction
<b>Responsibility:</b>	Implementation: <ul style="list-style-type: none"> <li>- City PM retains City's Paleontologist</li> <li>- City's Paleontologist conducts training, including collection of worker signatures</li> <li>- Contractor identifies personnel and sends them to training</li> </ul> Oversight: PW Director
<b>Performance Standard:</b>	<ul style="list-style-type: none"> <li>• Training is properly conducted and documented</li> <li>• Staff developing/delivering training meet qualifications in Mitigation Measure Geo-1</li> </ul>

**Confirmation:**

## 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.

<b>Timing:</b>	During construction
<b>Responsibility:</b>	<p>Implementation:</p> <ul style="list-style-type: none"> <li>– Contractor implements stop work, protection, and avoidance; reports find to City</li> <li>– City's Paleontologist responds to find, evaluates find; if needed, recommends treatment; if needed, implements treatment</li> </ul> <p>Oversight: City PM</p>
<b>Performance Standard:</b>	<ul style="list-style-type: none"> <li>• In the event of a find, resources are protected, evaluated, and, if warranted, treated (recovered, curated, reported)</li> <li>• Staff evaluating find and recommending/implementing treatment meet qualifications in Mitigation Measure Geo-2</li> </ul>

**Confirmation:**



