

CITY OF SANTA ROSA
BOARD OF PUBLIC UTILITIES

TO: BOARD OF PUBLIC UTILITIES

FROM: ANDREW WILT, ASSOCIATE CIVIL ENGINEER
CAPITAL PROJECTS ENGINEERING

SUBJECT: ADOPTION OF A MITIGATED NEGATIVE DECLARATION AND
MITIGATION MONITORING AND REPORTING PROGRAM AND
APPROVAL OF THE FULTON RD SEWER MAIN IMPROVEMENTS,
WEST 3RD ST TO SANTA ROSA CREEK PROJECT

AGENDA ACTION: RESOLUTION

RECOMMENDATION

It is recommended by the Transportation and Public Works Department and Santa Rosa Water that the Board of Public Utilities, by resolution: 1) adopt the Mitigated Negative Declaration for the Fulton Rd Sewer Main Improvements, West 3rd St to Santa Rosa Creek Project; 2) adopt the Mitigation Monitoring and Reporting Program; 3) approve the Fulton Rd Sewer Main Improvements, West 3rd St to Santa Rosa Creek Project; and 4) direct staff to file a Notice of Determination.

EXECUTIVE SUMMARY

This proposed resolution will adopt the Mitigated Negative Declaration (MND), adopt the Mitigation Monitoring and Reporting Program (MMRP), and approve the Fulton Rd Sewer Main Improvements, West 3rd St to Santa Rosa Creek Project (Project). The proposed resolution will also direct City staff to file a Notice of Determination for the Project pursuant to the California Environmental Quality Act (CEQA) Guidelines.

BACKGROUND

The City of Santa Rosa (City) Water Operations (Operations) sewer maintenance program involves ongoing inspection and cleaning of the wastewater collection system. Beginning in 2009, closed-circuit television (CCTV) inspection observed various abnormalities in the section of the existing sewer main, comprised of 14-inch polyethylene (PE) liner inside of an 18-inch asbestos cement pipe (ACP), located at the west side of Fulton Road, from West 3rd Street to just north of Santa Rosa Creek. Although abnormalities were identified, sewer flow restrictions were not observed. In 2014, another CCTV inspection revealed an increase in abnormalities in the same sections previously observed in 2009, with areas of the pipe noted

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as deformed elliptically and having a reverse slope. Besides the shape change, the PE liner appeared to be in fair condition. However, in January 2017, CCTV inspection efforts were restricted as the camera was not able to pass through the previously identified deformed area. Since that time, Operations has had to modify its approach and increase maintenance efforts to maintain this section of sewer. Based on the best available information, it has been determined the slope of the existing sewer main is not consistent with City standards and the PE liner is irregular and continuing to deform into an upside-down 'U' shape, resulting in restriction of flow such that staff has concluded this section of sewer is compromised.

The City desires to undertake a project to address the approximately 300 feet of failing sanitary sewer pipe (see Attachment 1). Originally constructed in 1969, the 18-inch diameter ACP sewer served a larger geographical area defined at the time as the North Wright Road Assessment District. Since then, other nearby regional collection facilities have been installed, resulting in a reduced geographical service area and thus reduced pipe flow. In 1984, the existing Fulton Road bridge was widened. Record documents indicate the existing 18-inch ACP sewer was originally to be relocated as part of the widening project to create space for the proposed bridge support piles. However, relocation efforts were not completed, and instead, the existing sewer was lined with a PE liner.

In February 2018, Woodard & Curran / RMC (RMC) provided a preliminary design Technical Memorandum (TM) that discussed project background information, existing conditions, alternative solutions, a recommended solution, and other design considerations necessary to address the repair or replacement of the subject sewer under Santa Rosa Creek. The TM's alternatives analysis identified and assessed the technical feasibility of several potential solutions to correct the failing liner. The following describes the various alternatives considered:

1. Cured-in-place pipe (CIPP) spot repair: This alternative would repair only the deformed portion of the existing PE liner by locally heating the liner pipe at the spot location and pulling in an inflatable flow-through packer or a mandrel to re-round the pipe, then inserting the CIPP liner. This was deemed infeasible due to the unknown condition of the host pipe, the potential for the re-rounding tools to become stuck in the pipe, and the potential for the repaired section to collapse between the re-rounding and insertion of the CIPP liner.
2. Mechanical point repair: This alternative would repair the damaged portion of the pipe with a proprietary system consisting of two stainless steel bands and an ethylene propylene diene monomer (EPDM) compressions seal, installed using an inflatable packer. This was deemed infeasible due to the inflatable packer not producing sufficient pressure to reshape the PE liner and the degree of lift in the liner exceeding the limits of the repair system.

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3. Remove and replace liner: This alternative would remove and replace the entire liner between existing manholes. This was deemed infeasible due to the unknown condition of the host pipe, which may collapse when the existing liner is removed or may be deformed such that a new liner would also have an inconsistent slope and concerns that creek scour may remove the host pipe, leaving the liner exposed to the creek.
4. Reroute flow [sewer alignment]: This alternative would reroute flow from the approximately 60 parcels in the Countryside Development to drain south towards the Llano Trunk sewer, allowing the portion of the sewer under the creek to be abandoned. This option was deemed infeasible due to insufficient elevation drop between the existing sewer from the Countryside Development and the tie-in location in the Llano Trunk sewer.
5. Pipe bursting existing pipe: This alternative would use the trenchless pipe bursting technique to break out the existing pipe and pull a new PE pipe into the void formed behind the bursting head. This was deemed infeasible due to the host pipe being ACP, which is only allowed to be burst a maximum length of 100 feet by California regulations, and because it is unknown if the existing concrete cap over the host pipe is reinforced, which cannot be burst.
6. Sliplining: This alternative would pull a smaller diameter pipe into the existing pipe and fill the annular space with grout. There are unknowns with this alternative, but it was recommended for further consideration. Further analysis by the engineering design team deemed this alternative infeasible due to the likelihood that the deformations in the existing pipe would cause the new sliplined pipe to contain similar deformations including reversed slopes.
7. Pipe jacking with ductile iron pipe (DIP): This alternative would use bore and jack equipment to install a new smaller diameter ductile iron pipe (DIP) through the existing PE liner. This was deemed infeasible due to the DIP bells being larger than the existing liner, and due to the bell and spigot joints of DIP not being able to withstand the thrust force of the jacking, causing some of the joints to break.
8. Open cut replacement: This alternative would replace the existing sanitary sewer pipe via traditional open cut construction methods. This method was deemed feasible and recommended for further consideration.
9. Inverted siphon: This alternative would replace the existing sewer beneath Santa Rosa Creek by installing an inverted siphon to the west of the existing pipe. Two methods of construction were considered:
 - 9.1 Open cut with pilot tube guided auger boring: This method involves open cut construction for the up and down legs of the siphon and a pilot tube guided auger boring for the portion under the creek thus reducing the permitting requirements.
 - 9.2 Horizontal directional drilling: This is a trenchless method that uses a guided drilling technique to install a new pipe with an arc profile. This method would

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avoid environmental permitting challenges associated with work within Santa Rosa Creek.

Both inverted siphon alternatives were deemed feasible and recommended for further consideration.

10. Pump station and force main: This alternative would install a pump station to collect wastewater from the Countryside Development and convey it via a force main to the existing sewer in Placer Drive, on the east side of Fulton Road. Environmental concerns and permitting challenges associated with work within Santa Rosa Creek would be avoided. This solution was deemed feasible and recommended for further consideration, but not preferred due to significant ongoing maintenance requirements and the need for the provision of emergency power.

RMC's TM included a ranking of the feasible alternatives (from the list above) based on constructability, operations & maintenance, and relative cost; and ultimately recommended Alternative 8 (Open Cut Replacement) for the Project. This method will ensure system reliability.

In May 2019, Brelje & Race Consulting Engineers (B&R) supplemented the City's feasibility analysis efforts. With consideration of potential environmental permitting complications and scheduling concerns, B&R completed a Life Cycle Cost Analysis study to compare the recommended Alternative 8 (Open Cut Replacement) and Alternative 10 (Pump Station and Force Main) to analyze future expenses for maintenance and equipment replacement. The results of that study indicated that the life cycle costs for both alternatives were essentially equal. In conclusion, and consistent with RMC's TM recommendation, the City selected Alternative 8 (Open Cut Replacement) for the Project.

The Project scope will include the replacement of approximately 650 feet of 8" diameter sewer main pipe located west and adjacent to Fulton Road between Place Drive and approximately 130 feet north of Santa Rosa Creek, rip-rap armoring of the creek channel, replacement of a retaining wall, and abandonment of the existing sewer main system.. The main will traverse through a section of the Santa Rosa Creek corridor that is channelized and contains riparian vegetation, which is maintained by Sonoma Water. The Project will also traverse through the Santa Rosa Creek Trail located along the northerly bank of the creek.

The Project will require the acquisition of three new sewer easements as well as permits and approvals from the following agencies: Federated Indians of Graton Rancheria, Sonoma Water, U.S Army Corps of Engineers (USACE), North Coast Regional Water Quality Control Board (Regional Board), California Department of Fish and Wildlife (CDFW), U.S. Fish and Wildlife Services (USFWS), and National Oceanic and Atmospheric Administration Fisheries (NOAA Fisheries).

California Environmental Quality Act Compliance

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In June 2022, an Initial Study/Mitigated Negative Declaration (IS/MND) was completed by B&R for the Project to satisfy the requirements of the California Environmental Quality Act (CEQA) (see Attachment 2). The IS/MND describes why the Project is being proposed, the potential impacts on the existing environment, and identified that, with the inclusion of specific environmental protection actions and mitigation measures as detailed in the MMRP (Appendix D, Attachment 2), potential impacts to air quality, biological resources, cultural resources, hazards/hazardous materials, noise, hydrology & water quality, and Tribal Cultural Resources will be reduced to a level considered to be *less than significant*. The following Project-specific monitoring actions were identified for implementation before and during construction:

- A qualified biologist shall conduct a preconstruction protocol-level survey to determine the presence of special status plants and a preconstruction bird nesting assessment survey if construction activities occur during nesting season.

In accordance with Assembly Bill 52 and CEQA guidelines, project notification letters were sent to two tribes in the area, including the Lytton Rancheria of California and the Federated Indians of Graton Rancheria. Lytton Rancheria acknowledged receipt of the consultation request and confirmed that no further consultation was required. The Federated Indians of Graton Rancheria requested consultation on alternatives to the projects, recommended mitigation measures, and significant effects of the projects. The Federated Indians of Graton Rancheria reviewed and provided comments on mitigation measures in the Draft IS/MND. While none of the improvements will impact identified cultural resources, trenching and underground work could uncover Tribal Cultural Resources. To address this concern, the following mitigation measures were included in the MMRP:

- A qualified professional archeologist and Native American monitor shall be retained to monitor ground-disturbing work associated with the Project.
- Work shall halt near the finding if human remains are uncovered during construction. The significance of the find shall be assessed, and the appropriate management shall be pursued.

A Tribal Monitoring Agreement with the Federated Indians of Graton Rancheria is currently being drafted.

The IS/MND was issued for public notice and review for 30 days, beginning June 30, 2022, and ending on July 29, 2022. The IS/MND was sent to the State Clearinghouse for a 30-day public review period and distribution to pertinent state agencies. The IS/MND was sent to local resource agencies and posted on the City's Transportation and Public Works Department website. A Notice of Intent to adopt the MND was published in the Santa Rosa Press Democrat on July 15, 2022, in accordance with CEQA requirements..

Comments were received from the California Department of Fish and Wildlife (CDFW). The CDFW letter is appended to the Response to Comments (see Attachment 3) and provides comments concerning potential impacts to fish, plant, and wildlife resources pursuant to

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CEQA Guidelines section 15386. CDFW requested additional information or additions/revisions to the mitigation measures. Additional information was provided, and mitigation measures contained in the draft MMRP were revised to address CDFW's comments (see Attachment 3). No new, avoidable significant effect was identified in the comments and the document revisions do not meet the requirement of "substantial revision" that would require recirculation (Section 15073.5(b) of the CEQA Guidelines). Additions or revisions to the requested analysis and mitigation measures/project revisions are consistent with the findings of the IS/MND.

PRIOR BOARD OF PUBLIC UTILITIES REVIEW

N/A

ANALYSIS

This proposed action will adopt the IS/MND and associated MMRP and approve the Project. The IS/MND identified that, with the inclusion of specific environmental protection actions, mitigation measures, and monitoring actions as part of the Project, potential impacts will be reduced to less than significant under CEQA.

Upon adoption of the MND and MMRP, and approval of the Project by the Board, a Notice of Determination (NOD) will be filed with the Sonoma County Clerk's Office and the State Clearinghouse, completing the environmental review process for the Project.

FISCAL IMPACT

Funds for this Project have been appropriated in the Water Department Capital Improvement Program budget.

ENVIRONMENTAL IMPACT

An Initial Study/Mitigated Negative Declaration was prepared in compliance with the California Environmental Quality Act (CEQA). A Notice of Intent to adopt the Mitigated Negative Declaration was posted with the California State Clearinghouse (SCH Number 2022060720) on July 30, 2022 and was published in the Press Democrat on July 15, 2022.

Comments were received from the California Department of Fish and Wildlife. As demonstrated in the Response to Comments, the IS/MND as noticed remains sufficient to adequately evaluate the environmental effects of the Project, and none of the conditions outlined within Section 15073.5 of the CEQA Guidelines requiring recirculation were met.

BOARD/COMMISSION/COMMITTEE REVIEW AND RECOMMENDATIONS

Not applicable.

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ATTACHMENTS

- Attachment 1 – Project Overview
- Attachment 2 - Initial Study / Mitigated Negative Declaration / MMRP
- Attachment 3 - Response to Comments
- Resolution

CONTACT

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