Notice of Intent to Adopt a Mitigated Negative Declaration

To: **Public Agencies, Interested Parties, and Sonoma County Clerk**

Project Title: **Los Alamos Trunk Sewer Replacement Project**

Lead Agency: **City of Santa Rosa, Transportation and Public Works Department**
69 Stony Circle, Santa Rosa, CA 95401

Contact: **Andy Wilt**
Tel: (707) 543-4519, E: AWilt@srcity.org

Review Period: **February 28, 2018, to March 30, 2018**

In accordance with the Sate CEQA Guidelines, the City of Santa Rosa has prepared this notice to inform agencies and interested parties that it is releasing an Initial Study and Proposed Mitigated Negative Declaration (IS/MND) for the City's Los Alamos Trunk Sewer Replacement Project.

Project Description and Location

The City of Santa Rosa is proposing to replace the existing Los Alamos trunk sewer, identified as essential to meeting future City demands by the 2014 Master Sewer Plan Update. The Los Alamos trunk sewer will be reconstructed within existing public right of way roads or pathways. Portions of the new trunk sewer will be mostly realigned into the public right of way where the existing trunk sewer is currently inaccessible for maintenance on private property. Other portions of the sewer will remain on private property but within City easements or easements to be obtained by the City.

Providing Comments

A 30-day public review period will extend from February 28, 2018, to March 30, 2018. The IS/MND will be available for public review online at http://cippublic.srcity.org/CIPList.html under Project CIP Number 01903 and at the following locations:

- Transportation and Public Works, 69 Stony Circle, Santa Rosa

Agencies and interested parties may provide written comments on the IS/MND for the project. Comments may be directed to the attention of Andy Wilt, 69 Stony Circle, Santa Rosa, CA 95401, AWilt@srcity.org.

After the review period closes, the Santa Rosa Board of Public Utilities will consider a recommendation to adopt the IS/MND for the project during a regularly scheduled public meeting. We encourage you to check the Board of Public Utilities webpage to confirm the date and time of the Board of Public Utilities meeting at the following website address: https://srcity.org/686/Board-of-Public-Utilities

MITIGATED NEGATIVE DECLARATION

PROJECT NAME: **LOS ALAMOS TRUNK SEWER REPLACEMENT PROJECT**

Date of Preparation: February 28, 2018

Lead Agency: City of Santa Rosa, Transportation and Public Works Department

Project Description: The City of Santa Rosa is proposing to replace the existing Los Alamos trunk sewer, identified as essential to meeting future City demands by the 2014 Master Sewer Plan Update. The Los Alamos trunk sewer will be reconstructed mostly within existing public right of way roads or pathways. Portions of the new trunk sewer will be realigned into the public right of way where the existing trunk sewer is currently inaccessible for maintenance on private property. Other portions of the sewer will remain on private property but within City easements or easements to be obtained by the City.

Project Location: Various, see location map

General Plan: Varies

Zoning: Varies

Findings:

1. With the incorporation of mitigation measures, this project does not have the potential to degrade the quality of the environment, nor to curtail the diversity of the environment.
2. This project will not have a detrimental effect upon either short-term or long-term environmental goals.
3. This project will not have impacts that are cumulatively considerable.
4. This project will not have environmental impacts that will cause substantial adverse effects on human beings, either directly or indirectly.

○ The proposed project could not have a significant effect on the environment and a **Negative Declaration** will be prepared.

● Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **Mitigated Negative Declaration** will be prepared.

Public Review Period: February 28, 2018, to March 30, 2018

Mitigation Measures: See Initial Study

Where to Submit Comments: City of Santa Rosa
Transportation and Public Works Department
69 Stony Circle
Santa Rosa, CA 95401

Contact Person: Andy Wilt
(707) 543-4519
AWilt@srcity.org

Attachment: Initial Study

LOS ALAMOS TRUNK SEWER REPLACEMENT PROJECT

Santa Rosa, California

Initial Study

February 28, 2018

Prepared for:
City of Santa Rosa
Transportation and Public Works Department
69 Stony Circle
Santa Rosa, CA 95401

Prepared by:
Brelje & Race Engineers
475 Aviation Blvd., Suite 120
Santa Rosa CA 95403
707/576-1322

Contents

FIGURES

APPENDICES

Appendix A: Mitigation Monitoring & Reporting Plan

PROJECT DATA

Project Title:	Los Alamos Sewer Relocation Project
Lead Agency:	City of Santa Rosa Transportation and Public Works Department 69 Stony Circle Santa Rosa, CA 95401
Contact Person:	Andy Wilt (707) 543-4519 AWilt@srcity.org
Project Location:	See project location map
General Plan Designation:	Varies, generally in public right of way
Zoning:	Varies, generally in public right of way

INTRODUCTION

The purpose of this Initial Study is to provide the Lead Agency, the City of Santa Rosa Transportation and Public Works Department (City), with an assessment of relevant environmental information associated with implementation of the proposed project in order to determine whether a Negative Declaration, Mitigated Negative Declaration or an Environmental Impact Report (EIR) will be required for the Los Alamos Trunk Sewer Project. This environmental evaluation is intended to fully inform the Lead Agency, other interested agencies and the public of the proposed plan and associated environmental impacts. This Initial Study has been prepared in conformance with the requirements of §15063 of the California Environmental Quality Act (CEQA) Guidelines.

If the Lead Agency determines that there is no substantial evidence that the project may cause a significant effect on the environment, then a Negative Declaration may be prepared. A Negative Declaration may include conditions of approval to avoid or reduce potential impacts. However, if the Initial Study determines that the project may cause an unavoidable or unknown significant effect on the environment, the Lead Agency must prepare an EIR.

The Initial Study process also enables the Lead Agency to modify a project, mitigating adverse effects before an EIR is prepared, thereby enabling the project to move forward under a Mitigated Negative Declaration. This facilitates the environmental evaluation portion of the project development process and eliminates unnecessary EIRs.

PROJECT SETTING

The project is generally located in the developed areas of Rincon Valley and Southeast Santa Rosa, running parallel to and between Highway 12 and Montgomery Drive. Some portions of the project occur in less developed areas of Rincon Valley. The City's 2016 population was approximately 175,000.

The project extends from Streamside Drive approximately 16,000 feet to terminate at the existing Oakmont Trunk Sewer located near the southerly bank of Oakmont Creek adjacent to Channel Drive. The trunk replacement occurs in public right of way (roadways and the Santa Rosa Creek Trail) and within private property where easements exist or will be obtained by the City. The project is regionally located on Figure 1. The overall project is shown on Figure 2.

POLICY SETTING

Development in the project area and Santa Rosa in general is guided by the City's General Plan[1] and zoning ordinance. The City's current General Plan anticipates and plans for growth until 2035. The General Plan includes infrastructure planning to accommodate orderly development associated with growth projections to 2035, including water and wastewater services. The General Plan has projected that development within the City's urban growth boundary (UGB) is expected to reach a total population of 237,000 by 2035 and approximately 25,225 new housing units will be developed within the UGB.

[1] Santa Rosa General Plan 2035. City of Santa Rosa. November 3, 2009.

The October 2014 Sanitary Sewer Master Plan Update (MPU) [2] guides the City's wastewater infrastructure planning and is based on approximately 50,000 additional people within the City's urban growth boundary by 2035.

PROJECT PURPOSE

The City has identified portions of the Los Alamos Trunk Sewer that are undersized to serve future growth anticipated by the City's General Plan within portions of Rincon Valley and Southeast Santa Rosa. According to the MPU, large portions of the Los Alamos Trunk Sewer are recommended to be upsized in order to maintain the City's level of service for the 10-year, 12-hour storm event for growth projections out to 2035. The MPU identified the Los Alamos trunk sewer project as the number one high priority project needed to maintain the City's desired service levels. The City has begun preliminary design for the Los Alamos Trunk Sewer replacement to accommodate wastewater associated with growth planned to 2035 as well as water that infiltrates the collection system (commonly called inflow and infiltration or I&I) through joints and manholes. The City has determined that a new, larger trunk sewer in this area is required based on modeling conducted by Arcadis in the MPU.

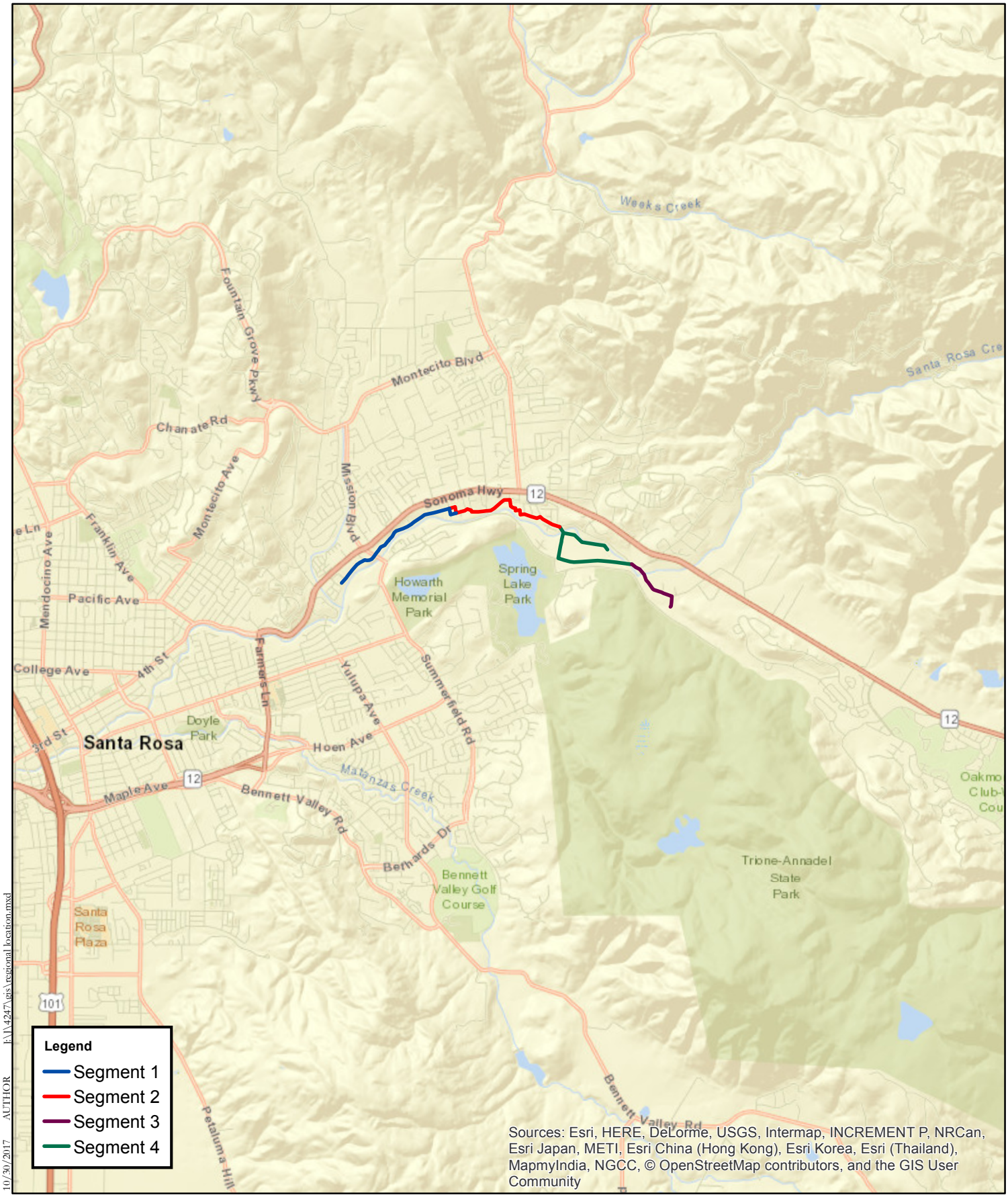
PROJECT DESCRIPTION

In general, the Los Alamos trunk sewer will be reconstructed within existing public right of way roads or pathways. Portions of the new trunk sewer will be realigned into the public right of way where the existing trunk sewer is currently inaccessible for maintenance on private property. Other portions of the sewer will remain on private property but within City easements or easements to be obtained by the City. All portions of the new sewer main that will be on private property will be within new 20-foot easements to be acquired by the City and 30-foot temporary construction easements for construction. Existing sewer easements shall be abandoned if no active facilities will remain. The existing sewer will be abandoned in place, per City standards.

The project will be implemented in four segments. Because the replacement trunk sewer main is a gravity main, elevations of all segments must continuously allow wastewater to flow downgradient to the point where the replacement trunk sewer interties with the existing trunk sewer at the westernmost terminus of Segment 1 at Streamside Drive. All segments will include manholes and lateral connection to connect existing collector sewers and existing service connections (residential and commercial customers) to the new trunk sewer alignment. The four segments are described below:

- Segment 1: 24-inch trunk sewer would be constructed extending from Streamside Drive easterly approximately 5,500 feet, terminating at Elaine Drive. The trunk sewer would be constructed from approximately the point where Streamside Drive would intersect the Santa Rosa Creek Trail easterly for approximately 700 feet within and adjacent to the Santa Rosa Creek Trail. The replacement trunk sewer would then move off of the trail and into the existing trunk sewer's easement across private property for approximately 700 feet to Mission Circle. The replacement main would follow Mission Circle and across Mission Boulevard to Quigg Drive and along Quigg Drive to its terminus. The replacement main would then generally follow the existing trunk sewer alignment across private property for approximately 1,600 feet to Elaine Drive. Segment 1 is shown on Figure 3.

[2] Sanitary Sewer System Master Plan Update, City of Santa Rosa. Arcadis. October 2014.



10/30/2017 AUTHOR E:\1\4247\gis\regional location.mxd

NORTH

0 0.25 0.5 1 Miles

FIGURE 1

REGIONAL LOCATION MAP

CITY OF SANTA ROSA

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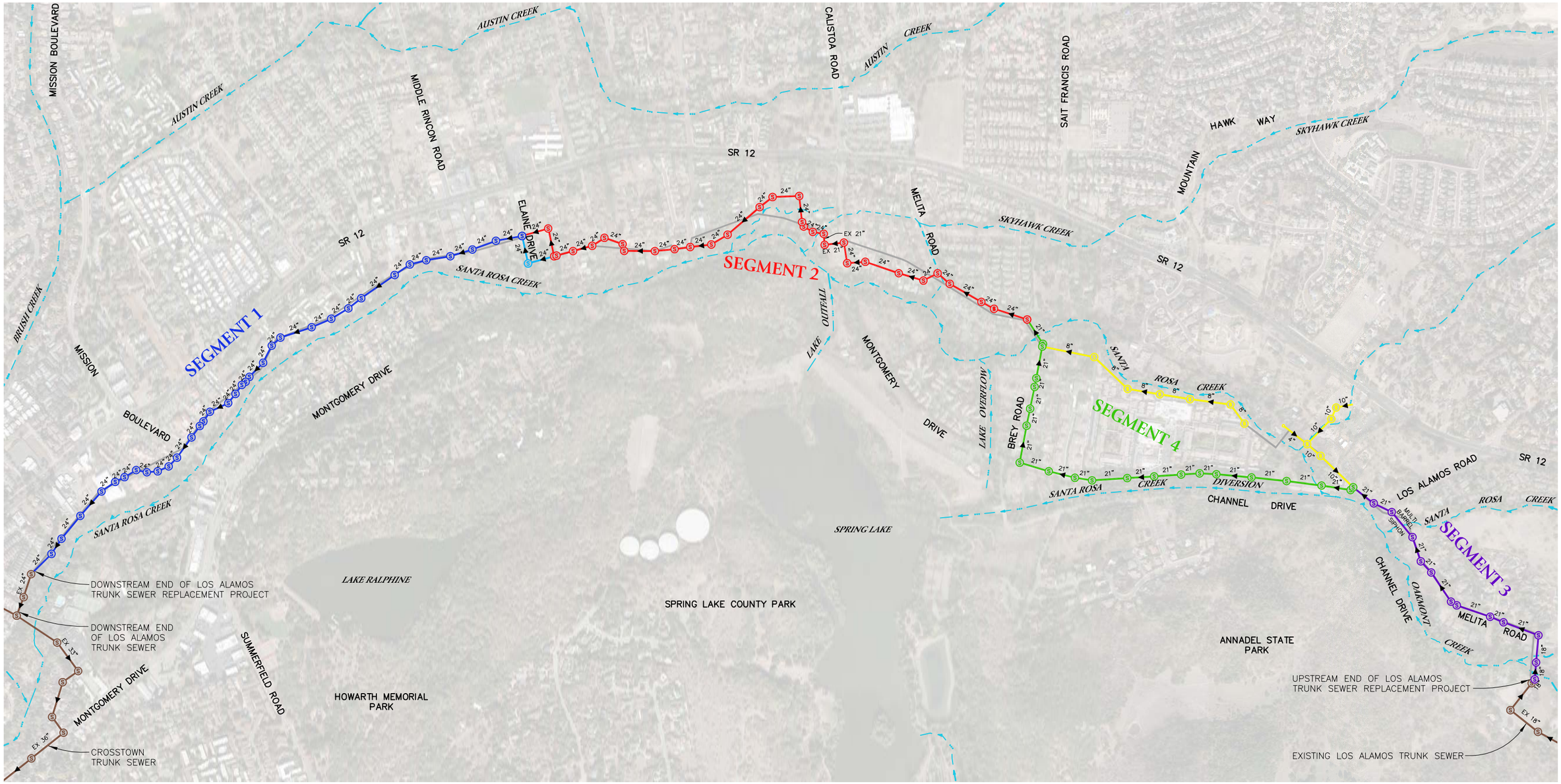
475 Aviation Blvd. Suite 220, Santa Rosa, CA 95403



LEGEND

- PROPOSED SEGMENT 1 TRUNK SEWER ALIGNMENT
- PROPOSED SEGMENT 2 TRUNK SEWER ALIGNMENT
- PROPOSED SEGMENT 3 TRUNK SEWER ALIGNMENT
- PROPOSED SEGMENT 4 TRUNK SEWER ALIGNMENT
- ALTERNATE TRUNK SEWER REPLACEMENT
- MAJOR COLLECTOR SEWER REQUIRING MODIFICATION
- EXISTING TRUNK SEWER TO REMAIN
- EXISTING TRUNK SEWER TO BE REPLACED

NORTH
SCALE: 1" = 850'

FIGURE 2

OVERALL PLAN

CITY OF SANTA ROSA LOS ALAMOS
TRUNK SEWER REPLACEMENT
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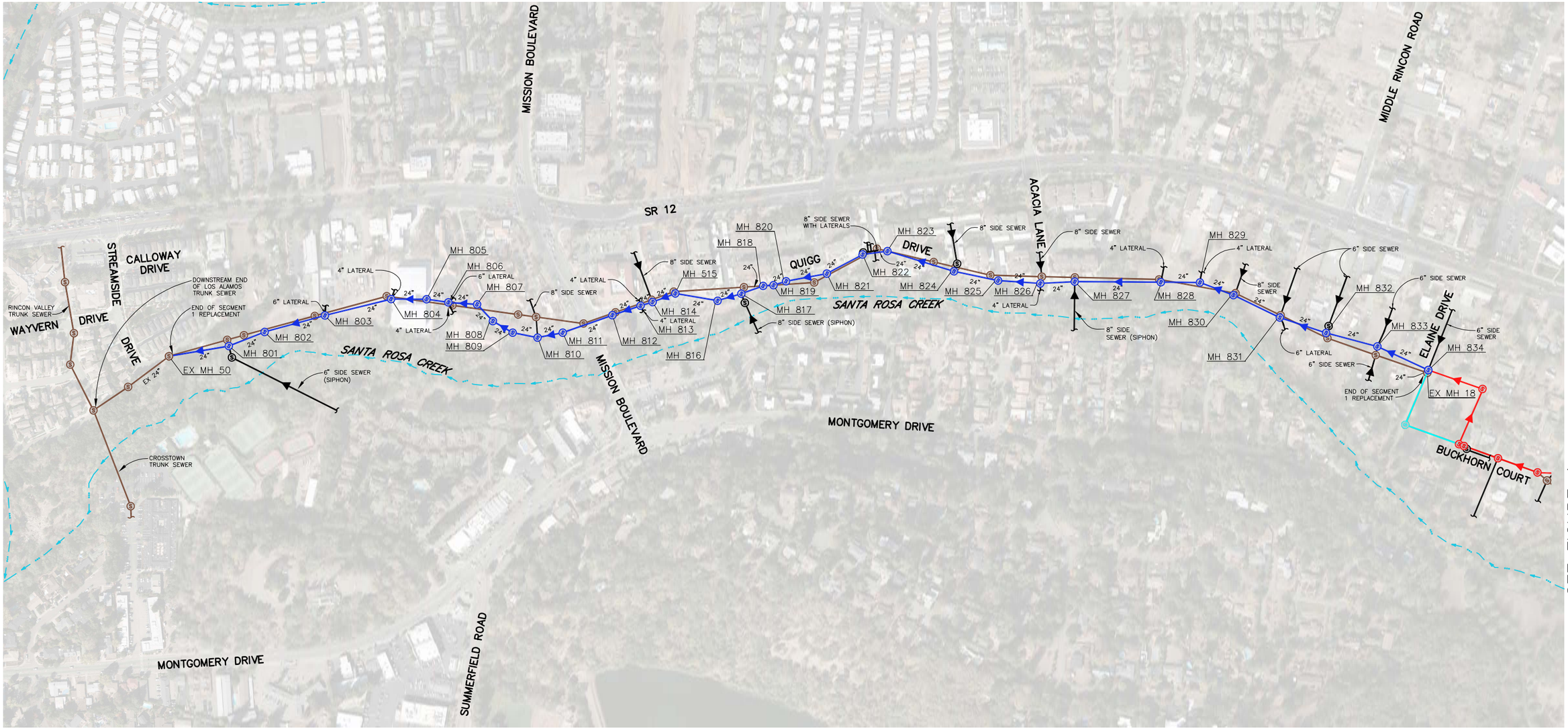

PLAN
SCALE: 1" = 400'

LEGEND

- PROPOSED SEGMENT 1 TRUNK SEWER ALIGNMENT
- PROPOSED SEGMENT 2 TRUNK SEWER ALIGNMENT
- TRUNK OR COLLECTOR SEWER ALIGNMENT OPTION
- EXISTING OR PROPOSED SIDE OR LATERAL SEWER
- EXISTING TRUNK SEWER

NORTH

FIGURE 3

SEGMENT 1 PLAN

CITY OF SANTA ROSA LOS ALAMOS TRUNK SEWER REPLACEMENT

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- Segment 2: 21 to 24-inch trunk sewer would be constructed from the terminus of Segment 1 and extend easterly approximately 5,350 feet to approximately 400 feet east of the intersection of Melita Road and Sharon Street. The main would extend approximately 480 feet across private property to Buckhorn Court, then easterly to Indian Creek Court and down Maria Lane to Santa Rosa Creek Drive. The main would extend to the terminus of Santa Rosa Creek Drive then extend approximate 310 feet across private property to Firestone Court to the southerly terminus of Firestone Court. The main would then extend approximately 530 feet to Gold Drive across private property, continue down Gold Drive onto Melita Road to Segment 2's terminus in Melita Road easterly of Sharon Street. Some minor alternative alignments are contained in the project's Preliminary Engineering Report that will be assessed in subsequent environmental review. Segment 2 is shown on Figure 4.

  Segment 2 would involve crossing Skyhawk Creek and one unamend blue line creek below their existing culverts by either trenching underneath the culvert or utilizing trenchless technologies.

- Segment 3: 18 to 21-inch trunk sewer would extend easterly from the intersection of Montgomery Drive and Melita Road approximately 2,510 feet to its terminus intertie with the existing 18-inch sewer servicing the community of Oakmont. Approximately 400 feet of the main at the easterly end would be across private property. Segment 3 is shown on Figure 5.

  This segment involves crossing Santa Rosa Creek, Melita Creek and Oakmont Creek. Crossings would be accomplished utilizing trenchless technologies to minimize disturbance to streams.

- Segment 4: 21-inch trunk sewer would be constructed down Montgomery Drive and Brey Road to a 24-inch crossing to be placed under Santa Rosa Creek. The existing trunk sewer between Spring Lake Village and Santa Rosa Creek will be abandoned and a new smaller collection sewer to serve Spring Lake Village will be installed. Approximately 7,350 feet of pipe would be installed. Some minor alternative alignments are contained in the project's Preliminary Engineering Report that will be assessed in subsequent environmental review. Segment 4 is shown on Figure 6.

  Segment 4 would require extending the trunk sewer underneath Santa Rosa Creek. Trenchless technologies would be utilized to minimize disturbance to the riparian corridor.

  Segment 4 would intertie Segment 2 and Segment 3. Segment 4 must be completed after Segment 3 to meet sewer elevation needs at the easterly end of Segment 4.

The existing trunk sewer would be backfilled and abandoned in place. Manholes associated with the existing trunk sewer would be removed to one foot below ground surface and similarly be backfilled and abandoned in place.

In this document, Segment 1 is assessed at the project level for construction anticipated to begin in summer 2018. Segments 2 through 4 are assessed at the program level to identify any potential environmental issues that could impact downstream alignment locations and will be subject to project-level CEQA analysis at a future date.

CONSTRUCTION

Construction of Segment 1 is anticipated to take approximately 200 working days over ten months and begin in summer 2018. Construction will be conducted by approximately seven to ten equipment operators and laborers utilizing the following equipment:

- Two track excavators – one medium to large size for trench depths up to 28 feet and one small to medium size excavator for trench depths to 18 feet
- One mini excavator
- One Backhoe/Loader
- One Wheel Loader (two yard bucket)
- One water truck
- One Gradall Telescoping Fork Lift
- One crane truck
- Ten wheel dump trucks running continuously throughout construction

A total import and export of approximately 13,600 yards of material will be required for removing and replacing existing asphalt, exporting trenching spoils and importing backfill materials for pipe bedding. Approximately 3,000 feet of Segment 1 is located in existing paving that will require demolition and replacement. Exported materials will be stockpiled or disposed of according to regulations by the City or the contractor.

RGH conducted a geotechnical assessment of the entire project alignment and indicates that groundwater will likely be encountered within the planned excavation depths for the pipeline. Dewatering will likely be required to accomplish the planned excavations. The dewatering system would likely consist of series of well points spread along the pipeline alignment. Water would be pumped from these well points and discharged into the sanitary sewer system or a storage tank for disposal off site. Dewatering would likely need to occur prior to excavation of the trenches in order to lower the groundwater level below the proposed excavation bottoms. Groundwater typically needs to be lowered to at least three feet below the bottom of the excavation and at least three feet beyond the sidewalls. The contractor will be required to provide the City with a dewatering plan for approval.

The RGH reports that shoring will be required to ensure worker safety during excavation. Excavations can appear to be stable when first exposed but will lose strength over time and will fail unpredictably if left unsupported. This can happen whether the soil is silt, clay, sand or gravel. The geologic units along the pipeline will yield various combinations of these soils. This is further complicated by the fact that these geologic units have the potential to liquefy, which means there is the potential for loose sand and gravel. Based on the groundwater information, the soil along the alignment could be saturated at various times of the year. It has been RGH's experience that when the confinement for sand is removed, the saturated sand can flow into the trench. Trenches will need to be shored during construction in accordance with OSHA regulations. The contractor will be required to provide the City with a shoring plan for approval.

Construction details for segments 2-4 are not known at this time and will be described in subsequent CEQA analysis.

TAB: SEGMENT 2 (CEQA)

SEE FIGURE 3

SEE FIGURE 6

SR 12

6" SIDE SEWER

BEGINNING OF SEGMENT 2 REPLACEMENT

ELAINE DRIVE

MH 834

MH 835

MH 836

8" SIDE SEWER

BUCKHORN COURT

MH 837

MH 839

MH 838

6" SIDE SEWER

INDIAN CREEK DRIVE

MH 840

MH 841

MARIA LANE

ALANA DRIVE

MH 843

MH 844

ROYAL GORGE STREET

MH 842

6" SIDE SEWER (PRIVATE)

SANTA ROSA CREEK

MONTGOMERY DRIVE

MH 845

MH 846

MH 847

10" SIDE SEWER

MH 848

MH 849

SANTA ROSA CREEK TRIBUTARY

FIRESTONE PLACE

MH 850

MH 851

MH 852

MH 853

MH 854

MH 855

CALISTOGA ROAD

MH 856

EX 21"

MH 857

SPRING LAKE OUTFALL

EVONNE AVENUE

MH 858

MH 859

MELITA ROAD

MH 860

MH 861

12" SIDE SEWER

MH 862

SHARON STREET

MH 863

DIANE WAY

MH 865

MH 864

KATHLEEN COURT

EX MH 30

END OF SEGMENT 2 REPLACEMENT

EVENING WAY

SKYHAWK CREEK

SANTA ROSA

SPRING LAKE OVERFLOW CANAL

BREY ROAD

PLAN

SCALE: 1" = 400'

LEGEND

- PROPOSED SEGMENT 1 TRUNK SEWER ALIGNMENT
- PROPOSED SEGMENT 2 TRUNK SEWER ALIGNMENT
- PROPOSED SEGMENT 4 TRUNK SEWER ALIGNMENT
- TRUNK OR COLLECTOR SEWER ALIGNMENT OPTION
- MAJOR COLLECTOR SEWER REQUIRING MODIFICATION (RECONSTRUCTION)
- EXISTING OR PROPOSED SIDE OR LATERAL SEWER
- EXISTING TRUNK SEWER

NORTH

FIGURE 4

SEGMENT 2 PLAN

CITY OF SANTA ROSA LOS ALAMOS TRUNK SEWER REPLACEMENT

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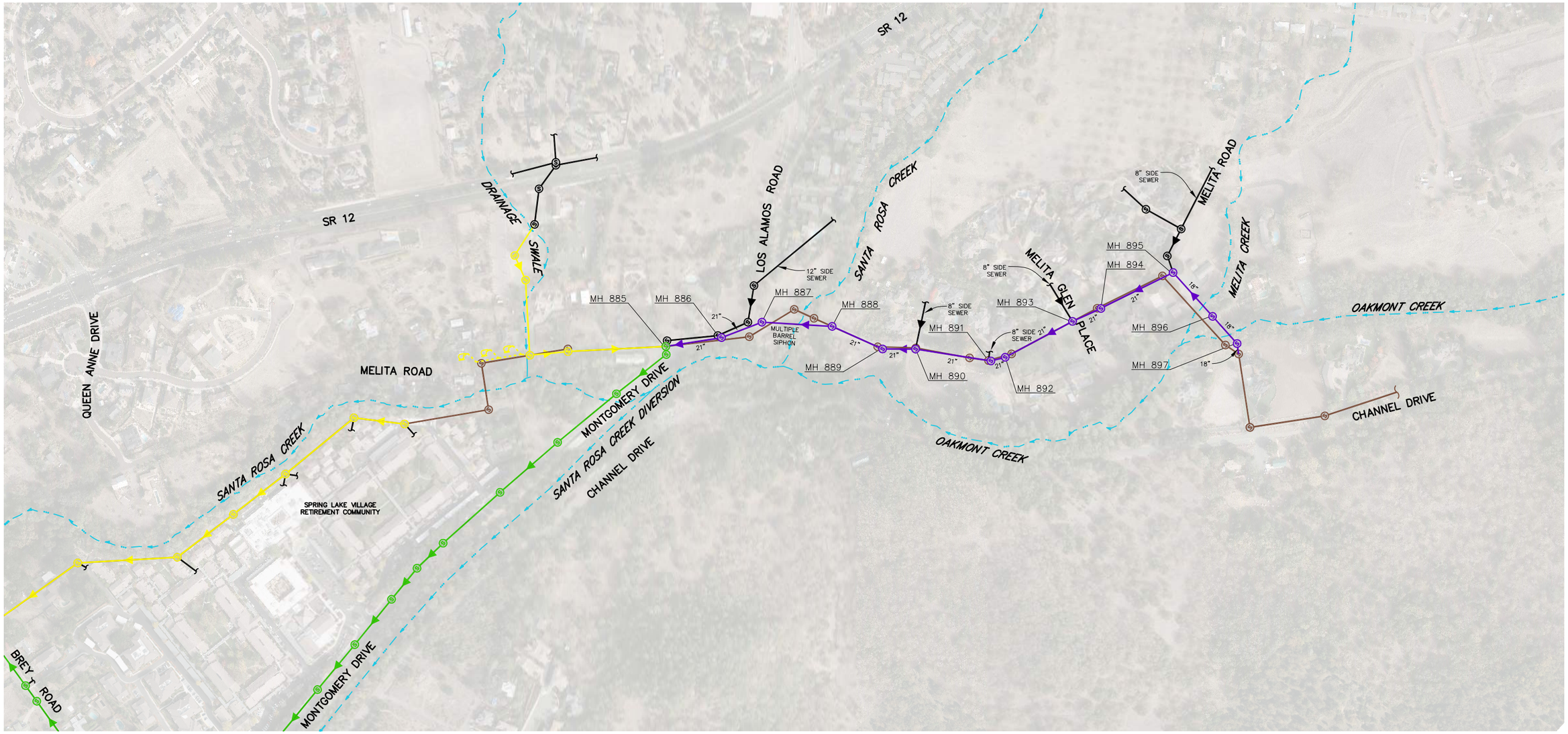
09-26-17 bryant \4247\dwg\4247 01\EXHIBITS-Prelim Design Report\4247.01 EXHIBIT-POR FIGURE 1.2.1.2-Segment 2.dwg

TAB: Segment 3 (CEQA)



SEE FIGURE 6

PLAN
SCALE: 1" = 400'

LEGEND

- PROPOSED SEGMENT 3 TRUNK SEWER ALIGNMENT
- PROPOSED SEGMENT 4 TRUNK SEWER ALIGNMENT
- MAJOR COLLECTOR SEWER REQUIRING MODIFICATION (RECONSTRUCTION)
- EXISTING OR PROPOSED SIDE OR LATERAL SEWER
- EXISTING TRUNK SEWER

NORTH

FIGURE 5

SEGMENT 3 PLAN

CITY OF SANTA ROSA LOS ALAMOS TRUNK SEWER REPLACEMENT

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09-28-17 bryant \4247\dwg\4247 01\EXHIBITS-Prelim Design Report\4247.01 EXHIBIT-POR FIGURE 1.2.1.3-Segment 3.dwg

SEE FIGURE 4

SEE FIGURE 5

MELITA ROAD

PROPOSED NEW COLLECTOR SEWER (POTENTIALLY PRIVATIZED) TO CONTINUE SERVING SPRING LAKE VILLAGE RETIREMENT COMMUNITY

PROPOSED NEW PRIVATELY OWNED INDIVIDUAL GRINDER PUMPS TO RE-CONNECT EXISTING CUSTOMERS (TYP OF 3)

6" SIDE SEWER

KATHLEEN COURT

SANTA ROSA CREEK

SPRING LAKE VILLAGE RETIREMENT COMMUNITY

6" SIDE SEWER (PRIVATE)

FORCE MAIN SIDE SEWER

8" SIDE SEWER

10" SIDE SEWER

BREY ROAD

SPRING LAKE OVERFLOW CANAL

MONTGOMERY DRIVE

SANTA ROSA CREEK DIVERSION

DRAINAGE SWALE

10" COLLECTOR SEWER

10" COLLECTOR SEWER REQUIRING RECONSTRUCTION

12" COLLECTOR SEWER

LOS ALAMOS RD

OAKMONT CREEK

CHANNEL DRIVE

MH 865
MH 866
MH 867
MH 867A
MH 867B
MH 867C
MH 867D
MH 867E
MH 867F
MH 868
MH 869
MH 870
MH 871
MH 872
MH 873
MH 874
MH 875
MH 876
MH 877
MH 878
MH 879
MH 880
MH 881
MH 882
MH 883
MH 884
MH 885
MH 885A
MH 885B

PLAN
SCALE: 1" = 400'

LEGEND

- PROPOSED SEGMENT 4 TRUNK SEWER ALIGNMENT
- PROPOSED SEGMENT 2 TRUNK SEWER ALIGNMENT
- PROPOSED SEGMENT 3 TRUNK SEWER ALIGNMENT
- MAJOR COLLECTOR SEWER REQUIRING MODIFICATION (RECONSTRUCTION)
- EXISTING OR PROPOSED SIDE OR LATERAL SEWER
- EXISTING TRUNK SEWER

NORTH

FIGURE 6

SEGMENT 4 PLAN

CITY OF SANTA ROSA LOS ALAMOS TRUNK SEWER REPLACEMENT

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Portions of Segment 1 will require wastewater to be bypassed to facilitate construction of the replacement main and allow continuation of wastewater collection by the City. The potential bypass pumping locations are shown on Figure 7. The contractor will be required to develop an appropriate bypass pumping plan that provides continuous service and includes contingency plans for the event of a break or malfunction of the bypass system. Wastewater bypass is typical of this sort of project and has been demonstrated to be safe. The City will review and approve the bypass plan and contingency response plan prior to proceeding with construction.

ABANDONMENT

The City will abandon existing sewer mains and manholes in place. Existing structures will be backfilled and generally be left in place. Below is a list of additional best management practices to be in place or available during sanitary sewer abandonment work:

1. An Abandonment Work Plan that includes a Spill Contingency Plan and as-built drawings shall be prepared, reviewed, and approved prior to the start of any sanitary sewer system abandonment work.
2. On-site personnel shall be made aware of the Abandonment Work Plan prior to start of any sanitary sewer system abandonment work.
3. Sand bags shall be placed around all location where abandonment materials are being placed into the sanitary sewer system and at each downstream manhole;
4. Sand bags or straw wattles shall be placed around any areas where construction equipment performing sanitary sewer abandonment work is operating;
5. Visqueen plastic shall be onsite for overflow containment or for lining of clean-out pits/excavations as needed;
6. Radio or mobile phone communications shall be provided at the up and downstream ends of the sanitary sewer system area being abandoned;
7. Personnel shall be provided to monitor nearby creek banks adjacent to the sanitary sewer system area being abandoned;
8. The Contractor's safety/SWPPP representative shall be on site for security purposes and monitoring the abandonment operations;
9. The Contractor and abandonment crew shall provide immediate response for containment with construction equipment if required;
10. City inspection and BMP staff shall be present to monitor compliance with the abandonment work plan and to monitor waterways.
11. Construction equipment shall be on site for excavating down to the sanitary sewer system being abandoned if needed.
12. Construction equipment shall be on site for building emergency berms or containment basins as needed during sanitary sewer abandonment work.
13. Abandonment materials shall be delivered to each abandonment insertion location by hose.
14. Standby vac-truck equipment with hoses shall be available during abandonment work on a minimum two hour response time.
15. Standby pump truck equipment with hoses shall be available during abandonment work on a minimum two hours response time.

SCHEDULE

Segment 1 is anticipated to take approximately 10 months to construct. It is estimated that an average of approximately 40 feet of pipeline could be installed per day. That average would vary depending on soil conditions, trench depth and other constraints. The following approximate timelines have been developed for various portions of Segment 1:

- Approximately 1,750 feet of trenching in front of residential properties along Quigg Drive between approximately just east of Mission Boulevard and Acadia Lane with an estimated duration of approximately 48 working days.
- Approximately 1,010 feet of trenching in front of commercial frontages along Quigg Drive east and of Mission Boulevard and Mission Circle west of Mission Boulevard with an estimated duration of approximately 37 working days.
- Mission Circle and Mission Blvd are very busy traffic areas. Nighttime construction would minimize impacts to surrounding businesses and there are no residential houses in the immediate area. Total length of trenching in this area is approximately 610 feet to cross the intersection with an estimated duration of approximately 19 working days.
- Approximately 1,400 feet of trenching through private roads and residential backyards easterly of the terminus of Quigg Drive at Acacia Lane to Elaine Drive estimated to take approximately 28 working days.
- Approximately 0.3 miles of Santa Rosa Creek Pathway between Streamside Drive and Mission Circle will need to be closed during the portions of the work of approximately 27 working days. Bikes could be routed around this area by directing bikes south on the Brush Creek Pathway towards Yulupa Circle, south on Yulupa Circle and Yulupa Avenue, northeast on Montgomery Drive, and northwest on Mission Boulevard. The bypass is approximately 1.3 miles in length.

GROWTH INDUCEMENT POTENTIAL

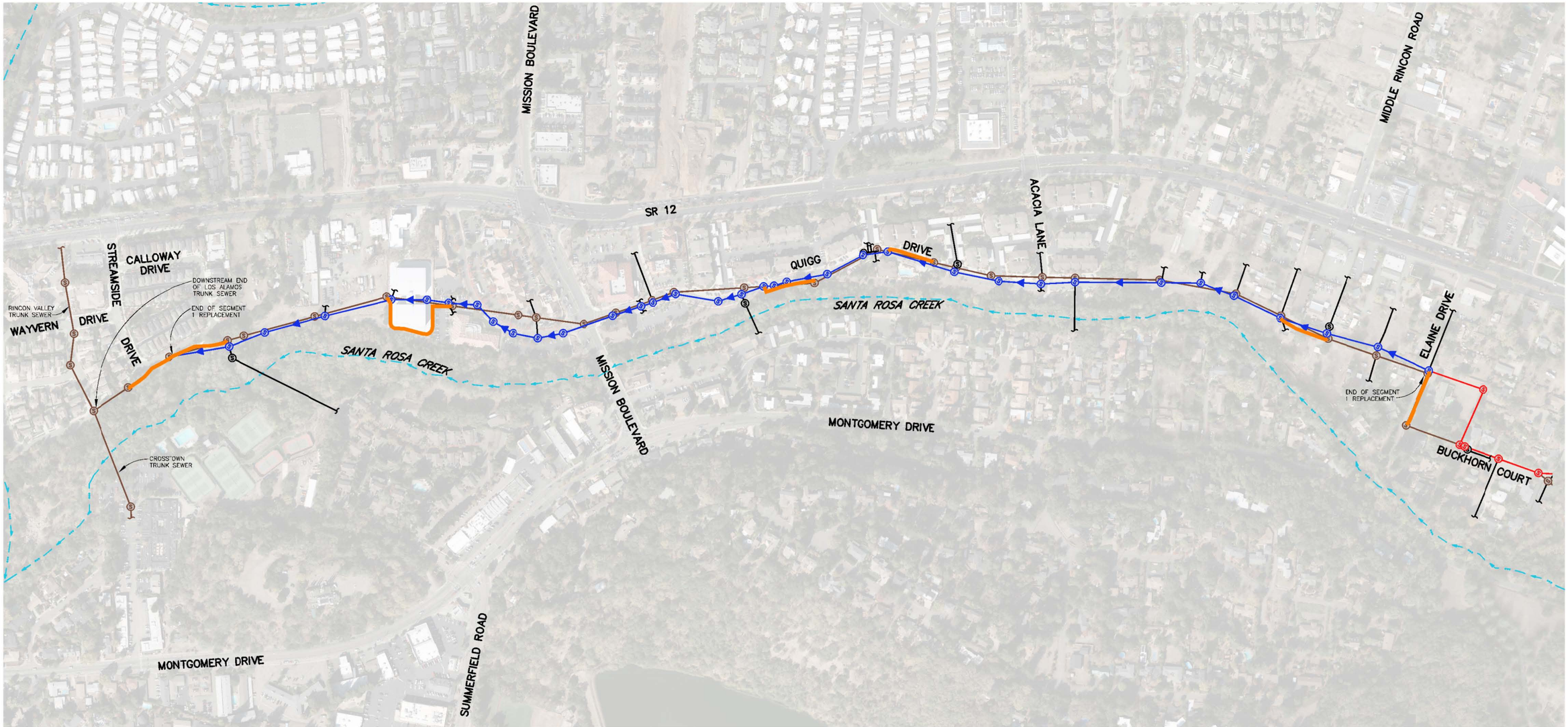
The proposed project does not induce growth. The project responds to existing and planned development according to the City's General Plan and MPU. The project is specifically identified as required to meet future growth within the City by the Capital Improvement Plan, as indicated in the Policy Setting portion of this document.

OTHER PUBLIC AGENCY APPROVALS

The project is under City review authority. Due to the nature of the project, it is expected that the following additional agencies may have review or permit authority over the project:

- California Department of Fish and Wildlife for stream crossings that are not located under existing culverts associated with segments 2-4
- US Army Corps of Engineers for stream crossings that are not located under existing culverts associated with segments 2-4
- Regional Water Quality Control Board for any contaminated groundwater disposal and stream crossings that are not located under existing culverts associated with segments 2-4.
- Sonoma County Water Agency for any project activities within their flood control authority

TAB: SEGMENT 1 (CEQA) (BYPASS)



PLAN
SCALE: 1" = 400'

LEGEND

- PROPOSED SEGMENT 1 TRUNK SEWER ALIGNMENT
- PROPOSED FUTURE TRUNK SEWER ALIGNMENT
- EXISTING OR PROPOSED SIDE OR LATERAL SEWER
- EXISTING TRUNK SEWER
- POTENTIAL BYPASS PUMPING ROUTE

NORTH

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FIGURE 7

SEGMENT 1 POTENTIAL BYPASS PUMPING ROUTES

CITY OF SANTA ROSA LOS ALAMOS
TRUNK SEWER REPLACEMENT

NOVEMBER 2017

11-10-17 bryant \4247\dwg\4247 01\EXHIBITS-Prelim Design Report\4247.01 EXHIBIT-PDR FIGURE 1.2.1.1-Segment 1.dwg

ENVIRONMENTAL SIGNIFICANCE CHECKLIST:

The following list of questions is provided by Appendix G of the CEQA Guidelines, in order to determine a project's environmental impacts.

Based on the project description, answers to the questions fall into one of four categories:

- Potentially Significant Impact (**PS**)
- Less Than Significant Impact with Mitigation Incorporation (**LSM**)
- Less Than Significant Impact (**LS**)
- No Impact (**NI**)

With regard to the checklist, a "No Impact" response indicates that no impact would result from implementation of the project. A "Less Than Significant Impact" response indicates that an impact would occur, but the level of impact would be less than significant. A "Less Than Significant with Mitigation Incorporation" response indicates that an impact is involved, and, with implementation of the identified mitigation measure, such impact would be less than significant. A "Potentially Significant Impact" response indicates that there is substantial evidence that impacts may be significant if mitigation measures are unknown, infeasible, or not proposed. Each response is discussed at a level of detail commensurate with the potential for adverse environmental effect.

The discussion following each checklist item consists of an *Analysis* section, a *Cumulative Impacts* discussion, and a section for identification of *Mitigation Measures*, as necessary. The *Analysis* section includes a discussion addressing whether the project would result in potential adverse environmental impacts. All potential impacts have been considered, including on-site and off-site impacts, direct and indirect impacts, construction and operation-related effects, as well as cumulative effects. The recently updated CEQA Guidelines contain revised regulations relative to the project's potential for contributing to cumulative effects[3]. The *Cumulative Impacts* section presents information regarding the project's potential cumulative impacts and is included in this section. If an impact(s) has been identified and mitigation is identified to reduce the impact to a less than significant level, then such measures are contained in the *Mitigation Measures* section.

3 California Environmental Quality Act Guidelines, §15064(i).

I AESTHETICS

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project have a substantial adverse effect on a scenic vista?	□	□	□	■
b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	□	■	□	□
c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?	□	□	■	□
d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	□	□	□	■

Analysis

a. Would the project have a substantial adverse effect on a scenic vista?

NI A scenic vista is generally considered a view of an area that has remarkable scenery or a resource that is indigenous to the area. Although the project site is not considered to be a scenic vista for the purposes of this environmental analysis, the pipeline alignment does have characteristics (i.e., naturally growing vegetation, the Santa Rosa Creek Trail, etc.) that most people would consider aesthetically pleasing and a positive visual resource. The proposed project would not result in the disturbance or elimination of open space area or remove an object of aesthetic value. The project would not result in long-term physical adverse changes to the height or bulk of structures or view blockages along the view shed of the pipeline alignment. The project involves below-ground wastewater main pipelines and obstruction of scenic views will be avoided.

Construction activities would create dust, disturb roadways, expose soil from grading, and create soil piles from trenching and excavation. However, these activities would not block views of scenic vistas. Therefore, short-term construction impacts associated with the project would not have a significant impact on any scenic vista.

The project would not result in long-term impacts since the wastewater main would be buried. The project will not have any significant impact on a scenic vista and there are no formally designated vistas in the project vicinity.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

LSM The closest state-designated scenic highway is Highway 12 to the north of the project. The project will not be visible from a state scenic highway[4].

Melita Road, Los Alamos Road and Montgomery Drive are designated scenic roads by the General Plan in the project area. Scenic roads potentially impacted by the project are as follows:

- Los Alamos Road: Los Alamos road would not be impacted beyond its intersection with Melita Road within Segment 3.
- Melita Road: Approximately 2,900 to 5,400 (depending on which alternative is selected) feet of pipeline would be installed during Segment 3 and 4
- Montgomery Drive: Approximately 2,900 feet of pipeline would be installed during Segment 4

Scenic Roads are guided by policy T-G of the General Plan. The pipeline will not have any direct long-term visual impacts to scenic resources or the visual quality of scenic roadways. However, there is the potential for impacts to trees or tree roots that could result in tree removal or long-term death associated with pipeline installation. General Plan policy T-G-5 requires retaining existing tress and vegetation along scenic roads, to the extent possible. Please see the Biological Resources section for a discussion of mitigation for this potential impact.

Segment 1 of the project will extend along the Santa Rosa Creek trail for approximately 0.3 miles extending easterly from Streamside Drive. As with the scenic roadways, long-term visual impacts will not occur from the pipeline itself. However, there is the potential for impacts to trees or tree roots that could result in tree removal or long-term death. Please see the Biological Resources section for a discussion of mitigation for this potential impact.

c. Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

LS Because project components will be installed below grade with surfaces restored, the project will not alter the long-term visual character of the pipeline alignment or it surroundings in any appreciable way Visual impacts to the area and its surroundings would be less than significant.

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

NI The project will not create a new substantial source of light or glare. No lighting is proposed associated with the project.

[4] http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm

Cumulative Impacts

There are no adverse cumulative environmental impacts to aesthetic resources resulting from implementation of the proposed project.

Mitigation Measures

Please see the Biological Resources section for discussion of mitigation related to potential impacts to trees.

II AGRICULTURAL & FOREST RESOURCES

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

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project 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. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?	□	□	□	■
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	□	□	□	■
d. Result in the loss of forest land or conversion of forest land to non-forest use?	□	□	□	■
e. Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	□	□	□	■

Analysis

a. Would the project 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?

NI Agricultural lands within the state of California are rated according to soil quality and irrigation status by the Farmland Mapping and Monitoring Program (FMMP). The FMMP produces maps and statistical data used for analyzing impacts on California's agricultural resources. The project site is designated as Urban and Built-up Land by the Farmland Mapping and

Monitoring Program[5] as shown on Figure 8. The project will not convert Farmland to non-agricultural uses.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

NI Agricultural land in the project area may also be subject to the California Land Conservation Act of 1965, more commonly referred to as the Williamson Act. The Williamson Act enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments that are lower than normal because they are based on farming and open space uses as opposed to full market value.

The project site is not located on any parcels with a Williamson Act contract and is primarily within developed roadways.

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))?

NI The project area is generally developed as part of Santa Rosa, is not zoned for and does not currently support timberland. The project will not result in any impact to timberland.

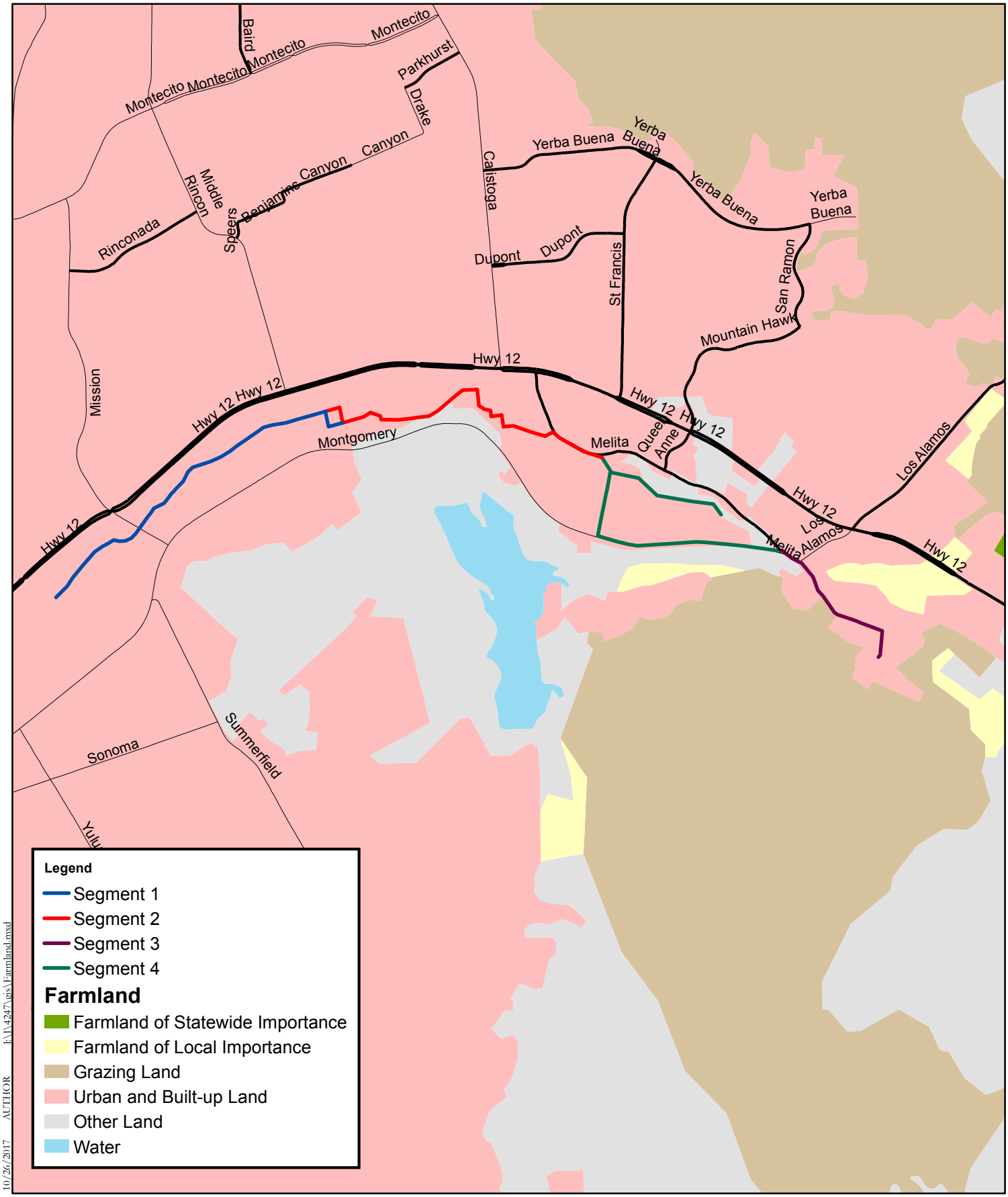
d. Result in the loss of forest land or conversion of forest land to non-forest use?

NI The project area does not currently support forest land and the project area is not forested. The pipeline alignment is currently primarily developed as roadway or other urban uses and the proposed project will not result in any impact to forestland.

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

NI The project area is within the developed portion of the City of Santa Rosa and not currently in agricultural production. The project will not impact agricultural resources in the project area or result in the conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use.

[5] *Sonoma County Important Farmland—2014*. Farmland Mapping and Monitoring Program of the California Resources Agency.



10/26/2017 AUTHOR E:\V4247\gis\Farmland.mxd

Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

ENTER DATA SOURCES HERE LIKE FOLLOWS

Aerial Imagery: US Dept. of Agriculture, NAIP series

NORTH

0 500 1,000 2,000 Feet

1 inch = 2,000 feet

Brelje & Race CONSULTING ENGINEERS
475 Aviation Blvd. Suite 120, Santa Rosa, CA 95403

FIGURE 8

IMPORTANT FARMLAND

CITY OF SANTA ROSA

NOVEMBER 2017

Cumulative Impacts

There are no adverse cumulative environmental impacts to agricultural and forestry resources resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to agricultural and forestry resources have been identified; therefore, no mitigation is required.

III AIR QUALITY

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project conflict with or obstruct implementation of the applicable air quality plan?	□	□	■	□
b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?	□	■	□	□
c. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	□	□	□	■
d. Would the project expose sensitive receptors to substantial pollutant concentrations?	□	■	□	□
e. Would the project create objectionable odors affecting a substantial number of people?	□	□	□	■

Analysis

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

LS The project area is within the Bay Area Air Quality Management City (BAAQMD). The BAAQMD plans and implements strategies to keep the District in attainment with California and federal air quality standards. For standards that are not designated as attainment, the BAAQMD develops plans to bring the District into attainment. BAAQMD's 2017 Clean Air Plan is the most recent air quality plan for the District.

California and Federal standards for certain types of criteria air quality pollutants for the year 2015 (most recent update) are shown below.

Pollutant	**Averaging Time**	**State Standard**	**Federal Primary Standard**
Ozone	1-Hour 8-Hour	0.09 ppm 0.07 ppm	-- 0.070 ppm
PM10	Annual 24-Hour	20 ug/m3 50 ug/m3	-- 150 ug/m3
PM2.5	Annual 24-Hour	12 ug/m3 ---	12 ug/m3 35 ug/m3
Carbon Monoxide	8-Hour 1-Hour	9.0 ppm 20.0 ppm	9.0 ppm 35.0 ppm
Nitrogen Dioxide	Annual 1-Hour	0.03 ppm 0.18 ppm	.053 ppm 100 ppb

Sulfur Dioxide	24-Hour 3-Hour 1-Hour	0.04 ppm -- 0.25 ppm	.14ppm -- 75 ppb
Lead	30-Day Avg. Calendar Quarter 3-Month Avg.	1.5 ug/m3 -- --	-- 1.5 ug/m3 0.15 ug/m3

ppm = parts per million
ppb = parts per billion
ug/m3 = Micrograms per Cubic Meter

Ambient air quality measurements are routinely conducted at air quality monitoring stations throughout the BAAQMD to measure compliance with the criteria above for the air district. BAAQMD attainment status is shown below.

Standard	**2015 State Status[6]**	**2015 Federal Status**
Ozone 8-Hour	Attainment	Unclassified/Attainment
Ozone 1-Hour	N/A	N/A
PM2.5	Attainment	Unclassified/Attainment
PM10	Attainment	Unclassified
Carbon Monoxide	Attainment	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified
Sulfates	Attainment	N/A
Lead	Attainment	Unclassified/Attainment
Hydrogen Sulfide	Attainment	N/A
Visibility Reducing Particles	Attainment	N/A

Both the California Air Resources Board (CARB) and the US EPA use this type of monitoring data to designate areas according to attainment status for criteria air pollutants established by the agencies. The purpose of these designations is to identify those areas with air quality problems and thereby initiate planning efforts for improvements. The three basic designation categories are nonattainment, attainment, and unclassified. Unclassified is used in an area that cannot be classified on the basis of available information as meeting or not meeting the standards. In addition, the California designations include a subcategory of the nonattainment designation, called nonattainment-transitional. The nonattainment-transitional designation is given to nonattainment areas that are progressing and nearing attainment.

The project responds to the need for infrastructure improvements within the City to accommodate orderly growth as planned for by the General Plan. The project does not increase long-term emissions directly associated with it. Long-term emissions will result based

[6] http://www.arb.ca.gov/desig/adm/adm.htm

on growth within the City. Impacts associated with emissions from projected growth are appropriately addressed in the City's General Plan and the BAAQMD's Clean Air Plan at the air basin level. Because the project will not directly increase on-going emissions of monitored air pollutants and will not impact the area's attainment status, it will not conflict with or obstruct implementation of the BAAQMD's 2017 Clean Air Plan.

b. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

LSM The BAAQMD provides useful guidance in assessing the project's potential impacts on attainment status. The BAAQMD's 2017 Air Quality Guidelines[7] establish recommended thresholds of significance for criteria pollutants for project construction and operation for CEQA analysis. The Air Quality Guidelines do not provide screening levels for this type of relocation project so it is necessary to conduct an analysis using the Road Construction Emissions Model (RoadMod), Version 8.1.0, per Air Quality Guidelines recommendations for linear pipeline projects.

The BAAQMD's thresholds are presented below with a comparison to modeled project construction-related emissions generated utilizing the RoadMod model. Emissions shown below assume non mitigated emissions with an approximately ten month construction period for Segment 1. Segments 2 through 4 are not assessed at the project level here do to the lack of design-level information to generate appropriate assumptions. These segments will be assessed under their own CEQA document(s).

Since the City has not adopted its own thresholds of significance, the BAAQMD's thresholds are presented below with a comparison to projected Segment 1 project construction related emissions generated utilizing the Road Construction Emissions Model, Version 8.1.0 model (RoadMod). Emissions shown below assume non mitigated emissions with an approximately three month construction period.

BAAQMD Thresholds of Significance		**Segment 1 Project Emissions**
Criteria Air Pollutants & Precursors	**Construction-related Average Daily Emissions (lb/day)**	**RoadMod Construction Emission Estimates (lb/day)**
ROG	54	3.99
NOx	54	40.74
PM10	82 (exhaust only)	2.14
PM2.5	54 (exhaust only)	1.90

As indicated in the table above, the project's Segment 1 construction-related emissions are modeled to be lower than the BAAQMD's thresholds of significance. Based on the above, emissions associated with project construction are considered to be less than significant. Project operational emissions will be similar to current emissions due to the replacement

[7] California Environmental Quality Act Air Quality Guidelines. Bay Area Air Quality Management District. May 2017.

nature and energy-passive gravity flow sewer system. Please see the Greenhouse Gas section of this document for further discussion.

Construction activities associated with all segments of the project have the potential to create localized short-term dust impacts, PM10 and PM2.5. Mitigation Measure AQ1 includes feasible control measures for all segments and reduces such impacts to a less than significant level, as provided by the BAAQMD's Basic Construction Mitigation Measures.

c. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

NI The project will not result in a cumulatively considerable net increase of any criteria pollutant. As indicated in (a.) above, the Segment 1 project will not negatively impact existing air quality conditions not already planned for by the City's General Plan and the BAAQMD's 2017 Clean Air Plan.

d. Would the project expose sensitive receptors to substantial pollutant concentrations?

LSM The project will result in construction-related combustion of diesel fuel and dust that could negatively impact adjacent residents along the pipeline routes. Demolition and excavation create the majority of vehicle emissions and construction-related dust. This period will be limited to approximately nine months for Segment 1 of the project. Mitigation Measure AQ1 includes construction-related dust control that reduces this potential impact to less than significant.

e. Would the project create objectionable odors affecting a substantial number of people?

NI Properly functioning sewer mains do not typically result in objectionable odors and there are no objectionable odors created by the existing trunk sewer. This project will relocate portions of the trunk sewer that currently pass through private property into the public right away and further from potential sensitive receptors. Because the existing trunk main does not result in odors, the new trunk main is not expected to result in objectionable odors.

Cumulative Impacts

There are no adverse cumulative environmental impacts to air quality resulting from implementation of the proposed project.

Mitigation Measures

AQ1 The following Feasible Control Measures, as described by the BAAQMD, shall be implemented during construction to minimize fugitive dust and emissions:

i. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
ii. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
iii. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
iv. All vehicle speeds on unpaved roads shall be limited to 15 mph.
v. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.
vi. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
vii. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
viii. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

IV BIOLOGICAL RESOURCES

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS)?	□	■	□	□
b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	□	■	□	□
c. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	□	□	□	■
d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	□	□	□	■
e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	□	■	□	□
f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	□	□	□	■

WRA, Inc. conducted a biological resources assessment[8] and arborist assessment for Segment 1 of the project, extending 15 feet to either side of the project (within the temporary construction easement). The biological resources assessment describes the results of the site visits, which assessed the Project Area for the (1) potential to support special-status species, (2) the potential presence of sensitive biological communities such as wetlands or riparian habitats, and (3) the potential presence of other sensitive biological resources protected by local, state, and federal laws and regulations.

Analysis

a. Would the project 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,

[8] Biological Resources Assessment Los Alamos Trunk Sewer Replacement Phase 1. WRA, Inc. September 2017.

policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS)?

LSM Special-status species include those plants and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the Federal Endangered Species Act (ESA) or California Endangered Species Act (CESA). These acts protect both listed species and those that are formal candidates for listing. In addition, CDFW Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, CDFW California Fully Protected species, USFWS Birds of Conservation Concern, and CDFW special-status invertebrates, are all considered special status species. Although the species in the latter categories generally have no special legal status, they are given special consideration under CEQA. Bat species are also evaluated for conservation status by the Western Bat Working Group (WBWG), a non-governmental entity; bats named as a High Priority or Medium Priority species for conservation by the WBWG are typically considered special-status and are considered under CEQA. Plant species on the California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (Inventory) with California Rare Plant Ranks (Rank) of 1 through 3 are also considered special-status plant species and must be considered under the CEQA. In addition to regulations for special-status species, most birds in the United States, including nonspecial status native species, are protected by the Migratory Bird Treaty Act of 1918 (MBTA). Under these laws, destroying active bird nests, eggs, and/or young is illegal.

Critical habitat is a term defined in the ESA as a specific geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. The ESA requires federal agencies to consult with the USFWS to conserve listed species on their lands and to ensure that any activities or projects they fund, authorize, or carry out will not jeopardize the survival of a threatened or endangered species. In consultation for those species with critical habitat, federal agencies must also ensure that their activities or projects do not adversely modify critical habitat to the point that it will no longer aid in the species recovery. In many cases, this level of protection is similar to that already provided to species by the ESA jeopardy standard. However, areas that are currently unoccupied by the species but which are needed for the species recovery are protected by the prohibition against adverse modification of critical habitat.

Potential occurrence of special-status species in the project area was evaluated by first determining which special-status species occur in the vicinity of the project area through a literature and database search. Database searches for known occurrences of special-status species focused on the Santa Rosa 7.5-minute U.S. Geological Survey (USGS) quadrangle and the eight surrounding quadrangles: Healdsburg, Sebastopol, Two Rock, Cotati, Glen Ellen, Kenwood, Calistoga, and Mark West Springs. The following sources were reviewed to determine which special-status plant and wildlife species have been documented to occur in the vicinity of the project area:

- CNDDB records (CDFW 2017)
- USFWS Information for Planning and Conservation Report (IPaC; USFWS 2017)
- CNPS Rare and Endangered Plant Inventory (CNPS 2016b)
- CDFG publication California's Wildlife, Volumes I-III (Zeiner et al. 1990)
- CDFG publication California Bird Species of Special Concern (Shuford and Gardali 2008)

- CDFW and University of California Press publication California Amphibian and Reptile Species of Special Concern (Thomson et al. 2016)
- A Flora of Sonoma County (Best et al. 1996)
- Marin Flora (Howell et al. 2007)
- A Field Guide to Western Reptiles and Amphibians (Stebbins 2003)
- Sonoma County Breeding Bird Atlas (Madrone Audubon Society 1995)
- Santa Rosa Plain Conservation Strategy (USFWS 2005)
- Santa Rosa Plain Programmatic Biological Opinion (USFWS 2007)
- Final Recovery Plan for the Santa Rosa Plain (USFWS 2016)

WRA biologists conducted site visits on May 9, July 7, and July 10, 2017. The project area was traversed on foot to determine (1) plant communities present within the project area, (2) whether existing conditions provide suitable habitat for any special-status plant or wildlife species, and (3) whether sensitive habitats are present.

The proposed alignment roughly parallels Santa Rosa Creek, a perennial United States Geological Survey (USGS) "blue-line" stream to the south of the project area. While the majority of the project area is developed, consisting of City roads, and commercial and residential lots, portions of the project area consist of natural vegetation communities including coast live oak woodland, willow riparian thicket, and ruderal herbaceous grassland. The project area is bordered by the Santa Rosa Creek corridor to the south, and commercial and residential development to the west, north, and east. Evidence of previous and ongoing human disturbance within the undeveloped portions of the project area observed during the site visits and review of recent aerial photography (Google Earth 2017) include walking paths and pedestrian use, and mowing and/or discing.

Based upon a review of the resources and databases listed above, it was determined that 90 special-status plant species have been documented from the vicinity of the project area. Of the 90 special-status species known from the region, only one (Congested-headed hayfield tarplant) was determined to have a moderate potential to occur within the project area and is discussed below. The remaining species documented to occur in the vicinity of the project area are unlikely or have no potential to occur based on area conditions. CNDDB plant listings are shown on Figure 9.

Congested-headed hayfield tarplant (*Hemizonia congesta* ssp. *congesta*). CNPS Rank 1B. Not Observed (initially assessed: Moderate Potential). Congested-headed hayfield tarplant is an annual herb in the sunflower family (Asteraceae) that blooms from April to November. It typically occurs in grassy areas and fallow fields in coastal scrub, and valley and foothill grassland at elevations ranging from 65 to 1,840 feet (CDFW 2017, CNPS 2017b). Known associated species include coast live oak, white hyacinth (*Triteleia hyacinthina*), Italian rye grass, little rattlesnake grass (*Briza minor*), pennyroyal, and spiny buttercup (CDFW 2017).

Congested-headed hayfield tarplant is known from 23 USGS 7.5-minute quadrangles in Marin, Mendocino, San Francisco, San Mateo, and Sonoma counties (CNPS 2017b). There are 16 CNDDB (CDFW 2017) records in the greater vicinity of the project area, 80 CCH (2017) records from Marin County, and 58 CCH (2017) records from Sonoma County. The nearest documented occurrence is from 1994 and is approximately 4.5 miles west of the project area. The most recent documented within the vicinity of the project area is occurrence is from 2008,

and is approximately 4.7 miles north of the project area (CDFW 2017). Congested-headed tarplant was initially assessed as having a moderate potential to occur in the grassland areas of the project area due to the presence of associated species, suitable substrate, and multiple documented occurrences in relatively close proximity to the project area. However, this species was not observed in the project area during the site visits which were conducted during the documented bloom period of the species. No project related impacts to special-status plant species are anticipated.

Based upon a review of the resources and databases listed above, it was determined that 40 special-status wildlife species have been documented to occur in the project vicinity. Eleven (11) special-status wildlife species were either observed on the July 7 site visit or were determined to have a moderate or high potential to occur within the project area. CNDDB animal listings are shown on Figure 10. These species are discussed below.

Nuttall's woodpecker (*Picoides nuttallii*). USFWS Bird of Conservation Concern. Present. Nuttall's Woodpecker is a year-round resident throughout most of California west of the Sierra Nevada. Typical habitat is oak or mixed woodland, and riparian areas (Lowther 2000). Nesting occurs in tree cavities, principally those of oaks and larger riparian trees. Nuttall's woodpecker also occurs in older residential settings and orchards where trees provide suitable foraging and nesting habitat. This species forages on a variety of arboreal invertebrates. The project area includes suitable trees for foraging and nesting habitat and was observed on the July 7, 2017 site visit.

Long-legged myotis (*Myotis volans*), WBWG High Priority. Moderate Potential. The long-legged myotis ranges across western North America from southeastern Alaska to Baja California and east to the Great Plains and central Texas. This species is usually found in coniferous forests, but also occurs seasonally in riparian and desert habitats. Substrates used as summer day roosts include abandoned buildings, cracks in the ground, cliff crevices, exfoliating tree bark and hollows within snags.. Caves and mines are used as hibernation roosts. Long-legged myotis forage in and around the forest canopy and feed on moths and other soft-bodies insects (WBWG 2017).

The project area contains trees with cavities of sufficient size to potentially provide roosting structure for this species during foraging trips, especially in areas of denser canopy cover. In addition, Santa Rosa Creek provides an adequate water source for long-legged myotis. Therefore, this species has a moderate potential to occur within the project area.

Hoary bat (*Lasiurus cinereus*), WBWG Medium Priority. Moderate Potential. Hoary bats are highly associated with forested habitats in the western United States, particularly in the Pacific Northwest. They are a solitary species and roost primarily in foliage of both coniferous and deciduous trees, near the ends of branches, usually at the edge of a clearing. Roosts are typically 10 to 30 feet above the ground. They have also been documented roosting in caves, beneath rock ledges, in woodpecker holes, in grey squirrel nests, under driftwood, and clinging to the side of buildings, though this behavior is not typical. Hoary bats are thought to be highly migratory, however, wintering sites and migratory routes have not been well documented. This species tolerates a wide range of temperatures and has been captured at air temperatures between 0 and 22 degrees Celsius. Hoary bats probably mate in the fall, with delayed implantation leading to birth in May through July. They usually emerge late in the evening to

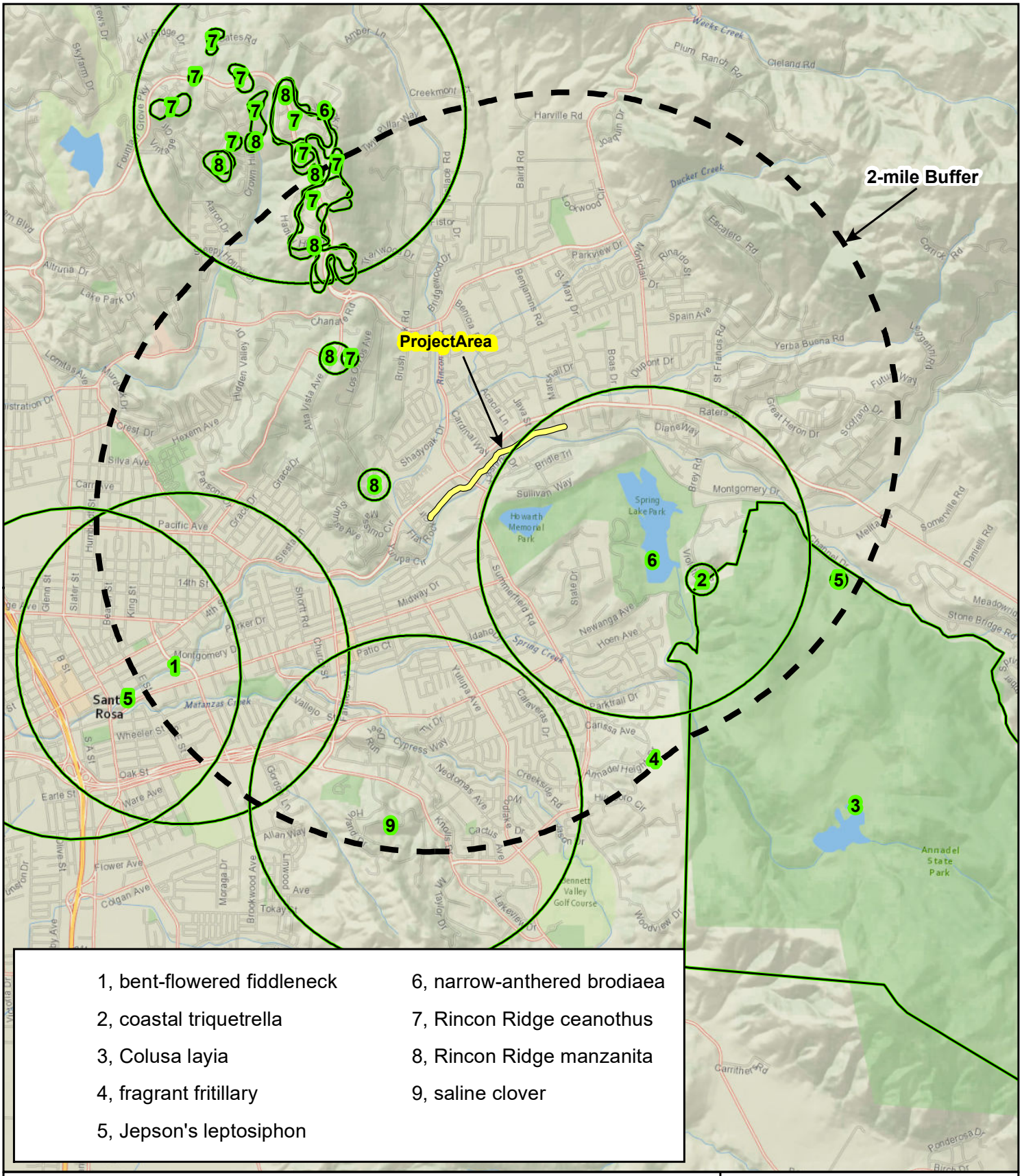


Figure 9. Phase I Special-status Plant Species Documented within 2 Miles of the Project Area

Los Alamos Trunk Sewer Line Replacement
Santa Rosa, California

0 0.5 1 2
Miles

ENVIRONMENTAL CONSULTANTS

Map Prepared Date: 7/14/2017
Map Prepared By: smortensen
Base Source: Esri Streaming - National Geographic
Data Source(s): WRA

Path: L:\Acad 2000 Files\25000\25273\GIS\ArcMap\CNDDB Plants Phase 1.mxd

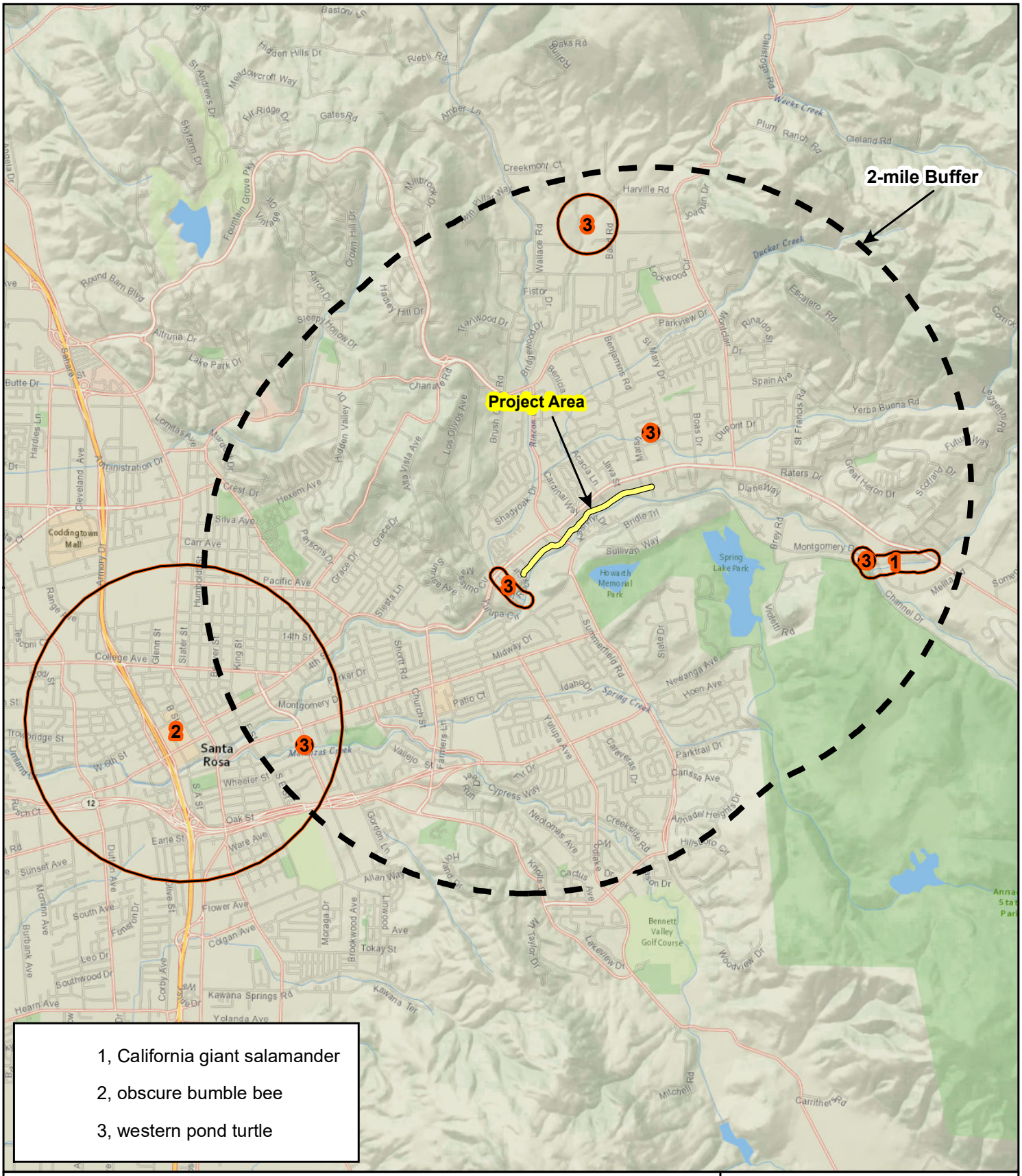


Figure 10 Phase I Special-status Wildlife Species Documented within 2 Miles of the Project Area

Los Alamos Trunk Sewer Line Replacement
Santa Rosa, California

0 0.5 1 2
Miles

ENVIRONMENTAL CONSULTANTS

Map Prepared Date: 7/14/2017
Map Prepared By: smortensen
Base Source: Esri Streaming - National Geographic
Data Source(s): WRA

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forage, typically from just over one hour after sunset to after midnight. This species reportedly has a strong preference for moths, but is also known to eat beetles, flies, grasshoppers, termites, dragonflies, and wasps (WBWG 2017). The project area contains trees with cavities of sufficient size to potentially provide roosting structure for this species, especially in areas of more dense canopy cover. In addition, Santa Rosa Creek provides an adequate water source for hoary bat. Therefore, this species has a moderate potential to occur within the project area.

Pallid bat (*Antrozous pallidus*), CDFW Species of Special Concern, WBWG High Priority. Moderate Potential. Pallid bats are distributed from southern British Columbia and Montana to central Mexico, and east to Texas, Oklahoma, and Kansas. This species occurs in a number of habitats ranging from rocky arid deserts to grasslands, and into higher elevation coniferous forests. They are most abundant in the arid Sonoran life zones below 6,000 feet, but have been found up to 10,000 feet in the Sierra Nevada. Pallid bats often roost in colonies of between 20 and several hundred individuals. Roosts are typically in rock crevices, tree hollows, mines, caves, and a variety of man-made structures, including vacant and occupied buildings. Tree roosting has been documented in large conifer snags (e.g., ponderosa pine), inside basal hollows of redwoods and giant sequoias, and within bole cavities in oak trees. They have also been reported roosting in stacks of burlap sacks and stone piles. Pallid bats are primarily insectivorous, feeding on large prey that is usually taken on the ground but sometimes in flight. Prey items include arthropods such as scorpions, ground crickets, and cicadas (WBWG 2017). The project area contains trees with cavities of sufficient size to potentially provide roosting structure for this species, especially in areas of denser canopy cover. In addition, Santa Rosa Creek provides an adequate water source for pallid bat. Therefore, this species has a moderate potential to occur within the project area.

White-tailed kite (*Elanus leucurus*). CDFW Fully Protected Species. Moderate Potential. The white-tailed kite is resident in open to semi-open habitats throughout the lower elevations of California, including grasslands, savannahs, woodlands, agricultural areas and wetlands. Vegetative structure and prey availability seem to be more important habitat elements than associations with specific plants or vegetative communities (Dunk 1995). Nests are constructed mostly of twigs and placed in trees, often at habitat edges. Nest trees are highly variable in size, structure, and immediate surroundings, ranging from shrubs to trees greater than 150 feet tall (Dunk 1995). This species preys upon a variety of small mammals, as well as other vertebrates and invertebrates. The project area provides trees of suitable size for nesting as well as nearby foraging habitat. However, no raptor nests were observed on the July 7 site visit. This species has a moderate potential to occur within the project area.

Vaux's swift (*Chaetura vauxi*), CDFW Species of Special Concern. Moderate Potential. The Vaux's swift is a summer resident in California, breeding on the coast from central California northward and in the Cascades and Sierra Nevada. Nesting occurs in large, accessible, chimney-like tree cavities that allow birds to fly within the cavity directly to secluded nest sites. Such cavities usually occur in conifers, especially old-growth redwoods (Shuford and Gardali 2008). Chimneys and similar manmade substrates are also used for nesting. This species is highly aerial and forages widely for insects in areas of open airspace. During migration, nocturnal roosting occurs communally and favored sites may host thousands of individuals. The project area is adjacent to creek habitat typically used by this species. The project area contains trees with cavities of sufficient size to support nesting by this species and there are documented occurrences of this species nearby, including nesting (eBird 2017, Madrone Audubon Society 1995). This species has a moderate potential to occur within the project area.

Yellow warbler (*Setophaga petechia*), CDFW Species of Special Concern, USFWS Bird of Conservation Concern. Moderate Potential. The yellow warbler is a neotropical migrant bird that is widespread in North America, but has declined throughout much of its California breeding range. The Brewster's (*brewsteri*) subspecies is a summer resident and represents the vast majority of yellow warblers that breed in California. West of the Central Valley, typical yellow warbler breeding habitat consists of dense riparian vegetation along watercourses, including wet meadows, with willow growth especially being favored (Shuford and Gardali 2008). Insects comprise the majority of the diet. The project area contains a small amount of riparian willow habitat that may provide nesting habitat for this species. This species has been documented nearby and nesting within the vicinity of the project area (eBird 2017, Madrone Audubon Society 1995). Therefore this species has a moderate potential to occur within the project area.

Yellow-breasted chat (*Icteria virens*), CDFW Species of Special Concern. Moderate Potential. The yellow-breasted chat is a generally uncommon summer resident that occurs throughout California. It is an aberrantly large member of the wood-warbler family (*Parulidae*). Breeding habitat consists of early successional-type riparian habitats where a dense understory of thickets and tangles forms below an open canopy. Plant species typically used for nesting include blackberry, wild grape, and willows (Shuford and Gardali 2008). Though males often sing from exposed perches in trees, this species is generally secretive and difficult to observe. The project area contains trees with blackberry habitat below that is sufficient for this species' nesting habitat requirements. This species has been documented nearby and nesting within the vicinity of the project area (eBird 2017, Madrone Audubon Society 1995). Therefore yellow-breasted chat has a moderate potential to occur within the project area.

Oak titmouse (*Baeolophus inornatus*). USFWS Bird of Conservation Concern. Moderate Potential. This relatively common species is year-round resident throughout much of California including most of the coastal slope, the Central Valley and the western Sierra Nevada foothills. Its primary habitat is woodland dominated by oaks. Local populations have adapted to woodlands of pines and/or junipers in some areas (Cicero 2000). The oak titmouse nests in tree cavities, usually natural cavities or those excavated by woodpeckers, though they may partially excavate their own (Cicero 2000). Seeds and arboreal invertebrates make up the birds' diet. Suitable oak trees and riparian habitat for nesting and foraging are present within the project area. However, few records exist for this species in the vicinity of the project area (eBird 2017, Madrone Audubon Society 1995). Therefore, this species has a moderate potential to occur within the project area.

Western pond turtle (*Actinemys marmorata*), CDFW Species of Special Concern. Moderate Potential. The western pond turtle is the only native freshwater turtle in California. This turtle is uncommon to common in suitable aquatic habitat throughout California, west of the Sierra-Cascade crest and Transverse Ranges. Western pond turtles inhabit perennial aquatic habitats, such as lakes, ponds, rivers, streams, and canals that provide submerged cover and suitable basking structures, such as rocks and logs (Zeiner et. al. 1990). Western pond turtles prefer to nest on unshaded upland slopes close to their aquatic habitat, and hatchlings require shallow water with relatively dense emergent and submergent vegetation for foraging for aquatic invertebrates (Thomson et al. 2016). Though primarily aquatic, western pond turtle may disperse through the Project via the adjacent Santa Rosa Creek. Therefore, this species has a moderate potential to occur within the project area.

Allen's hummingbird (*Selasphorus sasin*). USFWS Bird of Conservation Concern. Moderate Potential. Allen's hummingbird, common in many portions of its range, is a summer resident along the majority of California's coast and a year-round resident in portions of coastal southern California and the Channel Islands. Breeding occurs in association with the coastal fog belt, and typical habitats used include coastal scrub, riparian, woodland and forest edges, and eucalyptus and cypress groves (Mitchell 2000). It feeds on nectar, as well as insects and spiders. Trees present within the project area provide potential nesting habitat and flowering species within the project area provide foraging habitat for Allen's hummingbird. This species has also been documented and observed nesting near the project area in the past (CDFW 2017, Madrone Audubon Society 1995). Therefore, this species has a high potential to occur within the project area.

The Project may impact white-tailed kite, Vaux's swift, yellow warbler, yellow-breasted chat, oak titmouse, Allen's hummingbird, Nuttall's woodpecker, and non-special-status birds protected by MBTA and CFGC by modifying nesting habitats or by causing disturbance of a sufficient level to cause abandonment of an active nest. Impacts to these species and their habitats could occur during the removal of vegetation, trenching, or other ground-disturbing activities. These activities could result in the direct removal or destruction of active nests, as well as generate audible, vibratory and/or visual disturbances that result in nest abandonment.

The direct removal/destruction of active nests due to project activities or disturbance to breeding birds sufficient to result in the abandonment of active nests is a potentially significant impact under CEQA. Implementation of mitigation measure BIO1 these impacts would be less than significant.

The project area contains trees with foliage and possible cavities that may provide roost habitat to special-status bat species documented in the vicinity and outlined in Appendix C: long-legged myotis, hoary bat, and pallid bat. Impacts to these species and their roost habitats could occur during the removal of trees within the project area. These activities could result in the direct removal or destruction of a roost and/or maternity roost. Project activities may also create audible, vibratory and/or visual disturbances which cause maternity roosting bats to abandon their roost site.

Activities that result in the direct removal of active roosts or disturbance to maternity roosting bats sufficient to result in the abandonment of the roost is a potentially significant impact under CEQA. Mitigation measure BIO2 will reduce potential impacts to roosting bats to less than significant.

The project area is adjacent to Santa Rosa Creek, where western pond turtle (*Actinemys marmorata*; WPT) has been documented to occur (CDFW 2017). WPT may disperse through the project area occasionally to search for suitable habitat, especially when conditions in Santa Rosa Creek are dry and turtles search for more suitable habitat. Project activities may impact WPT and other non-special-status wildlife via open trenches used for project pipe placement and/or replacement.

Activities that result in injuring WPT through accidental dispersal into open trenches is a potentially significant impact under CEQA. Mitigation measure BIO3 reduces impacts to WPT and non-special-status wildlife to less than significant.

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

NI Sensitive biological communities include habitats that fulfill special functions or have special values, such as wetlands, streams, or riparian habitat. These include:

- Waters of the United States: The U.S. Army Corps of Engineers (Corps) regulates Waters of the United States under Section 404 of the Clean Water Act. Waters of the U.S. are defined in the Code of Federal Regulations (CFR) as waters susceptible to use in commerce, including interstate waters and wetlands, all other waters (intrastate waterbodies, including wetlands), and their tributaries (33 CFR 328.3). Areas that are inundated at a sufficient depth and for a sufficient duration to exclude growth of hydrophytic vegetation are subject to Section 404 jurisdiction as other waters and are often characterized by an ordinary high water mark (OHWM). Other waters or non-wetland waters generally include lakes, rivers, and streams. The placement of fill material into Waters of the U.S generally requires an individual or nationwide permit from the Corps under Section 404 of the Clean Water Act.
- Waters of the State: The term Waters of the State is defined by the Porter-Cologne Act as any surface water or groundwater, including saline waters, within the boundaries of the state, and under this Act the Regional Water Quality Control Board (RWQCB) protects all waters in its regulatory scope and has special responsibility for wetlands, riparian areas, and headwaters. These waterbodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. RWQCB jurisdiction under Porter-Cologne includes isolated wetlands and waters that may not be regulated by the Corps under Section 404 and stream banks between the ordinary high water mark and top of bank. Waters of the State within federal jurisdiction are regulated by the RWQCB under the State Water Quality Certification Program which regulates discharges of fill and dredged material under Section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act. Projects that require a Corps permit, or fall under other federal jurisdiction and have the potential to impact Waters of the State, are required to comply with the terms of the Section 401 Water Quality Certification determination. If a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a discharge to Waters of the State, the RWQCB has the option to regulate the dredge and fill activities under its state authority in the form of Waste Discharge Requirements.
- Aquatic and Riparian Habitat: Work in or near aquatic and riparian habitat along streams and lakes is regulated by the California Department of Fish and Wildlife (CDFW) under Fish and Game Code 1602. Work that will or may cause ground disturbance and/or removal of riparian vegetation within streams, stream banks, or 25-50 feet from top of bank (in unvegetated stream segments) or from outer edge of riparian vegetation may require a Streambed Alteration Agreement with CDFW.
- Other Sensitive Biological Communities: Other sensitive biological communities not discussed above include habitats that fulfill special functions or have special values. Natural communities considered sensitive are those identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife.

Habitats present in the Segment 1 alignment are discussed below:

Developed/landscaped: The project area contains approximately 2.9 acres of developed and landscaped areas. Developed and landscaped areas within the project area include paved areas including existing roads, and parking lots, with planted and landscaped vegetation, gravel roads and driveways, and ruderal backyards of existing residences. These areas are of low habitat value. Vegetative cover is dominated by planted and maintained ornamental tree species including red maple (*Acer rubrum*), Deodar cedar (*Cedrus deodara*) Chinese pistache (*Pistacia chinensis*), with occasional native trees including coast live oak (*Quercus agrifolia*), and valley oak (*Quercus lobata*). Ornamental shrubs including oleander (*Nerium oleander*), and rosemary (*Rosmarinus officinalis*) and non-native, invasive shrub species, including French broom (*Genista monspessulana*) are also present. The herbaceous layer, where present consists of ornamental forbs and grasses such as African iris (*Dietes iriodes*), and fountain grass (*Pennisetum* sp.) and non-native annual grasses including slim oat (*Avena barbata),* and annual dogtail grass (*Cynosorus echinatus*). Developed/landscaped areas are not considered sensitive. However, this community does contain heritage and street trees considered protected per the City of Santa Rosa Tree Ordinance.

Ruderal herbaceous grassland: The project area contains approximately 0.56 acre of ruderal/disturbed areas. Ruderal/disturbed areas within the project area include open grassy fields which are routinely mowed and/or disced. Vegetative cover within these areas is typically dominated by common non-native invasive grasses and forbs including slim oat, ripgut brome (*Bromus diandrus*), Harding grass (*Phalaris aquatica*), rose clover (*Trifolium hirtum*), chicory (*Cichorium intybus*), fennel (*Foeniculum vulgare*), wild radish (*Raphanus sativus*), field bindweed (*Convolvulus arvensis*), and hairy cat's ear (*Hypochaeris radicata*), with occasional disturbance tolerant native forbs including Spanish lotus (*Acmispon americanus*), and California poppy (*Eschscholzia californica*). Scattered individual coyote brush (*Baccharis pilularis* ssp. *consanguinea*) shrubs, small-diameter, non-heritage trees including coast live oak, are also present within this community. Ruderal/disturbed areas provide limited habitat for special-status species, and this community is not considered sensitive.

Coast live oak woodland: (*Quercus agrifolia* Woodland Alliance). G5, S4. The project area contains approximately 0.2 acre of coast live oak woodland. Coast live oak woodland is known from the outer and inner Coast Ranges, Transverse Ranges, and southern coast from northern Mendocino County south to San Diego County. This vegetation community is typically located on terraces, canyon bottoms, slopes, and flats underlain by deep, well-drained sandy or loam substrates with high organic content (CNPS 2017a).

Coast live oak woodland occurs in a small peripheral patch in an upland setting in the western portion of the project area. The overstory is dominated by coast live oak with occasional California bay. Within the project area, this community is relatively disturbed as it is traversed by the existing concrete trail. The understory is relatively open, and edges along the concrete trail appear to be routinely mowed or weed-wacked. Common understory shrub species include Himalayan blackberry, and poison oak (*Toxicodendron diversilobum*). The herbaceous layer is dominated by non-native annual grasses and forbs including ripgut brome, slim oat, Smilo grass (*Stipa miliacea*), and English ivy (*Hedera helix*). Coast live oak woodland has a sensitivity ranking of G5, S4 indicating that it is globally secure and apparently secure in California, and is thus not considered a sensitive community. However, this community contains mature trees large enough to be considered heritage trees per the City of Santa Rosa.

Riparian red willow thicket (*Salix laevigata* Woodland Alliance), G3, S3, CDFW Jurisdiction*:* The project area contains approximately 0.07 acre of riparian red willow (*Salix laevigata*) thicket, a sensitive habitat. Red willow thickets are known throughout California from the Central California Coast and Coast Ranges, Great Valley, Mojave Desert, Northern California Coast, Northern California Interior Coast Ranges, Sierra Nevada, Sierra Nevada Foothills, Southern Great Basin, Southern California Coast, and Southern California Mountains and Valleys, from Shasta to San Diego County. This vegetation alliance is typically situated in ditches, floodplains, lake edges, and low-gradient depositions along streams (CNPS 2017a).

Red willow thicket in the project area is mapped according to CNPS (2017a) as having red willow greater than 50 percent cover in the tree canopy. This community is mapped in one small peripheral patch outside of the high top-of-bank of the Santa Rosa Creek stream corridor. The bases of the trees that make up this community are located below the top-of-bank, to the south of the project area, and are predominantly growing prostrate along the bank, over the top-of-bank into the project area, with some larger trees simply overhanging the project area. Within the project area, this community is relatively disturbed, and appears to be routinely trimmed back, and mowed to maintain clearance from the existing concrete path. Riparian red willow thicket within the project area is dominated by red willow in the tree canopy, with occasional non-native, invasive cherry plum (*Prunus cerasifera*), and an understory dominated by non-native, invasive Himalayan blackberry (*Rubus armeniacus*), and non-native grasses and forbs including ripgut brome (*Bromus diandrus*), slim oat (*Avena barbata*), and moth mullein (*Verbascum blattaria*).

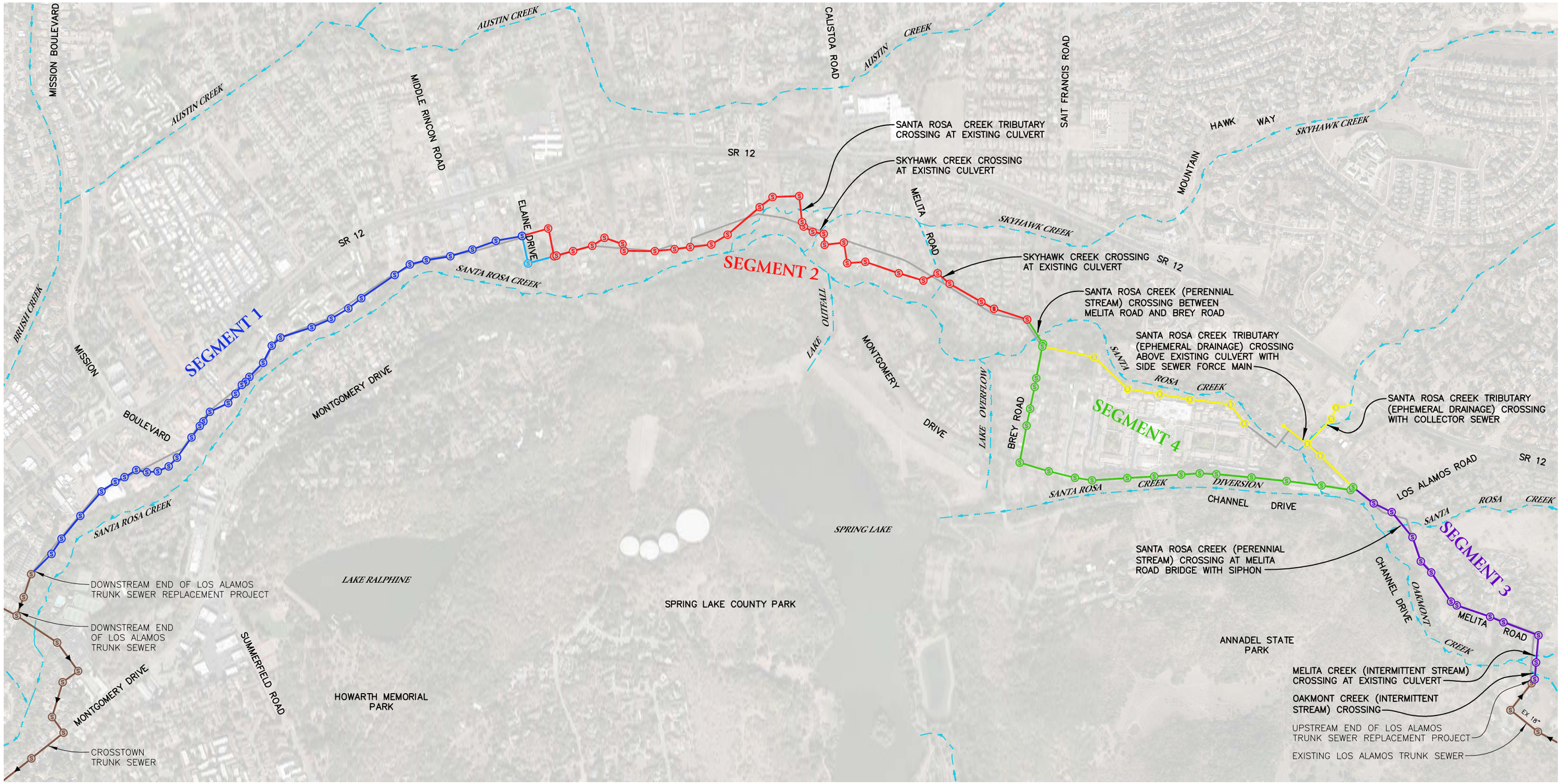
Red willow thickets are reported by the CDFW with a rarity ranking of G3, S3 (CNPS 2017a), indicating that it is considered vulnerable globally and in California. This community is also considered riparian vegetation which would be a sensitive community under Section 1602 of the CFGC.

Red willow thicket is potentially subject to CDFW jurisdiction under Section 1602 of the CFGC. Within the project area, this community is relatively disturbed, and appears to be routinely trimmed back, and mowed to maintain clearance from the existing concrete path. The proposed project will potentially require additional trimming of riparian vegetation to facilitate access. The trunks of riparian trees, including red willow and boxelder are located below the top-of-bank, outside of the project area. Therefore riparian tree removal is not anticipated, and disturbance would likely be limited to trimming lateral branches. Routine trimming of riparian trees will be a temporary and self-mitigating impact, as trimmed willow branches will be allowed to regrow and will naturally re-vegetate the impacted area. Therefore, no CDFW permit or mitigation would be required for trimming riparian vegetation.

Future segments will require stream crossings. No project level assessment was done at this time due to potential minor revisions to future segment alignments and potential changes in species status. A project-level biological assessment will be required for future segments. Future stream crossings are shown on Figure 11.

c. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

NI No wetlands were identified in the Segment 1 alignment.



LEGEND

- PROPOSED SEGMENT 1 TRUNK SEWER ALIGNMENT
- PROPOSED SEGMENT 2 TRUNK SEWER ALIGNMENT
- PROPOSED SEGMENT 3 TRUNK SEWER ALIGNMENT
- PROPOSED SEGMENT 4 TRUNK SEWER ALIGNMENT
- ALTERNATE TRUNK SEWER REPLACEMENT
- MAJOR COLLECTOR SEWER REQUIRING MODIFICATION
- EXISTING TRUNK SEWER TO REMAIN
- EXISTING TRUNK SEWER TO BE REPLACED

NORTH
SCALE: 1" = 850'

FIGURE 11

OVERALL PLAN CREEK CROSSING LOCATIONS

CITY OF SANTA ROSA LOS ALAMOS TRUNK SEWER REPLACEMENT

NOVEMBER 2017

Brelje & Race
CONSULTING CIVIL ENGINEERS
475 Aviation Blvd. • Suite 120 • Santa Rosa, CA 95403 • 707-576-1322
www.brce.com

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

NI The project site does not generally support wildlife nursery sites. Segment 1 will not impact nursery sites. Later segments have the potential to impact Santa Rosa Creek associated with creek crossings that could impact adult or juvenile steelhead, known to be present. Those segments will be subject to a project-level environmental review in the future. Because of the level of development in the Segment 1 project area and surrounding commercial and residential neighborhoods, the length of time the project area has been developed, and continued intensive maintenance of the project area, the project area is not characteristic of a wildlife migratory corridor.

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

LSM On July 10, and July 19, 2017, WRA, Inc. conducted a comprehensive tree survey[9] for Segment 1 that provides a survey of all trees within the construction limits and also included a survey of protected trees outside of the limit with driplines and/or root zones overhang the construction limits. Tree survey results are shown on Figure 12.

The City of Santa Rosa recognizes the aesthetic, environmental, and economic benefits mature trees provide to the citizens of the City. Chapter 17-24, "Trees" of the Santa Rosa City Code (Tree Ordinance) regulates the protection of certain trees on public and private properties within the City limits. The Tree Ordinance defines a "heritage tree" as:

- valley oak (*Quercus lobata*), blue oak (*Q. douglasii*), or buckeye (*Aesculus californica*) 19 inches circumference at breast height (measured at 4.5 feet above ground; or 6 inches diameter at breast height [DBH]) or greater;
- Pacific madrone (*Arbutus menziesii*) 38 inches circumference (12 inches DBH) or greater;
- coast live oak (*Quercus agrifolia*), black oak (*Q. kelloggii*), Oregon oak (*Q. garryana*), canyon live oak (*Q. chrysolepis*), interior live oak (*Q. wislizenii*), red alder (*Alnus rubra* [*A. oregona*]), or white alder (*A. rhombifolia*) 57 inches circumference (18 inches DBH) or greater; or
- Coast redwood (*Sequoia sempervirens*), California bay (*Umbellularia californica*), Douglas fir (*Pseudotsuga menziesii*), or big-leaf maple (*Acer macrophyllum*) 75 inches circumference (24 inches DBH) or greater.

A Tree Permit is generally required for the removal, alteration or relocation of any "heritage tree", "protected tree" (i.e. any tree, including a heritage tree, designated to be preserved on an approved development plan or as a condition of approval of a tentative map, a tentative parcel map, or other development approval issued by the City), or "street tree" (i.e. any tree having a single trunk circumference greater than 6.25 inches or a diameter greater than 2 inches, a height of more than six feet, and one half or more of its trunk is within a public right

[9] Tree Survey Report Los Alamos Trunk Sewer Replacement Phase 1. WRA, Inc. September 2017.

of way or within 5 feet of the paved portion of a City street or a public sidewalk), except as exempted in Section 17-24.030 of the Tree Ordinance.

A total of 130 trees were inventoried during the assessment, including 25 heritage trees, 33 street trees, 51 non-heritage trees, 18 exempt trees, and 3 exempt street trees. Heritage trees present are predominantly coast live oak, but also include valley oak, black oak, California buckeye, California bay, and Coast redwood. Street trees present within the Project Area are predominantly Chinese pistache (*Pistacia chinensis*) and red maple (*Acer rubrum*), but also include Crape myrtle (*Lagerstroemia indica*), and Deodar cedar (*Cedrus deodara*). Other native, non-heritage trees on-site included red willow (*Salix laevigata*), and Northern California black walnut (*Juglans hindsii*). Exempt trees present within the area predominantly cherry plum (*Prunus cerasifera*), but also include other fruit trees such as apple (*Malus sp.*), common pear (*Pyrus communis*), Japanese loquat (*Eriobotrya japonica*), Japanese persimmon (*Diospyros kaki*), peach (*Prunus persica*).

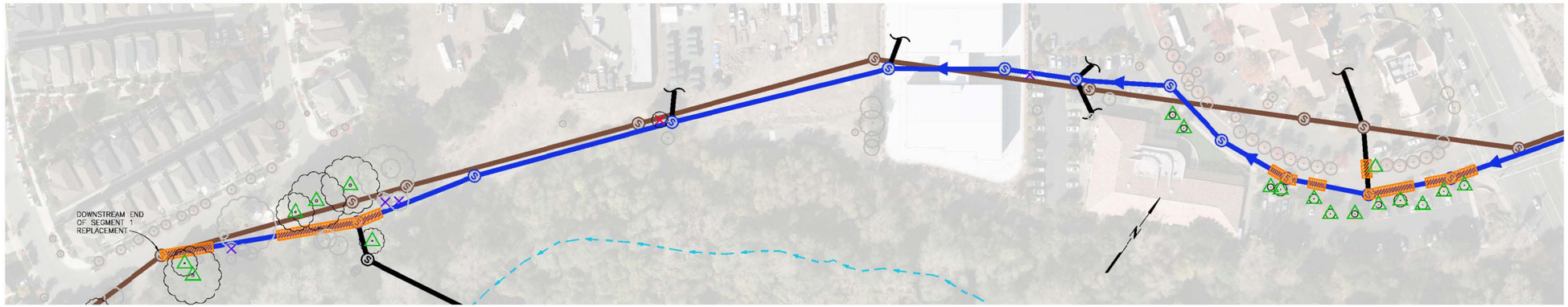
A total of 65 trees could be removed by Segment 1, including eight heritage trees, 17 street trees, 25 non-heritage trees, 13 exempt trees, and two exempt street trees (this reflects a maximum potential for trees that could be removed, per the arborist report). As indicated on Figure 12, special trenching areas have been established within root zones of protected trees in an effort to preserve them. Under the Tree Ordinance, trees, other than heritage trees, situated within City owned parks and other City-owned or controlled places do not require a tree removal permit when altered, removed, or relocated by City employees or by contractors retained by the City. Mitigation Measure BIO4 includes use of an arborist during construction in the identified zones to reduce tree loss, includes replacement trees consistent with the City's tree ordinance and reduces tree loss to a level of less than significant by being consistent with the City's ordinance. Actual tree loss is anticipated to be much less than the maximum potential loss of trees reflected in the arborist report.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

NI The project location is not part of an adopted Habitat Conservation Plan or Natural Community Conservation Plan.

Cumulative Impacts

There are no adverse cumulative environmental impacts to biological resources resulting from implementation of the proposed project.

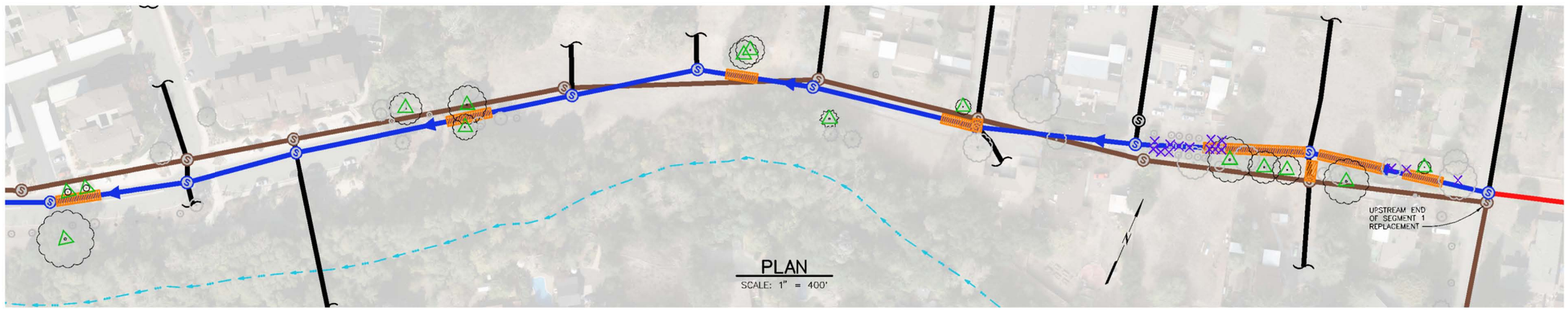


SEE MIDDLE LEFT

SEE ABOVE RIGHT

SEE BELOW LEFT

SEE MIDDLE RIGHT



PLAN
SCALE: 1" = 400'

NOTES

1. EXEMPT TREES AND GENERALLY LESS THAN 2–INCHES IN DIAMETER NOT SHOWN.
2. TREES SHOWN IN BLACK WERE IDENTIFIED AS STREET OR HERITAGE TREES N BIOLOGICAL REPORT PREPARED BY WRA, INC. AUGUST 2017. NOT ALL TREES ADJACENT TO THE PROJECT WERE IDENTIFIED/CLASSIFIED.

LEGEND

- PROPOSED SEGMENT 1 TRUNK SEWER ALIGNMENT
- EXISTING TRUNK SEWER
- EXISTING STREET OR HERITAGE TREE, SEE NOTE 2
- EXISTING EXEMPT OR NON–IDENTIFIED TREE, SEE NOTE 2
- HERITAGE OR STREET TREE PROPOSED TO BE REMOVED, MITIGATE PER CITY TREE ORDINANCE
- TREE PROPOSED TO BE REMOVED, MITIGATE AT 1:1
- HERITAGE OR STREET TREE PROPOSED TO BE PROTECTED
- TRENCHING PROPOSED WITHIN 'ROOT ZONE' OF PROTECTED TREE TO REMAIN

Brelje & Race CONSULTING ENGINEERS
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FIGURE 12

SEGMENT 1 PLANNED TREE REMOVAL & PROTECTION

CITY OF SANTA ROSA LOS ALAMOS
TRUNK SEWER REPLACEMENT

NOVEMBER 2017

Mitigation Measures

BIO1 Special-Status and Non-Status Nesting Birds: The following measures shall be implemented to avoid impacts to white-tailed kite, Vaux's swift, yellow warbler, yellow-breasted chat, oak titmouse, Allen's hummingbird, Nuttall's woodpecker, and other nesting birds protected by the MBTA and CFGC:

- If ground disturbance or vegetation removal is initiated in the non-breeding season (September 1 through January 31), no pre-construction surveys for nesting birds are required and no adverse impact to birds would result.
- If ground disturbance or removal of vegetation occurs in the breeding bird season (February 1 through August 31), pre-construction surveys shall be performed by a qualified biologist no more than 14 days prior to commencement of such activities to determine the presence and location of nesting bird species. If active nests are present, temporary no-work buffers shall be placed around active nests to prevent adverse impacts to nesting birds. Appropriate buffer distance shall be determined by a qualified biologist and is dependent on species, surrounding vegetation, and topography. Once active nests become inactive, such as when young fledge the nest or the nest is subject to predation, work shall continue in the buffer area and no adverse impact to birds will result.

BIO2 Special-Status Bat Species: The following measures shall be implemented to avoid impacts to special-status bat species:

- Pre-construction roost assessment survey: A qualified biologist shall conduct a roost assessment survey of trees located within the project area. The survey will assess use of the trees and cavities for roosting as well as potential presence of bats. If the biologist finds no evidence of, or potential to support bat roosting, no further measures are recommended. If evidence of bat roosting is present, additional measures described below shall be implemented:
- Work activities outside the maternity roosting season: If evidence of bat roosting is discovered during the pre-construction roost assessment and tree removal is planned August 1 through February 28 (outside the bat maternity roosting season), a qualified biologist shall implement passive exclusion measures to prevent bats from re-entering the tree cavities. After sufficient time to allow bats to escape and a follow-up survey to determine if bats have vacated the roost, tree removal may continue and impacts to special-status bat species will be avoided.
- Work activities during the maternity roosting season: If a pre-construction roost assessment discovers evidence of bat roosting in the trees during the maternity roosting season (March 1 through July 31), and determines maternity roosting bats are present, removal of maternity roost trees shall be avoided during the maternity roosting season or until a qualified biologist determines the roost has been vacated.

BIO3 Western Pond Turtle: To avoid impacts to western pond turtle through accidental entrapment and/or injury, all open trenches created through project activities shall be covered during non-work hours.

BIO4 An arborist shall be on-site for earth moving activities in special trenching zones identified in the project plans and specifications with the goal of minimizing impacts to roots in those zones to retain the trees. If, in the arborist's opinion, the tree would be compromised by the construction activities, the tree shall be removed and mitigated for per the City's tree ordinance.

A tree removal permit will be required for any alteration, removal or relocation of heritage or protected trees. The City of Santa Rosa may require replacement plantings as a condition of approval in order to mitigate for the loss of functions provided by trees to be removed including shade, erosion control, groundwater replenishment, visual screening, and wildlife habitat.

V CULTURAL RESOURCES

Section 15064.5 of CEQA includes a broad definition of historical and archaeological resources. CEQA defines such resources as: 1) a resource listed in or determined to be eligible by the State Historical Resources Commission for listing in the California Register of Historical Resources; 2) a resource included in a local register of historical resources or identified as significant in an historical resource survey; and/or 3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided the determination is supported by substantial evidence, including the following: a) is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage, b) is associated with the lives of persons important in our past, c) 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, or d) has yielded or may be likely to yield information important in prehistory or history[10].

Paleontology is the study of fossils—the recognizable remains and traces of once-living, non-human organisms that are incorporated into the Earth's rocks. Shells, bones, leaves, tracks, trails, and a variety of other remains constitute a record of the history of life on the planet dating back 3.5 billion years[11]. Fossils provide the basic data to establish a relative time scale of the physical history of the Earth. Fossils are found in a definite succession in sedimentary and slightly metamorphosed rocks. Fossils are generally most common in rocks formed in relatively shallow marine waters. In freshwater environments, fossils of animals are usually most abundant in rocks formed in lakes. Fossils tend to be least abundant in rocks that formed on dry land because dead plants and animals ordinarily are exposed to the air for long periods of time (precluding fossiliferous formation). Most fossils are relatively small and are collected either by picking up loose specimens on weathered rocks surfaces or by using simple hand tools.

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	□	■	□	□
b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	□	■	□	□
c. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	□	■	□	□

[10] California Environmental Quality Act Guidelines. §15064.5(a).
[11] Paleontological Collecting, National Academy Press. Washington, DC. 1987.

Analysis

a. Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

LSM Tom Origer & Associates conducted a cultural resources investigation for Segment 1[12]. The entire Segment 1 alignment was examined by a records search and a mixed-strategy field survey was completed by Janine Origer on May 9, 2017, by Julia Franco and Shane Davis on September 5, 2017, and by Eileen Barrow and Taylor Alshuth on September 26, 2017. No buildings that meet the criteria for the California Register or National Register will be impacted by the Segment 1. No historical resources were observed.

In the unlikely event that historical resources are discovered during construction work associated with Segment 1, Mitigation Measure CR1 will reduce such impact to a less than significant level.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

LSM Tom Origer & Associates conducted a cultural resources investigation for the Segment 1 alignment. The entire Segment 1 alignment was examined by a records search and was examined in the field. Additionally, Tom Origer & Associates contacted the following groups regarding the project:

- State of California's Native American Heritage Commission
- Federated Indians of Graton Rancheria
- Kashia Band of Pomo Indians of Stewarts Point
- Lytton Rancheria of California
- Middletown Rancheria of Pomo Indians of California
- Mishewal-Wappo Tribe of Alexander Valley.

The Native American Heritage Commission replied with a letter dated September 19, 2017, which indicated that the sacred land file has no information about the presence of Native American cultural resources in the immediate project area. Responses were received from Lytton Rancheria of California and Middletown Rancheria of Pomo Indians of California requesting a copy of the Historical Resources Assessment when completed. The cultural resources assessment and other relevant project information was sent to those entities requesting it on November 9, 2017.

Brenda Tomaras responded on behalf of the Lytton Rancheria of California on December 17, 2017, by voice message that Lytton Rancheria concurred with standard mitigations for the Segment 1 and requested notification of future segments. The Federated Indians of Graton Rancheria Tribal Historic Preservation Officer, Buffy McQuillen, responded by email on

[12] A Historical Resources Survey for Segment 1 of the Los Alamos Trunk Sewer Replacement Project. Tom Origer & Associates. October 13, 2017.

December 21, 2017, indicating that the Tribe had received the notification and would review the project within ten days. No further contact has been received to date.

No archaeological site indicators were observed or recorded for the Segment 1 alignment. No further archaeological investigation was determined to be necessary by Tom Origer & Associates for Segment 1. However, in the unlikely event that archaeological resources are discovered during construction work, Mitigation Measure CR1 will reduce such impact to a less than significant level.

An archival assessment was conducted for segments 2-4 of the project to determine if historical resources are known to be present[13]. Archival research revealed the presence of 26 previously recorded historical resources in proximity to the project area. Segment 2 has seven previously recorded sites in proximity to the proposed alignment. Segment 3 has four and Segment 4 has four previously recorded sites. Segments 2-4 will require a site-specific historical resources study when they undergo CEQA review in the future.

c. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

LSM Construction of the project is not anticipated to disturb any paleontological resources. However, the remote possibility exists that paleontological indicators might be discovered during construction of the facilities. Mitigation Measure CR2 will reduce such impact to a less than significant level.

d. Would the project disturb any human remains, including those interred outside of formal cemeteries?

LSM There are no known human remains in the project area. However, the remote possibility exists that human remains could be discovered during construction. In such an event, Mitigation Measure CR3 will reduce such impact to a less than significant level.

Cumulative Impacts

There are no adverse cumulative environmental impacts to cultural resources resulting from implementation of the proposed project.

Mitigation Measures

CR1 The project plans and specifications shall provide that in the event prehistoric-era or historic-era archaeological site indicators are unearthed during the course of grading, excavation and/or trenching, all ground disturbing work in the vicinity of the discovery shall cease and all exposed materials shall be left in place. Prehistoric-era archaeologic site indicators could include chipped chert and obsidian tools and tool manufacture waste flakes, grinding implements such as mortars and pestles, and locally darkened soil containing the previously mentioned items as well as fire altered stone and dietary debris such as bone and shellfish

[13] Archival-level Cultural Resources Study for Los Alamos Trunk Sewer Replacement Project Phase 2, 3 and 4. Tom Origer & Associates. October 13, 2017.

fragments. Historic-era archaeologic site indicators could include items of ceramic, glass and metal, and features such as structural ruins, wells and pits containing such artifacts. After cessation of excavation, the contractor shall immediately contact the City. The City shall contact a qualified professional archaeologist immediately after the find. Such archaeologist shall conduct an evaluation of significance of the site, and assess the necessity for mitigation. The contractor shall not resume construction activities until authorization to proceed is received from the City.

CR2 The project plans and specifications shall provide that in the event paleontological site indicators are unearthed during the course of grading, excavation and/or trenching, all ground disturbing work in the vicinity of the discovery shall cease and all exposed materials shall be left in place. After cessation of excavation, the contractor shall immediately contact the City. The City shall contact a qualified professional geologist or paleontologist immediately after the find. Such consultant shall conduct an evaluation of significance of the site, and assess the necessity for mitigation. The contractor shall not resume construction activities until authorization to proceed is received from the City.

CR3 If human remains are encountered during grading, excavation or trenching, all construction activity shall cease and the contractor shall immediately contact the City and the Sonoma County Coroner's Office. If the remains are determined by the Coroner's Office to be of Native American origin, the Native American Heritage Commission shall be contacted and the procedures outlined in CEQA §15064.5 (d) and (e) shall be implemented by the City or its designee.

VI GEOLOGY & SOILS

RGH conducted a site reconnaissance and review of selected published geologic data for all segments of the project to determine the geotechnical feasibility of the project. This section summarizes the RGH report[14].

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	□	□	■	□
ii. Strong seismic ground shaking?	□	□	■	□
iii. Seismic-related ground failure, including liquefaction?	□	□	■	□
iv. Landslides?	□	□	■	□
b. Would the project result in substantial soil erosion or the loss of topsoil?	□	■	□	□
c. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	□	□	□	■
d. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	□	□	□	■
e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	□	□	□	■

[14] Preliminary Geologic and Geotechnical Study Report—Los Alamos Trunk Sewer Replacement, Santa Rosa, California. RGH Consultants, Inc. November 7, 2017.

Analysis

a. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

LS RGH did not observe landforms within the area that would indicate the presence of active faults and the site is not within a current Alquist-Priolo Earthquake Fault Zone. The risk of fault rupture along the alignment is low.

ii. Strong seismic ground shaking?

LS The deformational processes and seismicity of the coast ranges immediately north of San Francisco Bay are dominated by the San Andreas fault system, a series of right lateral strike slip faults that include the San Andreas, Hayward-Rodgers Creek, Healdsburg, Maacama, Concord- Green Valley, Cordelia, Konocti, Hunting Creek, and West Napa faults. The San Andreas Fault System is responding to the strain produced by the relative motions of the Pacific and North American Tectonic Plates. This strain is relieved by right lateral strike slip faulting on the San Andres and related faults. The effects of this deformation include mountain building, basin development, and generation of earthquakes. The proposed alignment is not within a current Alquist-Priolo Earthquake Fault Zone for active faults as defined by California Geologic Survey (CGS). CGS defines active faults as those exhibiting evidence of surface displacement during Holocene time (last 11,000 years). The nearest active earthquake fault is the Healdsburg-Rogers Creek fault located approximately 1½ miles southwest of the western end of the alignment.

Earthquakes of magnitude 6.5 or greater in the Coast Ranges immediately north of San Francisco Bay include the 1892 Winters/Vacaville Earthquakes (M6.6), associated with a system of low angle thrust faults along the western margin of Great Valley; the 1898 Mare Island Earthquake (M6.4), at the southern end of the Rodgers Creek fault; the 1906 San Francisco Earthquake (M7.8); and the 1923, 1994, and 1995 Cape Mendocino Earthquakes (M7.2, M7.1, and M6.8, respectively) on the northern segment of the San Andreas fault. In addition, the epicenters of the 1969 Santa Rosa Earthquake (M5.6) at the northern end of the Rodgers Creek fault occurred within three miles of the pipeline alignment.

The Rodgers Creek fault is a right lateral, en echelon, strike slip fault. It is believed to comprise the northern continuation of the Hayward fault zone. The surface expression of the fault extends from just north of Highway 37 on the south to approximately 3½ miles southeast of Healdsburg on the north. Geomorphic features in late Holocene alluvial deposits, including offset and beheaded streams, shutter ridges, pressure ridges, sag ponds and fault scarps, are indicative of Holocene activity. In addition, the epicenters of the 1969 Santa Rosa Earthquakes and the 1898 Mare Island Earthquake were located on the Rodgers Creek fault. As a result, the California Geological Survey (CGS) has zoned the Rodgers Creek fault as active. CGS has calculated a Mmax for the Rodgers Creek fault of 7.0.

The site is within an area affected by strong seismic activity with several northwest-trending Earthquake Fault Zones existing in close proximity to and within several miles of the alignment. Therefore, future seismic shaking should be anticipated along the alignment. It will be necessary to design and construct the proposed pipeline in strict adherence with current standards for earthquake-resistant construction. Risk to the pipeline is considered to be less than significant.

iii. Seismic-related ground failure, including liquefaction?

LS As indicated in (ii.) above, seismic ground shaking could occur in the project area. Liquefaction is a rapid loss of shear strength experienced in saturated, predominantly granular soils below the groundwater level during strong earthquake ground shaking due to an increase in pore water pressure. The occurrence of this phenomenon is dependent on many complex factors including the intensity and duration of ground shaking, particle size distribution and density of the soil. The proposed alignment is predominantly located within an area delineated as being highly susceptible to liquefaction. Therefore, RGH has determined that there is the potential for liquefaction along the proposed alignment. However, the hazard of liquefaction is no greater than it is for the existing pipeline and is less than significant.

Seismic slope failure or lurching/lateral spreading is a phenomenon that occurs during earthquakes when slopes or man-made embankments yield and displace in the unsupported direction. This phenomenon can occur in tandem with liquefaction. Segments of the pipeline alignment are adjacent to creeks, and there are three unculverted creek crossings. Creek banks are sloping conditions where lurching/lateral spreading occurs. Therefore, there is potential for lurching/lateral spreading along the pipeline alignment. However, the hazard of lurching/lateral spreading is no greater than it is for the existing pipeline and is less than significant..

iv. Landslides?

LS Published maps do not indicate large-scale slope instability along the proposed alignment. There are potential landslides at the eastern end of the alignment, adjacent to Melita Drive at Los Alamos Road. The landslides are shown to be on the southern side of the creek and may underlie Channel Drive. RGH did not observe any landslides along the alignment during their reconnaissance.

The landslide maps and RGH observations do not indicate large scale slope instability along the alignment. Therefore, the risk of landslides impacting the proposed pipeline alignment is less than significant.

b. Would the project result in substantial soil erosion or the loss of topsoil?

LSM The planned alignment for all segments extends primarily over relatively level to gently sloping terrain, and will run under paved public roads and private properties. The creek crossings will be constructed near or on moderately to steeply sloping banks. The vegetation consists of seasonal grasses, shrubs, and dense trees along Santa Rosa and Oakmont Creek. Drainage consists of overland flow over the ground surface that concentrates in man-made drainage elements such as roadside gutters and storm drains, and natural drainage elements such as

swales and the Santa Rosa and Oakmont Creeks. Surfaces will be restored to existing conditions once construction is complete to ensure there is no long-term erosion.

There is the potential for short-term, construction-related erosion to occur. To ensure erosion is minimized to the extent practicable and does not enter waterways, an erosion control plan will be prepared. Mitigation Measure GS1 requires that those actions occur and will reduce any potential soil erosion impact to a less than significant level.

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

NI Published geology maps indicate the proposed alignment is underlain predominantly by the following geologic units: Holocene and Pleistocene age Alluvial deposits, undivided (Qt), Holocene age Alluvium, undivided (Qha), Holocene Channels (Qhc), Young Holocene alluvial fan and fluvial terrace deposits (Qhf1), Old Holocene alluvial fan and fluvial terrace deposits (Qtf2), and Pliocene age fluvial and lacustrine deposits of the Humbug Creek (Tgp).

Mapping by the Natural Resources Conservation Service has classified the upper five feet of soil along the proposed alignment as belonging primarily to the Yolo clay loam soil unit. In addition, the alignment will run through the Haire clay loam unit and the Clear Lake loam unit. These soils are classified as a lean clay (CL) according to the United Soil Classification System (USCS) and are said to exhibit medium plasticity (LL = 41, 47, 53, respectively; PI = 22, 24, 27, respectively). Additionally, the soils near the planned creek crossings belong to the Manzanita gravelly silt loam, Positas gravelly loam, and Riverwash soil units. According to the USCS, these units are classified as a clayey gravel (GC), a silty-clayey gravel (GC-GM), and a well graded gravel (GW), respectively. These soils exhibit very low to medium plasticity. The hazard of erosion is low to moderate depending on slope. RGH concluded that it is geotechnically feasible to construct the planned sewer in these soils.

Shoring of the trenches will be required to ensure worker safety, as described in the Project Description.

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

NI As indicated in c.) above, soils at the project site will support the proposed project.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

NI No alternative waste water disposal systems are associated with the project.

Cumulative Impacts

There are no adverse cumulative environmental impacts to geology and soils resulting from implementation of the proposed project.

Mitigation Measures

GS1 The City shall prepare an erosion control plan for the project. Appropriate BMPs will be implemented by the project to minimize construction-related erosion and runoff. Suggested BMPs include, but are not limited to:

- Schedule construction activities during dry weather. Keep grading operations to a minimum during the rainy season (October 15 through April 15).
- Protect and establish vegetation.
- Stabilize construction entrances and exits to prevent tracking onto roadways.
- Protect exposed slopes from erosion through preventative measures. Cover the slopes to avoid contact with storm water by hydroseeding, applying mulch or using plastic sheeting.
- Install straw wattles and silt fences on contour to prevent concentrated flow. Straw wattles should be buried 3 to 4 inches into the soil, staked every 4 feet, and limited to use on slopes that are no steeper than 3 units horizontal to 1 unit vertical. Silt fences should be trenched 6 inches by 6 inches into the soil, staked every 6 feet, and placed 2 to 5 feet from any toe of slope.
- Designate a concrete washout area to avoid wash water from concrete tools or trucks from entering gutters, inlets or storm drains. Maintain washout area and dispose of concrete waste on a regular basis.
- Establish a vehicle storage, maintenance and refueling area to minimize the spread of oil, gas and engine fluids. Use oil pans under stationary vehicles.
- Protect drainage inlets from receiving polluted storm water through the use of filters such as fabrics, gravel bags or straw wattles.
- Check the weather forecast and be prepared for rain by having necessary materials onsite before the rainy season.
- Inspect all BMPs before and after a storm event. Maintain BMPs on a regular basis and replace as necessary.

VII GREENHOUSE GAS EMISSIONS

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	□	□	■	□
b. Would the project Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	□	□	□	■

Analysis

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

LS All segments of the project would result in short-term greenhouse gas (GHG) emissions associated with project construction. Long-term GHG emissions associated with all segments of the project will be unchanged due to the replacement nature and energy neutral nature of the gravity sewer system.

The BAAQMD provides useful guidance in assessing project impacts on GHGs. The BAAQMD's 2017 Air Quality Guidelines establish recommended thresholds of significance for GHGs for project operation for CEQA analysis but do not contain a threshold for project construction. The adjacent Sacramento Metropolitan Air Quality District has established 1,100 metric tons/year as its threshold of significance for construction-related GHG emissions[15]. Using the RoadMod model, construction-related GHG emissions associated with Segment 1 are expected to be 7,967 lbs/day, or 0.0003 percent of California's daily emissions (based on California Air Resources Board 2014 data[16]). This equates to 3.6 metric tons per day or 720 metric tons of GHGs for the approximate Segment 1 construction period. Construction-related emissions are short-term and temporary and below other established air quality district thresholds. Based on this, short-term GHG emissions associated with Segment 1 are therefore considered to be less than significant. Because GHG thresholds of significance are subject to change and because construction details of Segments 2 through 4 are not currently known, future segments will require independent assessment under their own CEQA review.

[15] http://www.airquality.org/LandUseTransportation/Documents/CH2ThresholdsTable5-2015.pdf
[16] https://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2014/ghg_inventory_trends_00-14_20160617.pdf

b. Would the project Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

NI In 2006, the State of California passed the California Global Warming Solutions Act of 2006 (AB 32), which created a comprehensive, multi-year program to reduce GHG emissions in California. AB 32 required the California Air Resources Board (ARB or Board) to develop a Scoping Plan, adopted in 2008, that describes the approach California will take to reduce GHGs to achieve the goal of reducing emissions to 1990 levels by 2020. The Scoping Plan was updated in 2014. In 2016, the Legislature passed SB 32, which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels by 2030.

The 2014 Scoping Plan indicates that:

> Recognizing the important role local governments play in the successful implementation of AB 32, the initial Scoping Plan called for local governments to set municipal and communitywide GHG reduction targets of 15 percent below then-current levels by 2020, to coincide with the statewide limit. As California continues to build its climate policy framework, there is a need for local government climate action planning to adopt mid-term and long-term reduction targets that are consistent with scientific assessments and the statewide goal of reducing emissions 80 percent below 1990 levels by 2050. Local government reduction targets should chart a reduction trajectory that is consistent with, or exceeds, the trajectory created by statewide goals. Improved accounting and centralized reporting of local efforts, including emissions inventories, policy programs, and achieved emission reductions, would allow California to further incorporate, and better recognize, local efforts in its climate planning and policies.

The Scoping Plan recognizes that local GHG reduction commitments and climate action plans are essential to the state meeting its targeted emissions reductions.

The City adopted its Community Climate Action Plan (CAP) in 2012 that examines community-wide sources of GHG emissions and outlines strategies for reducing these emissions. The City developed its Municipal Operations Climate Plan in 2013[17]. The MCAP identifies projects, practices, and programs that will enable the City to cost-effectively and efficiently reduce GHG emissions from municipal operations and activities. Water and wastewater operations represent approximately one percent of community-wide GHG emissions by sector. The MCAP notes that: "Wastewater operations account for 46% of municipal GHG emissions [of that one percent] annually."

This project was not identified by the MCAP as a way to reduce wastewater operation-associated GHGs. The project would result in short-term greenhouse gas (GHG) emissions associated with project construction, as described above. The project would not result in additional long-term operational emissions of GHGs due to the replacement nature of the project and would therefore not conflict with the MCAP. Gravity sewers in general are not energy intensive since they rely on gravity flow to convey wastewater.

[17] Municipal Operations Climate Action Plan. City of Santa Rosa. August 6, 2013.

Cumulative Impacts

As indicated in a). above, the project will result in the short-term emission of GHGs associated with project construction. Based on 2014 emissions data for CO2 available from the California Air Resources Board, project construction will account for approximately 0.0003 percent of California's daily emissions. Construction-related emissions associated with Segment 1 are not considered to be cumulatively considerable based on the limited nature of the construction project. Additionally, the project is consistent with the City's MCAP goal of reducing long-term wastewater operational emissions.

Mitigation Measures

No adverse environmental impacts to greenhouse gas emissions have been identified; therefore, no mitigation is required.

VIII HAZARDS & HAZARDOUS MATERIALS

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	□	□	□	■
b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	□	■	□	□
c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	□	□	□	■
d. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	□	□	□	■
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	□	□	□	■
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	□	□	□	■
g. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	□	□	□	■
h. Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	□	□	□	■

Analysis

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

NI The project replaces and realigns an existing trunk sewer. No routine transport, use or disposal of hazardous materials is associated with this project. The project will not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

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

LSM As indicated above, the project will not introduce new hazardous materials or hazardous materials handling. There is the potential for a fuel/oil spill during construction from construction vehicles and equipment. Mitigation Measure HM1 will reduce such impact to a less than significant level.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

NI As indicated above, the project will not result in emissions or handling of hazardous materials.

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

LSM The proposed project is in the vicinity of several locations identified as having a leaking underground storage tanks by the State Water Resources Control Board GeoTracker system as shown on Figure 13. One site, T100006452 is located near enough to the Segment 4 alignment that contaminated groundwater could be encountered during construction. CEQA review at that time will require assessment of that site's records and development of specific strategies to handle contaminated groundwater or soils in that area. It is unlikely that the remainder of the project will experience contaminated soils associated with these sites. However, Mitigation Measure HM1 requires the contractor to cease work and contact the City in the event hazardous materials associated with the leaking underground fuel tank sites are discovered and consult with the Regional Board to develop a plan to dispose of the soils and ensure worker safety and protection of the environment.

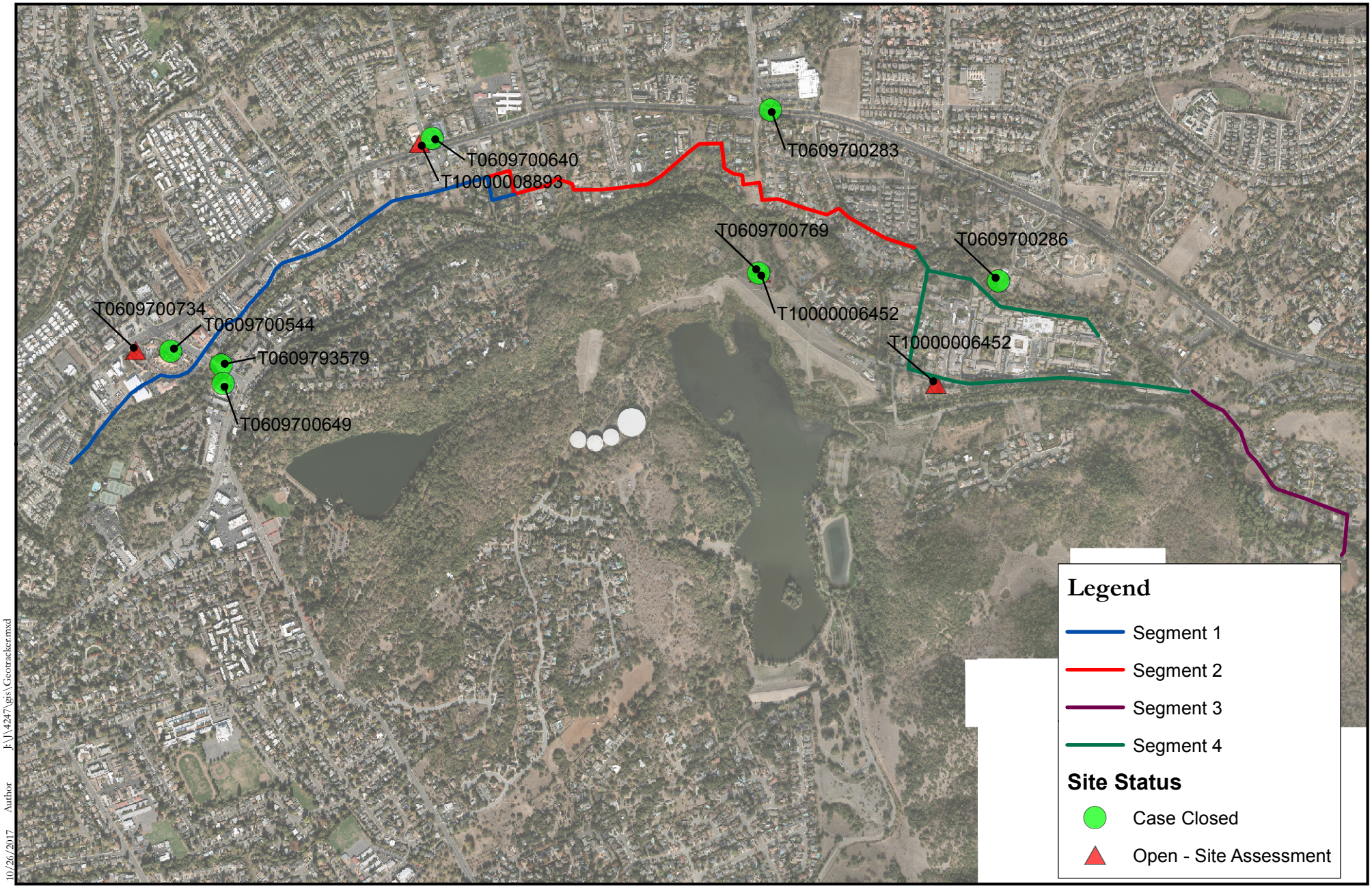
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

NI There are no public use airports within two miles of the project area. The closest airport is the Sonoma County Airport located approximately 8 miles northwesterly of the project[18]. The project will not pose any increased risk to or from air traffic.

f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

NI The project is not located in the vicinity of a private airstrip and is entirely within the developed area of Santa Rosa.

[18] *Comprehensive Airport Land Use Plan for Sonoma County*. 2016. Airport Land Use Commission.



10/26/2017 Author J:\J\4247\gis\Geotracker.mxd

NORTH

0 0.075 0.15 0.3 Miles

FIGURE 15
GEOTRACKER HAZARDOUS SITES

CITY OF SANTA ROSA
NOVEMBER 2017

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475 Aviation Blvd. Suite 123, Santa Rosa, CA 95403

g. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

LSM The project will not impair an adopted emergency response or evacuation plan. Portions of the project that will be constructed in public roadways will be required to maintain emergency access by Mitigation Measure TT1 contained in the Traffic and Transportation section of this document.

h. Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

NI The likeliness of a wildland fire at the project site is generally low. The October 2017 Tubbs fire did burn near the project area. The project will not increase fire risk associated with existing or planned development in the project area. The project is generally located in a developed area.

Cumulative Impacts

There are no adverse cumulative environmental impacts to or from hazards/hazardous materials resulting from implementation of the proposed project.

Mitigation Measures

HM1 The contractor shall be required to follow the provisions of § 5163 through 5167 of the General Industry Safety Orders (California Code of Regulations, Title 8) to protect the project area from being contaminated by accidental release of any hazardous materials. If hazardous materials are encountered during construction or occur as a result of an accidental spill, the contractor shall halt construction immediately, notify the City, and implement remediation in accordance with the project specifications and applicable requirements of the North Coast Regional Water Quality Control Board. Disposal of all hazardous materials shall be in compliance with current California hazardous waste disposal laws.

IX HYDROLOGY & WATER QUALITY

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project violate any water quality standards or waste discharge requirements?	□	□	□	■
b. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	□	□	□	■
c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	□	□	□	■
d. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	□	□	□	■
e. Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	□	□	□	■
f. Would the project otherwise substantially degrade water quality?	□	□	□	■
g. Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	□	□	□	■
h. Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?	□	□	□	■
i. Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	□	□	□	■
j. Would the project be subject to inundation by seiche, tsunami, or mudflow?	□	□	□	■

Analysis

a. Would the project violate any water quality standards or waste discharge requirements?

NI The project will not result in violation of water quality standards or waste discharge requirements. The replacement trunk sewer will allow the City of better serve its future population and reduce the potential for accidental overflow of the wastewater collection system in that area.

b. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

NI Water is generally provided to the project area by the City of Santa Rosa although some parcels may continue to utilize private water wells. The project will not deplete groundwater supplies or substantially interfere with groundwater recharge due to its replacement nature. The project will allow the City to continue to provide wastewater treatment for future growth, as planned for by its General Plan.

As indicated in the project description, groundwater dewatering will likely be required during construction of portions of the project. This will be a short-term localized impact and will not substantially deplete groundwater supplies or interfere substantially with groundwater recharge.

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

NI The project will not substantially alter the existing project area drainage. Areas excavated for wastewater main installation will be restored to existing grades and repaved or revegetated, depending on existing conditions. The project will not alter the course of any stream or river.

d. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

NI As indicated in c.) above, the project will restore existing surfaces and will not alter drainage patterns along its alignment.

e. Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

NI The project will not result in runoff that would exceed the capacity of the existing City storm drain system. Pervious and impervious surfaces disturbed by construction of the project will be restored to their previous condition and will not result in any significant change in stormwater runoff. Similarly, the nature of the runoff will be substantially the same and the project will not provide additional sources of polluted runoff.

f. Would the project otherwise substantially degrade water quality?

NI Mitigation Measure GS1 contained in the Geology & Soils section of this document requires that an erosion control plan be prepared to reduce any potential soil erosion impact to a less than significant level. The project will not otherwise introduce new pollutants that would substantially degrade water quality.

g. Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

NI The majority of the project is located within FEMA's non-printed flood maps 06097C0734E. The westerly portion of the project is located within panel 06097C0733E but is not within a designated 100-year flood hazard area[19]. The project area is not located within a 100-year flood hazard area and does not include construction of housing.

h. Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

NI As indicated above, the project area is not located within a 100-year flood hazard area.

i. Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

NI The project is not at significant risk from flooding as the result of the failure of a levee or dam. The project will be underground.

j. Would the project be subject to inundation by seiche, tsunami, or mudflow?

NI The project is not in an area subject to inundation by seiche, tsunami or mudflows.

Cumulative Impacts

There are no adverse cumulative environmental impacts to hydrology/water quality resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to hydrology/water quality have been identified; therefore, no mitigation is required.

[19] FEMA National Flood Hazard Layer http://fema.maps.arcgis.com/home/webmap/

X LAND USE & PLANNING

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project physically divide an established community?	□	□	□	■
b. Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	□	□	□	■
c. Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?	□	□	□	■

Analysis

a. Would the project physically divide an established community?

NI The project will not physically divide an established community. The proposed trunk sewer replacement will allow the City to accommodate future growth, as planned for by its General Plan. The replacement main will be underground and ground surfaces will be restored to existing conditions upon completion.

b. Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

NI The project will not conflict with any applicable land use plan, policy or regulation. The project responds to projected growth in Santa Rosa, as planned for in the City's General Plan and 2014 Sanitary Sewer Master Plan Update.

c. Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

NI The project is not within a habitat conservation plan or natural community conservation plan.

Cumulative Impacts

There are no adverse cumulative environmental impacts to land use and planning resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to land use and planning have been identified; therefore, no mitigation is required.

XI MINERAL RESOURCES

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	□	□	□	■
b. Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	□	□	□	■

Analysis

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

NI The project site does not include any known mineral resource that would be of value to the region and the residents of the state. The project will not affect the availability of any such resource.

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

NI The project area is not delineated in the City's General Plan as a locally important mineral resource recovery site.

Cumulative Impacts

There are no adverse cumulative environmental impacts to mineral resources resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to mineral resources have been identified; therefore, no mitigation is required.

XII NOISE

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	□	■	□	□
b. Would the project result in exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	□	■	□	□
c. Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	□	□	□	■
d. Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	□	□	□	■
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	□	□	□	■
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	□	□	□	■

Analysis

a. Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

LSM The project will not result in any significant long-term increases in noise levels in the project vicinity. The project is a trunk sewer replacement project and noise is not typically associated with operation of such facilities. The project does not involve the use of pump stations. Temporary bypass pumps will be utilized in various locations but will be removed once that segment of main is completed.

While the project will not result in changes to long-term or operation noise levels in the project vicinity, construction of the project will result in short-term noise. The City's ambient noise levels associated with zoning districts is shown below (Santa Rosa City Section Code 17-16.030). Code Section 17-16.120 states: It is unlawful for any person to operate any machinery, equipment, pump, fan, air-conditioning apparatus or similar mechanical device in any manner so as to create any noise which would cause the noise level at the property line of any property to exceed the ambient base noise level by more than five decibels. City Code Section 17-16.150 "Motor-driven vehicles-Noise" provides vehicle noise level limitations as set forth in Section 23130 of California Vehicle Code. This allows for higher noise levels for vehicles.

Zone	Time	Sound Level A (decibels) Community Environment Classification
R1 and R2	10 p.m. to 7 a.m.	45
R1 and R2	7 p.m. to 10 p.m.	50
R1 and R2	7 a.m. to 7 p.m.	55
Multi-family	10 p.m. to 7 a.m.	50
Multi-family	7 a.m. to 10 p.m.	55
Office & Commercial	10 p.m. to 7 a.m.	55
Office & Commercial	7 a.m. to 10 p.m.	60
Intensive Commercial	10 p.m. to 7 a.m.	55
Intensive Commercial	7 a.m. to 10 p.m.	65
Industrial	Anytime	70

The Federal Highway Administration provides noise levels associated with typical construction equipment in its Construction Noise Handbook[20]. Those noise levels are provided below.

Equipment	Typical Noise Level (dBA) 50 ft from Source
Air Compressor	81
Backhoe	80
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Crane Mobile	83
Generator	81
Jack Hammer	88
Loader	85
Paver	89
Pump	76
Roller	74
Saw	76
Truck	88

[20] https://www.fhwa.dot.gov/Environment/noise/construction_noise/handbook/handbook09.cfm

Based on the above typical noise levels, construction activities are expected to result in a temporary increase in noise levels that exceed the City's established noise criteria by five decibels. It is anticipated that construction will average 40 feet per day so no one location will be impacted by excessive noise levels for more than a few days at a time. Construction of Segment 1 is expected to occur beginning summer 2018 and take approximately ten months. While construction-related noise will likely exceed the City's thresholds, Mitigation Measure N1 will reduce such temporary construction-related noise to a less than significant level.

Nighttime construction may occur along Mission Circle and at the intersection of Mission Boulevard and Mission Circle to accommodate daytime traffic in that area, as shown on Figure 15 in the Transportation/Traffic section. Nighttime construction is expected to take approximately 19 days in that vicinity. Nearest sensitive receptors to nighttime construction noise are approximately 550 feet to the southeast of the project at the terminus of Mission Boulevard on Montgomery Drive. Existing commercial buildings that are not occupied at night would provide sound attenuation for most areas. Residences at the southwesterly terminus of Mission Boulevard could be exposed to non-attenuated construction noise. Because of the limited duration of the nighttime work, Mitigation Measure N1 will reduce this short-term impact to a level of less than significant.

b. Would the project result in exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?

NI Implementation of the project will not result in the exposure of people to or the generation of groundborne vibration or noise levels associated with Segment 1 of the project. No pile driving or similar construction techniques that would generate such vibration are required during Segment 1.

Stream crossings associated with later segments will utilize some form of trenchless technology to accomplish crossing the stream without impacting its bed. Potential ground borne vibration or noise levels associated with those activities will necessarily be assessed during subsequent environmental review once the crossing methodology is known.

c. Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

NI As stated above, the project will not result in a significant increase in ambient noise levels. The project will not increase ambient noise levels in any appreciable way.

d. Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

NI With the exception of the construction period, the project will not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity. See (a.) above.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

NI There are no public use airports within two miles of the project area. The closest airport is the Sonoma County Airport located in northwest of the project. The project will not alter the existing noise environment resulting from air traffic.

f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

NI The project is not in the vicinity of a private airstrip.

Cumulative Impacts

There are no adverse cumulative environmental impacts to noise resulting from implementation of the proposed project.

Mitigation Measures

No adverse long-term environmental impacts to noise have been identified; therefore, only construction phase mitigation is required.

N1 The following measures shall be implemented at the construction site to reduce the effects of construction noise on adjacent residences:

- Noise-generating activities at the construction site or in areas adjacent to the construction site associated with the project in any way shall generally be restricted to the hours of 7:00 a.m. to 7:00 p.m, or as allowed by City code. Except as noted below, any work outside of these hours should require a special permit from the City Engineer. There should be a compelling reasons for permitting construction outside the designated hours.

  Night work associated with construction along Mission Circle and at the Mission Boulevard and Mission Circle intersection may be required to facilitate traffic flow in that area. If nighttime construction is required, the City shall provide notice to all residences within 500 feet of the construction activities at least 48 hours prior to commencing construction. The notice shall include the contact information for the City's noise disturbance coordinator (see below), and the anticipated construction schedule.
- Equip all internal combustion engine driven equipment with intake and exhaust mufflers which are in good condition and appropriate for the equipment.
- Unnecessary idling of internal combustion engines shall be strictly prohibited.
- Staging of construction equipment and all stationary noise-generating construction equipment, such as air compressors and portable power generators, shall be staged as far as practical from existing sensitive noise receptors.
- Utilize "quiet" air compressors and other stationary noise sources where technology exists.
- Control noise from construction workers' radios to the point where radio noise is not audible at existing residences bordering the project site. No radios will be permitted during night work.

XIII POPULATION & HOUSING

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	□	□	□	■
b. Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	□	□	□	■
c. Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	□	□	□	■

Analysis

a. Would the project induce substantial 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)?

NI The project will not induce population growth. The project responds to orderly growth within the City as planned for by the General Plan.

b. Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

NI No housing would be displaced by the project.

c. Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

NI The project will not require the construction of replacement housing elsewhere.

Cumulative Impacts

There are no adverse cumulative environmental impacts to population and housing resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to population and housing have been identified; therefore, no mitigation is required.

XIV PUBLIC SERVICES

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?	□	□	□	■
ii. Police protection?	□	□	□	■
iii. Schools?	□	□	□	■
iv. Parks?	□	□	□	■
v. Other public facilities?	□	□	□	■

Analysis

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

i. Fire protection?

NI The project will not have a significant effect on fire protection services. Water service currently provided in the area by the City will not be impacted by the project.

ii. Police protection?

NI The project will not have a significant impact on police protection.

iii. Schools?

NI The proposed improvements are not located adjacent to any schools and will not otherwise negatively impact schools in the area.

iv. Parks?

NI The project will have no impact on parks.

v. Other public facilities?

NI The project will not impact other public facilities.

Cumulative Impacts

There are no adverse cumulative environmental impacts to public services resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to public services have been identified; therefore, no mitigation is required.

XV RECREATION

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	□	□	□	■
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	□	□	□	■

Analysis

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

NI The project is not growth inducing and will not have a significant impact on recreational facilities. The project responds to future growth planned for by the General Plan and recreational facilities are similarly planned for by the General Plan.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

NI The project does not include or require expansion of recreational facilities.

Cumulative Impacts

There are no adverse cumulative environmental impacts to recreation resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to recreation have been identified; therefore, no mitigation is required.

XVI TRANSPORTATION/TRAFFIC

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	□	□	□	■
b. Would the project 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?	□	■	□	□
c. Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	□	□	□	■
d. Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	□	□	□	■
e. Would the project result in inadequate emergency access?	□	□	□	■
f. Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	□	□	□	■

Analysis

a. Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

NI The project does not conflict with an applicable transportation plan, ordinance or policy. The project will not have any long-term impacts to transportation.

b. Would the project 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?

LSM The project does not increase vehicle trips to or from the project area. Upon project completion, roadway surfaces will be restored to existing conditions. Therefore, the proposed project does not conflict with any applicable congestion management program.

As shown on Figure 14, construction of Segment 1 will impact the intersection of Mission Boulevard and Mission Circle, along Quigg Drive and minor portions of Acacia Lane, and Elaine Drive. Construction will reduce access in those areas to vehicle, pedestrian and bike traffic. Standard traffic control mitigation provided in TT1 will reduce these impacts along Quigg Drive and minor portions of Acacia Lane, and Elaine Drive and ensure access to driveways when active construction is not underway.

For work in the Mission Boulevard and Mission Circle intersection, standard traffic control measures may be insufficient to accommodate traffic volumes in that area. This Initial Study examines the potential for nighttime work to alleviate traffic volumes to levels where standard traffic control would be sufficient. Alternatively, trenchless technologies could be employed to reduce the need for traffic lane closures.

c. Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

NI The project will have no impact on air traffic patterns.

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

NI The project will not increase design hazards. Road surfaces will be restored to existing conditions in portions of the pipeline constructed in roadways.

e. Would the project result in inadequate emergency access?

LSM The project will not have any long-term impact to emergency access since roadways will be restored to existing conditions. Construction in roadways could impact emergency response during construction. Mitigation Measure TT2 will requires the contractor to maintain emergency access and reduces such impact to less than significant.

f. Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

LSM Segment 1 will impact traffic along a 0.3 mile portion of the Santa Rosa Creek Trail. This portion of the trail will be closed to vehicle and pedestrian access for part or all of the approximately 27 working day period. A viable bypass route exists, as described in the Project Description. Mitigation Measure TT3 requires the contractor to develop a bicycle and pedestrian bypass plan while construction impacts this area.

Cumulative Impacts

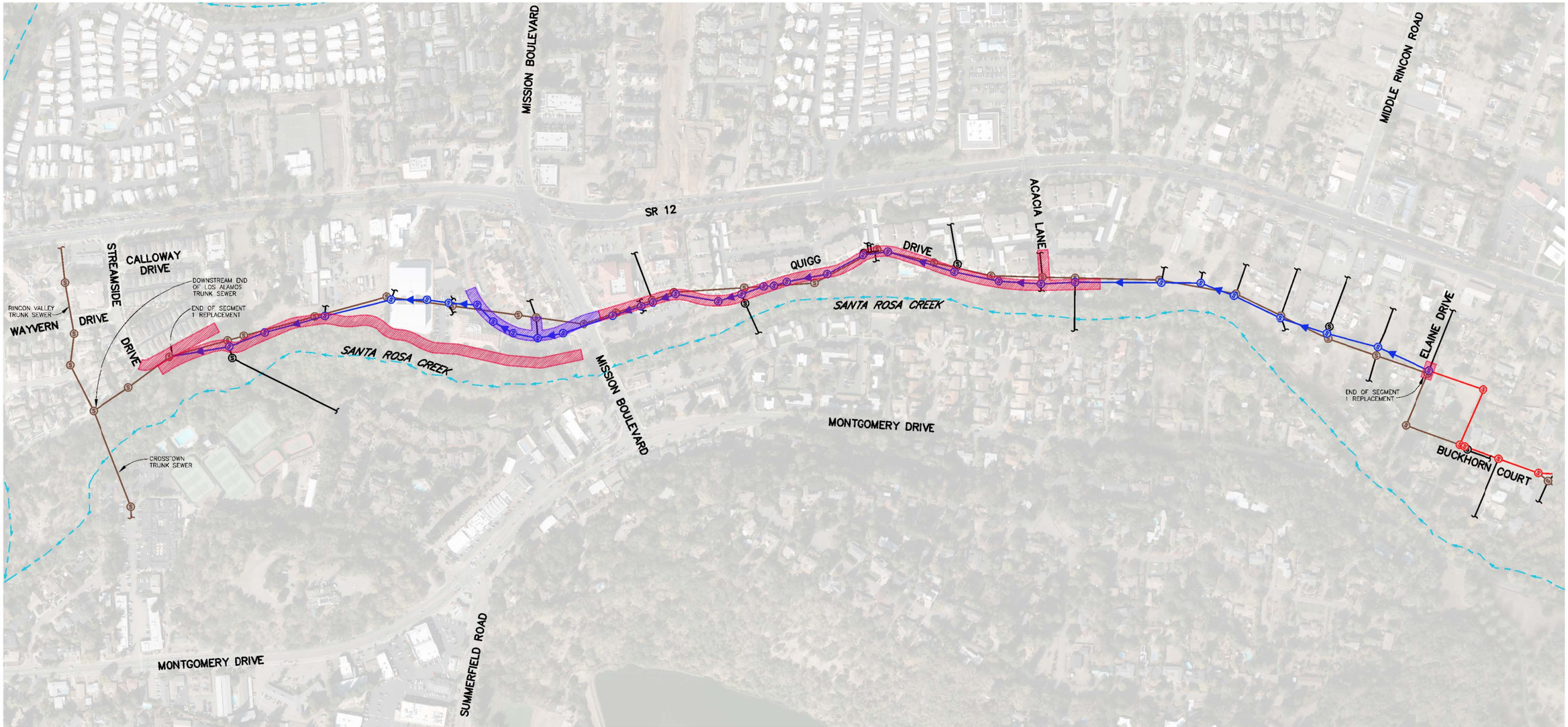
There are no adverse cumulative environmental impacts to transportation/traffic resulting from implementation of the proposed project.

Mitigation Measures

TT1 The contractor shall develop and submit an appropriate Traffic Control Plan (TCP) in accordance with the California Manual of Uniform Traffic Control Devices (MUTCD) for review and approval by the City for all sections of Segment 1 that impact traffic circulation. The TCP shall also include notifying adjacent businesses and residents of the construction schedule and when it will impact access. The TCP shall ensure thru traffic and temporary driveway access during periods where active construction is not taking place.

TT2 The contractor shall provide advanced notice regarding timing, location and the duration of construction activities to local emergency responders. The contractor shall ensure emergency responders can access through construction areas in roadways at all times.

TT3 The contractor shall develop a bicycle and pedestrian bypass plan for the 0.3 mile portion of the Santa Rosa Creek Trail during construction for City review and approval. The plan shall include adequate signage direction bicycle and pedestrian traffic around the detour route. Maps of the bypass route shall be posted at all Santa Rosa Creek Trail access locations impacted by construction.



PLAN
SCALE: 1" = 400'

LEGEND

- PROPOSED SEGMENT 1 TRUNK SEWER ALIGNMENT
- PROPOSED FUTURE TRUNK SEWER ALIGNMENT
- EXISTING OR PROPOSED SIDE OR LATERAL SEWER
- EXISTING TRUNK SEWER
- CONSTRUCTION RELATED BIKE OR TRAFFIC AREA
- POTENTIAL NIGHT WORK AREA

NORTH

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FIGURE 14

SEGMENT 1
TRAFFIC AND POTENTIAL NIGHT WORK AREAS

CITY OF SANTA ROSA LOS ALAMOS
TRUNK SEWER REPLACEMENT

NOVEMBER 2017

XVII UTILITIES & SERVICE SYSTEMS

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	□	□	□	■
b. Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	□	□	□	■
c. Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	□	□	□	■
d. Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	□	□	□	■
e. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	□	□	□	■
f. Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	□	□	□	■
g. Would the project comply with federal, state, and local statutes and regulations related to solid waste?	□	□	□	■

Analysis

a. Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

NI The project would not exceed wastewater treatment requirements of the Regional Board. The project replaces the existing trunk sewer in this area, consistent with the City's long-term infrastructure planning and General Plan requirements. The project will not alter the City's wastewater treatment plant operations that is subject to improvements and expansion to serve future growth.

b. Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

NI The project itself will not increase demand for water. Similar to wastewater, the City plans for growth through its General Plan and water planning is based on the same growth projections as wastewater. The City will implement water system capacity and supply improvements according to its Urban Water Management Plan (UWMP) that provides an assessment of the

City's water system, including water supply and demand, an overview of our recycled water and conservation programs

c. Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

NI As a sewer trunk replacement project, the project will not impact storm water drainage facilities in the project area.

d. Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

NI As indicated in b.) above, the City's UWMP plans for water supplies to meet future growth. The project itself will not alter the need for water supply.

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

NI The project will not directly impact the City's wastewater treatment. Planned growth and associated increased wastewater treatment are addressed by the City's General Plan and Master Plan Update.

f. Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

NI The project will generate recyclable demolition materials during construction. No increase in solid waste generation will occur as the project will not increase solid waste demands above those associated with existing conditions.

g. Would the project comply with federal, state, and local statutes and regulations related to solid waste?

NI The project will comply with federal, state and local statutes and regulations related to solid waste.

Cumulative Impacts

There are no adverse cumulative environmental impacts to utilities and service systems resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to utilities and service systems have been identified; therefore, no mitigation is required.

XVII MANDATORY FINDINGS OF SIGNIFICANCE

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? **No.**

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)? **No.**

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? **No.**

DETERMINATION

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ■ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Andrew J Wilt

Signature

ANDREW WILT

Printed Name

2-20-2018

Date

For:

Santa Rosa Public Utilities Department

DOCUMENT PREPARATION AND SOURCES

A Historical Resources Survey for Segment 1 of the Los Alamos Trunk Sewer Replacement Project. Tom Origer & Associates. October 13, 2017.

Archival-level Cultural Resources Study for Los Alamos Trunk Sewer Replacement Project Phase 2, 3 and 4. Tom Origer & Associates. October 13, 2017.

Biological Resources Assessment Los Alamos Trunk Sewer Replacement Phase 1. WRA, Inc. September 2017.

California Environmental Quality Act Guidelines. 2017.

California Environmental Quality Act Air Quality Guidelines. Bay Area Air Quality Management District. May 2017.

Comprehensive Airport Land Use Plan for Sonoma County. 2016. Airport Land Use Commission.

Fault-rupture Hazard Zones in California. Special Publication 42. Revised 1997. Department of Conservation, Division of Mines and Geology. Revised Santa Rosa Quadrangle. 1983.

Municipal Operations Climate Action Plan. City of Santa Rosa. August 6, 2013.

Paleontological Collecting. 1987. National Academy Press. Washington, DC.

Sonoma County Important Farmland—2014. California Resources Agency. Department of Conservation.

Tree Survey Report Los Alamos Trunk Sewer Replacement Phase 1. WRA, Inc. September 2017.

Prepared by:

Justin Witt—Environmental Planner

APPENDIX A: MITIGATION MONITORING AND REPORTING PLAN

Los Alamos Trunk Sewer Replacement
February 2018

Pursuant to Section 21081.6 of the State CEQA Guidelines[1], the mitigation measures listed in this Mitigation Monitoring and Reporting Plan (MMRP) are to be implemented as part of the proposed project. The MMRP identifies the time at which each mitigation measure is to be implemented and the person or entity responsible for implementation. The initials of the designated responsible person will indicate completion of their portion of the mitigation measure. The City of Santa Rosa (City) project manager's signature on the Certification of Compliance will indicate complete implementation of the MMRP.

The mitigation measures included in the MMRP are considered conditions of approval of the proposed project. The City agrees to implement the mitigation measures proposed in the MMRP. Implementation of the mitigation measures included in the MMRP is expected to avoid, minimize, rectify, reduce, or compensate potentially significant impacts to a less than significant level.

TIME OF IMPLEMENTATION

Project Design:	The mitigation measure will be incorporated into the project design and/or included in the project specifications and contract special provisions prior to issuing final permits.
Pre-construction:	The mitigation measure will be implemented prior to project construction.
Construction:	The mitigation measure will be implemented during construction.

RESPONSIBLE PERSONS AND DEPARTMENTS

The City as Lead Agency will be responsible for the overall implementation of the MMRP. The City's project manager will oversee the project's compliance with the MMRP. The City's project manager will sign off on the mitigation measures included in the MMRP. Periodically, other City staff, consultants or regulatory agencies will be involved in the implementation of specific mitigation measures. In these instances, the staff, department, or agency will be identified in the MMRP.

CERTIFICATION OF COMPLIANCE

The City will be responsible for providing signatures on the Certification of Compliance. The Certification of Compliance is a double-check to ensure that the MMRP was fully implemented.

RECORD KEEPING

The City's project manager will maintain the records of the MMRP. When the MMRP is fully implemented, the original signed copy will be maintained by the City.

1 California Code of Regulations Title 14.

CERTIFICATION OF COMPLIANCE

Complete the Certification of Compliance after mitigation measures have all been initialed. Use this Certification of Compliance to ensure the full implementation of each mitigation measure.

Project Design

The City's project manager has reviewed the project design, the plans, and the contract special provisions to verify that designated mitigation measures have been incorporated.

_____

Signature & title *Date*

Pre-construction

The City's project manager has verified that designated mitigation measures were implemented prior to construction.

_____

Signature & title *Date*

Construction

The City's project manager has verified that designated mitigation measures were implemented during construction.

_____

Signature & title *Date*

AIR QUALITY

AQ1 *The following Feasible Control Measures, as described by the Bay Area Air Quality Management District, shall be implemented during construction to minimize fugitive dust and emissions:*

- *All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.*
- *All haul trucks transporting soil, sand, or other loose material off-site shall be covered.*
- *All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.*
- *All vehicle speeds on unpaved roads shall be limited to 15 mph.*
- *All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.*
- *Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.*
- *All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.*
- *Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.*

Implementation & Monitoring

Project Design: The City's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals.

_____

Initials *Date*

Construction: The City's project manager or City grading inspector and building inspector(s) shall ensure that Mitigation Measure AQ1 is being complied with during construction. Failure to comply shall result in issuance of a stop work order until corrective action has been taken.

_____

Initials *Date*

BIOLOGICAL RESOURCES

BIO1 *Special-Status and Non-Status Nesting Birds: The following measures shall be implemented to avoid impacts to white-tailed kite, Vaux's swift, yellow warbler, yellow-breasted chat, oak titmouse, Allen's hummingbird, Nuttall's woodpecker, and other nesting birds protected by the MBTA and CFGC:*

- *If ground disturbance or vegetation removal is initiated in the non-breeding season (September 1 through January 31), no pre-construction surveys for nesting birds are required and no adverse impact to birds would result.*
- *If ground disturbance or removal of vegetation occurs in the breeding bird season (February 1 through August 31), pre-construction surveys shall be performed by a qualified biologist no more than 14 days prior to commencement of such activities to determine the presence and location of nesting bird species. If active nests are present, temporary no-work buffers shall be placed around active nests to prevent adverse impacts to nesting birds. Appropriate buffer distance shall be determined by a qualified biologist and is dependent on species, surrounding vegetation, and topography. Once active nests become inactive, such as when young fledge the nest or the nest is subject to predation, work shall continue in the buffer area and no adverse impact to birds will result.*

Implementation & Monitoring

Project Design: The City's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals.

_____

Initials *Date*

Pre-construction: The City's project manager shall ensure that Mitigation Measure BIO1 is being complied with prior to construction. Failure to comply shall result in inspections or issuance of a stop work order until corrective action is taken to comply.

_____

Initials *Date*

BIO2 *Special-Status Bat Species: The following measures shall be implemented to avoid impacts to special-status bat species:*

- *Pre-construction roost assessment survey: A qualified biologist shall conduct a roost assessment survey of trees located within the project area. The survey will assess use of the trees and cavities for roosting as well as potential presence of bats. If the biologist finds no evidence of, or potential to support bat roosting, no further measures are recommended. If evidence of bat roosting is present, additional measures described below shall be implemented:*
- *Work activities outside the maternity roosting season: If evidence of bat roosting is discovered during the pre-construction roost assessment and tree removal is planned August 1 through February 28 (outside the bat maternity roosting season), a qualified biologist shall implement passive exclusion measures to prevent bats from re-entering the tree cavities. After sufficient time to allow bats to escape and a follow-up survey to determine if bats have vacated the roost, tree removal may continue and impacts to special-status bat species will be avoided.*
- *Work activities during the maternity roosting season: If a pre-construction roost assessment discovers evidence of bat roosting in the trees during the maternity roosting season (March 1 through July 31), and determines maternity roosting bats are present, removal of maternity roost trees shall be avoided during the maternity roosting season or until a qualified biologist determines the roost has been vacated.*

Implementation & Monitoring

Project Design: The City's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals.

Initials *Date*

Pre-construction: The City's project manager shall ensure that Mitigation Measure BIO2 is being complied with prior to construction. Failure to comply shall result in inspections or issuance of a stop work order until corrective action is taken to comply.

Initials *Date*

BIO3 *Western Pond Turtle: To avoid impacts to western pond turtle through accidental entrapment and/or injury, all open trenches created through project activities shall be covered during non-work hours.*

Implementation & Monitoring

Project Design: The City's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals.

Initials *Date*

Pre-construction: The City's project manager shall ensure that Mitigation Measure BIO3 is being complied with prior to construction. Failure to comply shall result in inspections or issuance of a stop work order until corrective action is taken to comply.

Initials *Date*

BIO4 *An arborist shall be on-site for earth moving activities in special trenching zones identified in the project plans and specifications with the goal of minimizing impacts to roots in those zones to retain the trees. If, in the arborist's opinion, the tree would be compromised by the construction activities, the tree shall be removed and mitigated for per the City's tree ordinance.*

A tree removal permit will be required for any alteration, removal or relocation of heritage or protected trees. The City of Santa Rosa may require replacement plantings as a condition of approval in order to mitigate for the loss of functions provided by trees to be removed including shade, erosion control, groundwater replenishment, visual screening, and wildlife habitat.

Implementation & Monitoring

Project Design: The City's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals.

Initials *Date*

Pre-construction: The City's project manager shall ensure that Mitigation Measure BIO4 is being complied with during construction. Failure to comply shall result in inspections or issuance of a stop work order until corrective action is taken to comply.

Initials *Date*

CULTURAL RESOURCES

CR1 *The project plans and specifications shall provide that in the event prehistoric-era or historic-era archaeological site indicators are unearthed during the course of grading, excavation and/or trenching, all ground disturbing work in the vicinity of the discovery shall cease and all exposed materials shall be left in place. Prehistoric-era archaeologic site indicators could include chipped chert and obsidian tools and tool manufacture waste flakes, grinding implements such as mortars and pestles, and locally darkened soil containing the previously mentioned items as well as fire altered stone and dietary debris such as bone and shellfish fragments. Historic-era archaeologic site indicators could include items of ceramic, glass and metal, and features such as structural ruins, wells and pits containing such artifacts. After cessation of excavation, the contractor shall immediately contact the City. The City shall contact a qualified professional archaeologist immediately after the find. Such archaeologist shall conduct an evaluation of significance of the site, and assess the necessity for mitigation. The contractor shall not resume construction activities until authorization to proceed is received from the City.*

Implementation & Monitoring

Project Design: The City's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals. City shall confirm that tribal consultation has resulted in the required monitoring plan.

Initials *Date*

Construction: The City's project manager will verify that the mitigation measure is implemented during construction through routine inspections of during ground disturbing work. Failure to comply shall result in issuance of a stop work order until corrective action is taken.

Initials *Date*

CR2 *The project plans and specifications shall provide that in the event paleontological site indicators are unearthed during the course of grading, excavation and/or trenching, all ground disturbing work in the vicinity of the discovery shall cease and all exposed materials shall be left in place. After cessation of excavation, the contractor shall immediately contact the City. The City shall contact a qualified professional geologist or paleontologist immediately after the find. Such consultant shall conduct an evaluation of significance of the site, and assess the necessity for mitigation. The contractor shall not resume construction activities until authorization to proceed is received from the City.*

Implementation & Monitoring

Project Design: The City's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals.

Initials *Date*

Construction: The City's project manager will verify that the mitigation measure is implemented during construction through routine inspections of during ground disturbing work. Failure to comply shall result in issuance of a stop work order until corrective action is taken.

Initials *Date*

CR3 *If human remains are encountered during grading, excavation or trenching, all construction activity shall cease and the contractor shall immediately contact the City and the Sonoma County Coroner's Office. If the remains are determined by the Coroner's Office to be of Native American origin, the Native American Heritage Commission shall be contacted and the procedures outlined in CEQA §15064.5 (d) and (e) shall be implemented by the City or its designee.*

Implementation & Monitoring

Project Design: The City's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals.

Initials *Date*

Construction: The City's project manager will ensure that required measures are followed in the event of discovery of human remains.

Initials *Date*

GEOLOGY AND SOILS

GS1 *The City shall prepare an erosion control plan for the project. Appropriate BMPs will be implemented by the project to minimize construction-related erosion and runoff. BMPs include, but are not limited to:*

- *Schedule construction activities during dry weather. Keep grading operations to a minimum during the rainy season (October 15 through April 15).*
- *Protect and establish vegetation.*
- *Stabilize construction entrances and exits to prevent tracking onto roadways.*
- *Protect exposed slopes from erosion through preventative measures. Cover the slopes to avoid contact with storm water by hydroseeding, applying mulch or using plastic sheeting.*
- *Install straw wattles and silt fences on contour to prevent concentrated flow. Straw wattles should be buried 3 to 4 inches into the soil, staked every 4 feet, and limited to use on slopes that are no steeper than 3 units horizontal to 1 unit vertical. Silt fences should be trenched 6 inches by 6 inches into the soil, staked every 6 feet, and placed 2 to 5 feet from any toe of slope.*
- *Designate a concrete washout area to avoid wash water from concrete tools or trucks from entering gutters, inlets or storm drains. Maintain washout area and dispose of concrete waste on a regular basis.*
- *Establish a vehicle storage, maintenance and refueling area to minimize the spread of oil, gas and engine fluids. Use oil pans under stationary vehicles.*
- *Protect drainage inlets from receiving polluted storm water through the use of filters such as fabrics, gravel bags or straw wattles.*
- *Check the weather forecast and be prepared for rain by having necessary materials onsite before the rainy season.*
- *Inspect all BMPs before and after a storm event. Maintain BMPs on a regular basis and replace as necessary.*

Implementation & Monitoring

Project Design: The City's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals.

_____

Initials *Date*

Construction: The City's project manager or inspector(s) shall verify that the mitigation measure is implemented during construction periods and respond to any erosion issues.

_____

Initials *Date*

HAZARDS/HAZARDOUS MATERIALS

HM1 *The contractor shall be required to follow the provisions of § 5163 through 5167 of the General Industry Safety Orders (California Code of Regulations, Title 8) to protect the project area from being contaminated by accidental release of any hazardous materials. If hazardous materials are encountered during construction or occur as a result of an accidental spill, the contractor shall halt construction immediately, notify the City, and implement remediation in accordance with the project specifications and applicable requirements of the North Coast Regional Water Quality Control Board. Disposal of all hazardous materials shall be in compliance with current California hazardous waste disposal laws.*

Implementation & Monitoring

Project Design: The City's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals.

_____

Initials *Date*

Construction: The City's project manager will verify that the mitigation measure is incorporated into project construction, as appropriate.

_____

Initials *Date*

NOISE

N1 *The following measures shall be implemented at the construction site to reduce the effects of construction noise on adjacent residences:*

- *Noise-generating activities at the construction site or in areas adjacent to the construction site associated with the project in any way shall generally be restricted to the hours of 7:00 a.m. to 7:00 p.m, or as allowed by City code. Except as noted below, any work outside of these hours should require a special permit from the City Engineer. There should be a compelling reasons for permitting construction outside the designated hours.*
- *Night work associated with construction along Mission Circle and at the Mission Boulevard and Mission Circle intersection may be required to facilitate traffic flow in that area. If nighttime construction is required, the City shall provide notice to all residences within 500 feet of the construction activities at least 48 hours prior to commencing construction. The notice shall include the contact information for the City's noise disturbance coordinator (see below), and the anticipated construction schedule.*
- *Equip all internal combustion engine driven equipment with intake and exhaust mufflers which are in good condition and appropriate for the equipment.*
- *Unnecessary idling of internal combustion engines shall be strictly prohibited.*
- *Staging of construction equipment and all stationary noise-generating construction equipment, such as air compressors and portable power generators, shall be staged as far as practical from existing sensitive noise receptors.*
- *Utilize "quiet" air compressors and other stationary noise sources where technology exists.*
- *Control noise from construction workers' radios to the point where radio noise is not audible at existing residences bordering the project site. No radios will be permitted during night work*

Implementation & Monitoring

Project Design: The City's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals.

Initials *Date*

Construction: The City's project manager or inspectors shall verify that the mitigation measure is implemented during construction periods and respond to any noise complaints.

Initials *Date*

TRAFFIC/TRANSPORTATION

TT1 *The contractor shall develop and submit an appropriate Traffic Control Plan (TCP) in accordance with the California Manual of Uniform Traffic Control Devices (MUTCD) for review and approval by the City for all sections of Segment 1 that impact traffic circulation. The TCP shall also include notifying adjacent businesses and residents of the construction schedule and when it will impact access. The TCP shall ensure thru traffic and temporary driveway access during periods where active construction is not taking place.*

Implementation & Monitoring

Project Design: The City's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals.

Initials *Date*

Preconstruction: The City's project manager shall review and approve the Traffic Control Plan prior to construction.

Initials *Date*

Construction: The City's project manager or inspectors shall verify that the mitigation measure is implemented during construction periods.

Initials *Date*

TT2 *The contractor shall provide advanced notice regarding timing, location and the duration of construction activities to local emergency responders. The contractor shall ensure emergency responders can access through construction areas in roadways at all times.*

Implementation & Monitoring

Project Design: The City's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals.

Initials *Date*

Construction: The City's project manager shall ensure appropriate notice is given and that emergency access is maintained.

Initials *Date*

TT3 *The contractor shall develop a bicycle and pedestrian bypass plan for the 0.3 mile portion of the Santa Rosa Creek Trail during construction for City review and approval. The plan shall include adequate signage direction bicycle and pedestrian traffic around the detour route. Maps of the bypass route shall be posted at all Santa Rosa Creek Trail access locations impacted by construction.*

Implementation & Monitoring

Project Design: The City's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals.

Initials *Date*

Preconstruction: The City's project manager shall review and approve the bicycle and pedestrian bypass plan prior to construction.

Initials *Date*

Construction: The City's project manager or inspectors shall verify that the mitigation measure is implemented during construction.

Initials *Date*