CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL

FROM: Kerrie Romanow
Matt Loesch
Jim Shannon

SUBJECT: **SEE BELOW**

DATE: March 27, 2023

Approved Jeffrey S. Maguire

Date 4/4/23

SUBJECT: REPORT ON BIDS AND AWARD OF CONSTRUCTION CONTRACT FOR 9850 - YARD PIPING IMPROVEMENTS PHASE 2 PROJECT AT THE SAN JOSE-SANTA CLARA REGIONAL WASTEWATER FACILITY

RECOMMENDATION

(a) Accept the report on bids and award of construction contract to the lowest responsive, responsible bidder, Michels Trenchless, Inc., in the amount of $16,855,430, for the 9850 – Yard Piping Improvements Phase 2 Project and approve a 15% construction contingency in the amount of $2,528,315.

(b) Adopt the following 2022-2023 Appropriation Ordinance Amendments in the San José-Santa Clara Treatment Plant Capital Fund:
   (1) Decrease the Digester and Thickener Facilities Upgrade appropriation to the Environmental Services Department by $2,300,000; and
   (2) Increase the Yard Piping and Road Improvements appropriation to the Environmental Services Department by $2,300,000.

SUMMARY AND OUTCOME

Award of the construction contract to Michels Trenchless, Inc. (Michels) will allow for construction and completion of the Yard Piping Improvements Phase 2 Project (Project) at the San José-Santa Clara Regional Wastewater Facility (RWF). Rehabilitation of the pipelines will reduce the risk of pipe failure and extend their remaining useful life. Approval of a 15% contingency will provide funding for unanticipated work that is necessary for the proper completion of the Project.

BACKGROUND

The RWF has over 300,000 linear feet (LF) of piping, 67,000 LF of which are wastewater process pipes. Seventy percent of the piping is more than 25 years old. The City completed a desktop study of the RWF's process pipes, which identified sixteen pipe segments, totaling 21,000 LF, as high priority for pipe rehabilitation. Six of these high priority pipes are shown on the Attachment – Project Location Map. These six pipes carry raw sewage, primary effluent and secondary effluent for various treatments, and are critical to the operations at the RWF for the treatment process. During the condition assessment performed in the dry seasons of 2018 - 2021, moderate to severe crown corrosions were observed in the following pipe segments that will be rehabilitated by this Project:

1. 441 LF of 48-inch Santa Clara Force Main using cured-in-place pipe liner, and 542 LF of 48-inch Santa Clara Force Main using geopolymer mortar and epoxy coating.
2. 739 LF of 120-inch raw sewage pipe using epoxy coating, and with 2 sections in 33 LF using Partial Depth Concrete Crown Repair.
3. 281 LF of 102-inch, 96-inch and 78-inch raw sewage using carbon fiber-reinforced polymer.
4. 1,100 LF of 84-inch Primary Effluent pipe using epoxy coating, and with multiple sections in 98 LF using Partial Depth Concrete Crown Repair.
5. 760 LF of 102-inch Nitrification Influent pipe using epoxy coating, and with 2 sections in 28 LF 102-inch Nitrification Influent and Nitrification Influent Junction Structure using Partial Depth Concrete Crown Repair.
6. 14 LF of 84-inch Secondary Effluent pipe and Secondary Effluent Junction Box 2 and 4 using Partial Depth Concrete Crown Repair and epoxy coating.

To prevent overflow from future sea level rise, this Project will also construct containment walls at Effluent Junction Structure 1, Fish Screens and No. 3 Water Wet Well.

Construction is scheduled to begin in May 2023, with substantial completion anticipated in October 2024.

ANALYSIS

The Project was advertised for bid on November 16, 2022. Two bids were received by the January 12, 2023 submittal deadline with the following results:

Contractor	City	Bid Amount	Variance Amount	Over/(Under) Percent
Adjusted Engineer's Estimate*	--	**$12,770,000**	--	--
Mountain Cascade, Inc. *(non-responsive)*	Livermore, CA	$15,701,000	$2,930,730	23
Michels Trenchless, Inc.	**Brownsville, WI**	**$16,855,430**	**$4,085,160**	**32**

** The original Engineer's Estimate was $12,200,000. There were two adjustments to the estimate after advertisement, including an allowance of $200,000 for contractor assistance for condition assessment of the 24" and 30" No. 3 Water Pipes and an allowance of $370,000 for No. 3 Water and Recycled Water tie-ins.*

Mountain Cascade, Inc.'s bid was deemed non-responsive due to the bidder's failure to provide specific project experience documentation requested by the City.

Michels bid is 32% over the Adjusted Engineer's Estimate. The Engineer's Estimate prepared by the design consultant was based on construction costs experienced over the last several years for similar municipal wastewater piping rehabilitation projects, as well as recent quotes obtained from special material vendors. The higher-than-expected bids received are likely to be a combination of the following factors:

1. The Bay Area is currently experiencing a high volume of construction, including a number of large municipal wastewater treatment projects. This likely contributed to the low number of bidders, despite outreach to the contractor community. Projects with less than three bidders typically receive bids that exceed the Engineer's Estimate due to reduced competition.
2. Despite recent cost data and vendor quotes being used to prepare the Engineer's Estimate, the continued unprecedented market conditions impacting material cost escalation, labor and equipment likely resulted in increased costs.
3. Specialized subcontractors for Cured-In-Place Pipe Lining, Geopolymer, Epoxy Coating and Carbon Fiber-Reinforced Polymer are in high demand. It is likely that general contractors are currently paying a premium for their services due to this demand. Availability of specialized labor may also have increased staffing costs if labor was pulled from out-of-state.

The combination of the high volume of work in the area, higher escalation for material costs, and demand for specialty subcontractors, are believed to have contributed to the higher bids.

In further evaluation of the bids, there is a 7% spread between the bids received. In the last three years of the design consultant's overall project bidding results, in California (19 total bids) show a 23% spread on average between first and second bidder when only two bids were received. The 7% spread gives staff confidence that overall bid cost from the lowest responsive bidder is reasonable.

Despite the bids being higher than the Engineer's Estimate, staff is recommending proceeding with the award of the contract to Michels for the following reasons:

1. Rehabilitation of the pipes in this project has been identified as a high priority due to the condition assessment results. Delaying the project will increase the risk of the raw sewage and primary effluent piping failure, resulting in higher operations and maintenance costs and possibly safety and permit violations.
2. Due to the need to rehabilitate some pipes in coordination with RWF planned 4-year maintenance shutdown cycle on Secondary A and B, and Nitrification A and B, in some cases it would not be possible to perform this rehabilitation for another four years, which would further increase the risk of pipe failure over this time period.
3. Re-bidding the project is not recommended as it is unlikely that future construction prices will be lower since construction activity in San José and the surrounding area has not shown imminent signs of slowing down, material escalation increases are expected to continue, and the criticality of this Project does not allow for a long delay in re-bidding the project.

Michels has completed similar yard piping construction projects for other local agencies within the past several years. The contractor has also worked on similar RWF projects, including 9002: 96-inch and 87-inch Settled Sewage Pipe Rehabilitation and 8142: Yard Piping Improvements Phase 1.

Contingency

San Jose Municipal Code Section 27.04.050 provides a standard contingency of 10% of the total contract amount for all public works contracts other than those involving the renovation of a building or buildings unless a different amount is approved by City Council. Staff recommends a 15% contingency for this project, which accounts for the challenge of maintaining continuous operations at the RWF during construction, in addition to complex project interfaces with rerouting primary effluent to the secondary treatment process, and raw sewage from City of Santa Clara to Headwork 2, potential utility conflicts, and other concurrent capital improvement projects.

Project Labor Agreement Applicability

This Project is subject to the Project Labor Agreement entered between the City of San José and the Santa Clara and San Benito Counties Building & Construction Trades Council.

Local and Small Business Outreach

Staff used Biddingo to outreach to local and small business enterprises. Chapter 4.12 of the San Jose Municipal Code defines a "local business enterprise" as one with a legitimate business presence in Santa Clara County and "small business enterprise" as a local business enterprise with 35 or fewer employees. Bid invitations were sent to 12,186 vendors and documents were downloaded by 51 vendors, approximately 4 of which were local. The recommended contractor

is not a local or a small business enterprise. In addition, no local or small business enterprises were listed as subcontractors.

EVALUATION AND FOLLOW-UP

No follow-up action with City Council is expected at this time. A progress report on this and other RWF capital projects will be made to the Transportation and Environment Committee meeting on an annual basis. Quarterly progress reports of the RWF Capital Improvement Program will also be submitted to the Treatment Plant Advisory Committee meeting and posted on the City's website.

FISCAL/POLICY ALIGNMENT

This Project is consistent with the City Council-approved budget strategy to focus on rehabilitating aging RWF infrastructure, improve efficiency, and reduce operating costs. This Project is also consistent with the budget strategy principle of focusing on protecting our vital core services.

COST SUMMARY/IMPLICATIONS

1.	AMOUNT OF RECOMMENDATION/COST OF PROJECT:	$16,855,430
	Project Delivery*	$7,232,891
	Construction	$16,855,430
	Contingency (15%)	$2,528,315
	Total Project Costs	$26,616,636
	Prior Year Expenditures	$2,807,058
	REMAINING PROJECT COSTS	**$23,809,578**

** Project delivery includes $1,519,006 for project management and environmental permitting during feasibility/development, $1,285,749 for project management during design, $231,171 for bid and award, $4,014,049 for construction management, and $182,916 for post-construction and project closeout. The Phase 2 project delivery cost is approximately 43% of the construction estimate, which is in line with project delivery costs for similar size capital projects in RWF.*

2. COST ELEMENTS OF CONTRACT:

Mobilization/Demobilization	$1,027,000
Rehabilitation/Improvements	$15,313,430
Allowances	$515,000
Total Contract Amount	$16,855,430

3. SOURCE OF FUNDING: 512 – San José-Santa Clara Treatment Plant Capital Fund. As the Yard Piping and Road Improvements appropriation in 2022-2023 also includes funding for the Phase 3 project that will be brought forward for City Council consideration at a later date, actions are included in this memorandum to reallocate $2.3 million from the Digester and Thickener Facilities Upgrade appropriation to ensure sufficient funding for completion of the Phase 2 Project. The Digester project was completed in February 2023 and there are sufficient project savings for reallocation.

4. FISCAL IMPACT: The Project will have no additional impact on the San José-Santa Clara Treatment Plant Operating Fund or the General Fund.

5. PROJECT COST ALLOCATION: In accordance with the recommendations set forth in the Capital Project Cost Allocations Technical Memo (Carollo Engineers, March 2016), this project is allocated between the four billable parameters relative to the rolling weighted average distribution of all RWF assets.

BUDGET REFERENCE

The table below identifies the fund and appropriations to fund the contract recommended as part of this memorandum and remaining project costs, including project delivery, construction, and contingency costs.

Fund #	Appn #	Appn. Name	Total Appn	Rec. Budget Action	Amt for Contract	2022-2023 Adopted Capital Budget Page	Last Budget Action (Date, Ord. No.)
512	7396	Yard Piping and Road Improvements	$19,016,000	$2,300,000	$16,855,430	280	10/18/2022 Ord. No. 30833
512	4127	Digester and Thickener Facilities Upgrade	$12,838,000	($2,300,000)	N/A	289	06/21/2022 Ord. No. 30790

COORDINATION

This Project and memorandum have been coordinated with the Planning, Building and Code Enforcement Department, the Finance Department, and the City Attorney's Office.

PUBLIC OUTREACH

This memorandum will be posted on the City's Council Agenda website for the April 25, 2023 City Council meeting.

COMMISSION RECOMMENDATION AND INPUT

This item is scheduled to be heard at the April 13, 2023 Treatment Plant Advisory Committee meeting. A supplemental memo with the committee's recommendation will be included in the amended April 25, 2023 City Council meeting agenda.

CEQA

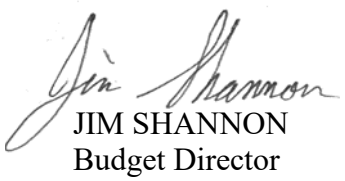
Addendum to the Environmental Impact Report for the San José/Santa Clara Water Pollution Control Plant Master Plan (SCH# 2011052074), Yard Piping and Road Improvements Project, File No. PP19-063.

PUBLIC SUBSIDY REPORTING

This item does not include a public subsidy as defined in section 53083 or 53083.1 of the California Government Code or the City's Open Government Resolution.

/s/
KERRIE ROMANOW
Director, Environmental Services Department

/s/
MATT LOESCH
Acting Director of Public Works

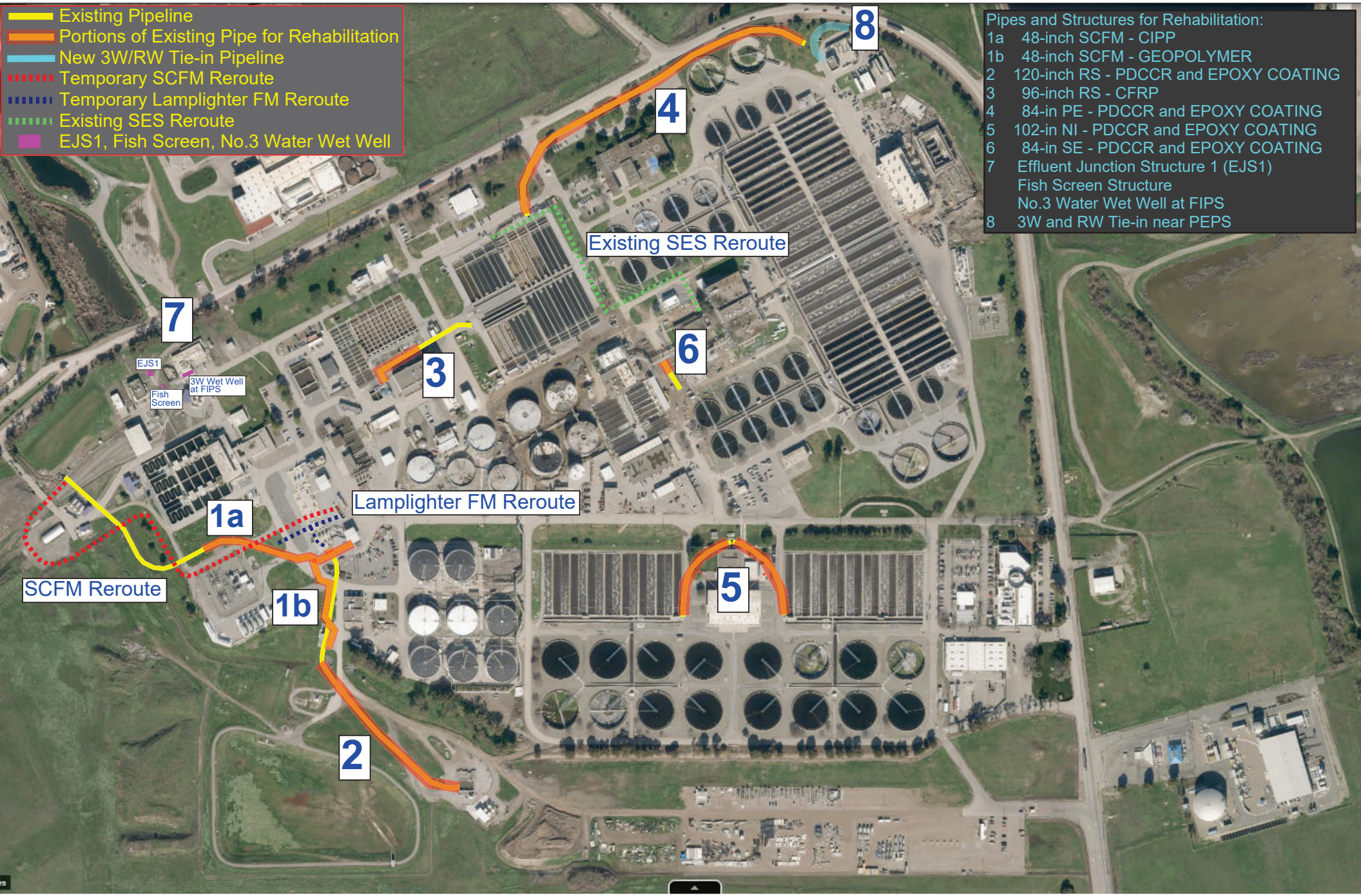


JIM SHANNON
Budget Director

For questions, please contact Napp Fukuda, Assistant Director, Environmental Services Department at (408) 793-5353.

ATTACHMENT: Project Location Map

ATTACHMENT


Existing Pipeline
Portions of Existing Pipe for Rehabilitation
New 3W/RW Tie-in Pipeline
Temporary SCFM Reroute
Temporary Lamplighter FM Reroute
Existing SES Reroute
EJS1, Fish Screen, No.3 Water Wet Well
Pipes and Structures for Rehabilitation:
1a 48-inch SCFM - CIPP
1b 48-inch SCFM - GEOPOLYMER
2 120-inch RS - PDCCR and EPOXY COATING
3 96-inch RS - CFRP
4 84-in PE - PDCCR and EPOXY COATING
5 102-in NI - PDCCR and EPOXY COATING
6 84-in SE - PDCCR and EPOXY COATING
7 Effluent Junction Structure 1 (EJS1)
Fish Screen Structure
No.3 Water Wet Well at FIPS
8 3W and RW Tie-in near PEPS
Existing SES Reroute
Lamplighter FM Reroute
SCFM Reroute
EJS1
Fish Screen
3W Wet Well at FIPS
1a
1b
2
3
4
5
6
7
8