



Posting Date: 10-21-2021

## NOTICE OF SPECIAL MEETING OPERATIONS COMMITTEE/BOARD OF DIRECTORS (OPERATIONS)

(Per paragraph 3 on page 10 under subsection *Committee Meetings* of the Board Handbook: The Board, as a practice, generally does not take final action on items during committee meetings, unless District staff determines the urgency of the item requires immediate action that cannot be delayed until a subsequent regular bi-monthly Board meeting.)

**MEETING DATE:** 10-26-2021

**TIME:** Meeting begins at **9:30 a.m. (Public)**

**LOCATION:** This meeting will be held virtually, pursuant to Assembly Bill (AB) 361.

To participate online, go to <https://us06web.zoom.us/j/85087665341>. You can also participate by phone by calling 1-669-900-6833 and entering the webinar ID#: 850 8766 5341.

**PARTICIPATION DURING MEETINGS:** During the public comment periods, the public may comment by clicking the “raise hand” button on the bottom of the Zoom screen; if you are joining by phone and would like to comment, press \*9 and we will call on you as appropriate.

**EMAILED PUBLIC COMMENTS:** You may submit your comments in advance of the meeting by emailing them to [BoardComment@MarinWater.org](mailto:BoardComment@MarinWater.org). All emailed comments received by 7:30 a.m. on the day of the meeting will be provided to the Board of Directors prior to the meeting. All emails will be posted on our website. (Please do not include personal information in your comment that you do not want published on our website such as phone numbers and home addresses.)

AGENDA ITEMS	RECOMMENDATIONS
<b>Call to Order and Roll Call</b>	
<b>Adopt Agenda</b>	<i>Approve</i>
<b>Public Comment</b> <i>Members of the public may comment on any items not listed on the agenda during this time. Comments will be limited to three minutes per speaker, and time limits may be reduced by the Committee Chair to accommodate the number of speakers and ensure that the meeting is conducted in an efficient manner.</i>	

**MARIN WATER BOARD OF DIRECTORS:** LARRY BRAGMAN, JACK GIBSON, CYNTHIA KOEHLER, LARRY RUSSELL, AND MONTY SCHMITT

<b>AGENDA ITEMS</b>	<b>RECOMMENDATIONS</b>
<b>Calendar</b>	
1. Minutes of the Operations Committee/Board of Directors (Operations) Meeting of September 17, 2021 <i>(Approximate time 1 minute)</i>	<i>Approve</i>
2. Amendment No. 1 to Professional Services Agreement with Kennedy Jenks Consultants for the Smith Saddle Tanks Rehabilitation Project <i>(Approximate time 15 minutes)</i>	<i>Review and Refer for Board Approval</i>
3. Fire Flow Improvement Program Ridge Road Pipeline Replacement Project <i>(Approximate time 10 minutes)</i>	<i>Review and Refer for Board Approval</i>
4. 3 <sup>rd</sup> Street Rehabilitation Project Memorandum of Understanding for Project Reimbursement with the City of San Rafael <i>(Approximate time 10 minutes)</i>	<i>Review and Refer for Board Approval</i>
5. Recycled Water Pipeline Feasibility <i>(Approximate time 10 minutes)</i>	<i>Information</i>
<b>Adjournment (10:16 a.m. - Time Approximate)</b>	

**ADA NOTICE AND HEARING IMPAIRED PROVISIONS:**

In accordance with the Americans with Disabilities Act (ADA) and California Law, it is Marin Water’s policy to offer its public programs, services, and meetings in a manner that is readily accessible to everyone, including those with disabilities. If you are a person with a disability and require a copy of a public hearing notice, an agenda, and/or agenda packet in an appropriate alternative format, or if you require other accommodations, please contact Board Secretary Terrie Gillen at 415.945.1448, at least two days in advance of the meeting. Advance notification will enable the Marin Water to make reasonable arrangements to ensure accessibility.

AGENDAS ARE AVAILABLE FOR REVIEW AT THE CIVIC CENTER LIBRARY, CORTE MADERA LIBRARY, FAIRFAX LIBRARY, MILL VALLEY LIBRARY, MARIN WATER OFFICE, AND ON THE MARIN WATER WEBSITE (MARINWATER.ORG)

**FUTURE BOARD MEETINGS:**

- ❖ Thursday, October 28, 2021  
Finance & Administration Committee/Board of Directors (Finance & Administration) Meeting  
9:30 a.m.

  
Board Secretary



**Item Number:** 01  
**Meeting Date:** 10-26-2021  
**Meeting:** Operations  
Committee/Board of Directors  
(Operations)

## Approval Item

### TITLE

Minutes of the Operations Committee/Board of Directors (Operations) Meeting of September 17, 2021

### RECOMMENDATION

Approve the adoption of the minutes.

### SUMMARY

On September 17, 2021, the Operations Committee/Board of Directors (Operations) held a meeting. The minutes of the meeting are attached.

### DISCUSSION

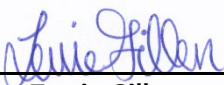
None

### FISCAL IMPACT

None

### ATTACHMENT(S)

1. Minutes of the Operations Committee/Board of Directors (Operations) Meeting of September 17, 2021

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Communications & Public Affairs Department	 Terrie Gillen Board Secretary	 Ben Horenstein General Manager

**MARIN MUNICIPAL WATER DISTRICT  
OPERATIONS COMMITTEE /BOARD OF DIRECTORS (OPERATIONS) MEETING**

**MINUTES**

**Friday, September 17, 2021**

**Via teleconference**

(In accordance with Governor Gavin Newsom's Executive Order N-29-20)

**DIRECTORS PRESENT:** Larry Bragman, Monty Schmitt, and Larry Russell

**DIRECTORS ABSENT:** Jack Gibson and Cynthia Koehler

**CALL TO ORDER:** Chair Russell called the meeting to order at 9:04 a.m.

**ADOPT AGENDA:**

On motion made by Director Bragman and seconded by Director Schmitt, the board approved the adoption of the agenda. The board took the following roll call vote:

Ayes: Directors Bragman, Schmitt, and Russell

Noes: None

Absent: Directors Gibson and Koehler

**PUBLIC COMMENT ONLY ON CLOSED SESSION ITEM 1:**

There were no public comments.

**CONVENE TO CLOSED SESSION AT OR AFTER 9:01 AM**

The Board of Directors and staff left for the closed session. Directors Gibson and Koehler were already present at the closed session zoom venue.

**CLOSED SESSION ITEM**

1. Conference with Legal Counsel – Existing Litigation  
(Government Code §54956.9)

Walker v. Marin Municipal Water District  
Marin Superior Court  
Case No. CIV 1501914

The directors and staff conversed on this item.

**CONVENE TO OPEN SESSION AT OR AFTER 9:30 AM**

The open session began at 9:34 a.m.

**CLOSED SESSION REPORT OUT**

Chair Russell stated that they had a closed session and no reportable action was taken.

**CALENDAR ITEMS:**

**ITEM 2. MINUTES OF THE OPERATIONS COMMITTEE /BOARD OF DIRECTORS (OPERATIONS) SPECIAL MEETING OF AUGUST 30, 2021**

On motion made by Director Gibson and seconded by Director Schmitt, the board approved the minutes by the following roll call vote:

Ayes: Directors Bragman, Gibson, Koehler, Schmitt, and Russell  
Noes: None

There were no public comments.

**ITEM 3. SEEGAR DAM SPILLWAY REPAIR UPDATE**

Assistant Engineer Matthew Steiner presented this item. Conversation ensued between the board and staff.

There were no public comments.

This was an informational item. The board did not take any formal action.

**ITEM 4. PINE MOUNTAIN TUNNEL REPLACEMENT PROJECT UPDATE**

Engineering Design Manager Alex Anaya brought forth this item. Questions and answers between the board and staff occurred throughout the presentation.

There were two public comments.

This was an informational item. The board did not take any formal action.

**ITEM 5. EMERGENCY DROUGHT PROJECTS UPDATE**

Operations Director Paul Sellier presented this item. Discussion followed with the directors including their request that staff bring forth an update on the Antioch desalination efforts and asking staff for a more robust update on new water connections in the district.

There were four public comments.

This was an informational item; therefore, the board took no formal action.

Both Directors Koehler and Schmitt left the meeting around 11 a.m. for other work-related meetings.

**ITEM 6. AWARD OF CONTRACT NO. 1956 FOR FURNISHING AND DELIVERY OF MOTOR FUELS**

Acting Operations Director Darren Machado brought forth this item. Short conversation occurred thereafter.

There were no public comments.

On motion made by Director Bragman and seconded by Director Gibson, they referred this item to a future board meeting for approval.

**ITEM 7. PEACOCK GAP RECYLED WATER PIPELINE REQUEST FOR PROPOSALS**

Engineering Design Manager Anaya also presented this item. Conversation ensued.

There were no public comments.

On motion made by Director Gibson and seconded by Director Bragman, they referred this item to a future board meeting for approval.

Director Bragman left at 11:30 for a work-related matter.

**ITEM 8. SOUTHERN MARIN PIPELINE REPLACEMENT PROJECT PHASE II**

Associate Engineer Jake Miller presented this item. There were neither comments from the board nor public comments.

On motion made by Director Gibson and seconded by Chair Russell, they referred this item to a future board meeting for approval.

**ADJOURNMENT**

There being no further business, the Operations Committee/Board of Directors (Operations) meeting adjourned at 11:32 a.m.

---

Board Secretary




**Item Number:** 02  
**Meeting Date:** 10-26-2021  
**Meeting:** Operations  
Committee/Board of Directors  
(Operations)

## Review and Refer for Board Approval

---

**TO:** Operations Committee/Board of Directions (Operations)

**FROM:** Crystal Yezman, Director of Engineering 

**THROUGH:** Ben Horenstein, General Manager 

**DIVISION NAME:** Engineering

**ITEM:** Amendment No. 1 to Professional Services Agreement with Kennedy Jenks Consultants for the Smith Saddle Tanks Rehabilitation Project (D21010)

---

### SUMMARY

District staff presented to the Operations Committee, on July 17, 2021, the findings of a comprehensive structural evaluation report (Report) of the Smith Saddle Tanks by Kennedy Jenks Consultants (Consultant). The Report evaluated the structural integrity, seismic deficiencies, interior and exterior coating, safety, security, and site area improvement of both tanks. The Report concluded that both of the Smith Saddle Tanks' roof structures and upper shell rings have significant areas of corrosion damage due to the failure of the original tank protective coatings. The Report included a detailed cost breakdown of three rehabilitation alternatives along with a recommendation for alternative selection.

Staff received a follow-up request from the July Operations Committee meeting for the Consultant to further evaluate the tank's steel floor and update the Report with findings and conclusions. Attached is Amendment No. 1 to Professional Services Agreement MA-5909 to conduct additional tank steel floor evaluation of both tanks and revise the Report.

District staff recommend that the Committee review and refer this item to a future regular bi-monthly Board meeting with the Committee's recommendation for approval.

### DISCUSSION

The Smith Saddle Tanks consist of two five million gallon (5 MG) potable water storage tanks constructed in 1960 of welded steel. The tanks are of identical design and located next to each other in the foothills above the Town of Fairfax, near White Hill Middle School. The exterior of the tanks has been recoated once, in 1983, and are now 38-years old. The interior coatings are original and are now nearly 60 years old.

The Smith Saddle Tanks are some of the largest transmission storage tanks in the District's system. They are the main transmission storage tanks between San Geronimo Treatment Plant and the rest of the District's potable water distribution system. More potable water cycles through the Smith Saddle Tanks than any other tanks in the District.

The Smith Saddle Tanks have been in service for 60 years and their interior and exterior coatings have reached the end of their useful lives - extensive corrosion has formed throughout the roof structures of the tanks. Previous inspection reports and video inspections have documented the interior conditions of the tanks, summarizing interior coating failures and severe corrosion on the roof structures of the tanks, the rafters and entry points, and specifically above the waterline.

Based on the previous inspections, noted above, staff has determined the tanks require major rehabilitation in order to continue to serve the District customers at their full capacity. As a result, District staff issued a Request for Proposals seeking a qualified engineering consulting firm to conduct a comprehensive structural and seismic evaluation of the tanks. Kennedy Jenks Consultants (Consultant) provided the best proposal and a professional services contract was approved at the February 16, 2021 Board meeting.

The Consultant conducted a comprehensive evaluation of the tanks including structural, seismic, interior and exterior coating, safety, security and site area improvement evaluation. One of the tanks was completely drained and a detailed interior inspection of the floor, shell and roof steel framing and plates along with protective coatings was conducted. The structural and seismic evaluation identified significant areas of the existing tank's construction that are not in conformance with national standards which result in deficiencies in structural performance. Examples of structural deficiencies include lack of tank anchorage and strengthening to decrease potential overturning during earthquakes and calculated wave heights generated during earthquakes exceed available tank capacity when the tank is full.

Interior inspection of the floor, shell and roof found that the coal tar coating exhibited numerous blister domes being fractured and exposing the steel underneath. Numerous rust chips from the underside of the roof and roof framing members had delaminated and fallen off and settled on the floor of the tank. The upper tank shell and roof plate within the vapor area above the water surface has loss of metal along with excessive pitting. Severe active corrosion was observed on the roof channel beam flanges showing moderate metal loss.

Staff received a follow-up request from the Operations Committee during its July meeting for the Consultant to conduct an expanded evaluation of the tank's steel floor and update the Report with findings and conclusions.

Once the additional floor condition assessment has been completed and evaluated by the District, staff will make a recommendation, along with a request to proceed, with the optional tasks with the Consultant to develop plans, specifications and finalized construction estimate along



with the required environmental documentation and permitting for this project at a future Board meeting.

**FISCAL IMPACT**

Amendment No. 1 to Professional Services Agreement MA - 5909 for the Smith Saddle Tanks Rehabilitation Project is \$58,698. The Original Contract Amount for the condition evaluation report is \$213,097 with a staff requested contingency of \$22,000. Total cost for the contract with Kennedy Jenks Consultants, Inc. will increase to a not-to-exceed amount of \$271,795, with an updated staff requested contingency of \$27,000 for a total amount of \$298,795.

Fiscal Impact

Contract Award:	\$213,097
Amendment No. 1	\$58,698
Updated Contingency:	\$27,000
Total Budget with Contingency:	\$298,795

**Proposed Project Implementation:**

Amendment No. 1 for Professional Services Executed	November 16, 2021
Tank #1 and #2 Steel Floor Evaluation	January/February 2022
Agreement for Professional Design Services Executed	March 2022
Design and Environmental completed	September 2022
Advertise Project	September 2022
Bid Opening	October 2022
Award Contract	November 2023
Submittal review and Site Access Improvements completed	October 2023
Construction Start - Tank 1 of 2 (Tentative)	November 1, 2024
Construction Finish - Tank 1 of 2 (Tentative)	April 29, 2024
Construction Start - Tank 2 of 2 (Tentative)	November 1, 2024
Construction Finish - Tank 2 of 2 (Tentative)	April 30, 2025

*Note: The Smith Saddle Tanks are a critical asset and must be rehabilitated one-at-a-time, throughout the low-demand seasons of fall and winter. Tank rehabilitation during high-demand seasons of spring and summer is not feasible.*

**ATTACHMENT(S)**

1. Amendment No. 1 to Professional Services Agreement MA - 5909 for the Smith Saddle Tanks Rehabilitation Project

**AMENDMENT NO. 1 TO  
AGREEMENT FOR PROFESSIONAL SERVICES BETWEEN  
MARIN MUNICIPAL WATER DISTRICT and Kennedy Jenks  
(Miscellaneous Agreement No. 5909)**

This Contract Amendment (“First Amendment”) is entered into by and between Marin Municipal Water District (“District”) and Kennedy Jenks (“Consultant”).

For good and valuable consideration the receipt and adequacy of which is hereby acknowledged, the parties hereto agree as follows:

Section 1. Recitals:

- A. District and Consultant entered into an Agreement for Professional Services dated February 18, 2021 (“Agreement”), which expires May 31, 2022.
- B. The parties desire to enter into this First Amendment to the Agreement to provide additional services beyond the original scope of work.

Section 2. Terms:

- A. Amendment to Agreement: This First Amendment modifies the Agreement. Except for the modifications contained herein, all the terms of the Agreement shall apply.

- B. Terms:

- 1. **PART A – SPECIFIC PROVISIONS Section 1** entitled “**Description of Services and Payment**” subsections (a-c) are hereby deleted in their entirety and replaced to read as follows:
  - a. The scope of work covered by this Agreement shall be that included in Attachment A of this Agreement and Attachment A-1 of the First Amendment, which is attached hereto and incorporated by this reference.
  - b. The fee and fee payment for such work shall be as stipulated under the fee schedule included in Attachment B of this Agreement and Attachment B-1 of the First Amendment, which is attached hereto and incorporated by this reference. The total expenditures for this work shall not exceed \$271,795.
  - c. Based on the findings of the evaluation covered herein, the District shall have the option to negotiate and execute an amendment, based on the fee schedule as identified in subsection b above, for Optional Task 4- Environmental Documentation and Optional Task 5- Design as identified in Attachment A of this Agreement.
- 2. Notwithstanding any other provisions of the Agreement, performance of the services specified in Attachment A-1 shall be completed by April 30, 2022.

**KENNEDY JENKS**

Dated: \_\_\_\_\_

By \_\_\_\_\_  
Joel Faller, P.E. Vice President

**MARIN MUNICIPAL WATER DISTRICT**

Dated: \_\_\_\_\_

By \_\_\_\_\_  
Bennett Horenstein, General Manager

## MMWD Smith Saddle Tanks Rehabilitation

### Contract Amendment No. 1

This Contract Amendment No. 1 is for Kennedy Jenks Consultants (KJ) to provide additional engineering services to Marin Municipal Water District (MMWD or District) for the Smith Saddle Tanks Rehabilitation Project.

Under the original Agreement (dated March 3, 2021), KJ and its subs performed structural and seismic evaluations of the Smith Saddle Tanks, developed recommendations for modifications and repairs, and compared alternatives to retrofit or replace the tanks. The final evaluation report was submitted on July 7, 2021. The original Agreement also includes a provision for future Phase 2 Final Design, which has not yet been authorized.

Additional engineering support services under this Contract Amendment No. 1 include: 1) performing a survey of the tank steel floor thicknesses; 2) updating the evaluation report based on the survey findings; and 3) incorporating additional MMWD Board comments received in September 2021 into the Revised Evaluation Report.

### Scope of Work

This amendment will supplement the project scope contained in the original agreement as follows:

Task 1 – Project Management and Administration

- 1.2 – Project Administration (Supplement)

Task 3 – Site Review

- 3.6 – Floor Plate Thickness Survey (New)
- 3.7 – Revised Evaluation Report (New)

**Task 1 – Project Management**

#### **1.2 - Project Management and Administration (*Supplement*)**

Kennedy/Jenks will provide project management and administration services as described in Task 1.2 of the original Agreement for the additional scope of work described under Tasks 3.6 and 3.7 below.

**Task 3 – Site Evaluation**

#### **3.6 – Floor Plate Thickness Survey (*New*)**

Kennedy/Jenks's subconsultant, V&A Engineering, will perform a floor plate thickness survey of the two tanks over four days (two days per tank). The following items are included in the assessment:

- a. V&A will conduct ultrasonic testing of the floor plates. Up to 200 measurements per tank will be collected. Approximately 95 measurements will be recorded on the floor plates approximately 2 inches next to the shelf wall. Up to 55 floor spot thickness readings and approximately 50 targeted

October 13, 2021

thickness readings will be taken based on the results of the floor perimeter and spot thickness measurements. An Olympus 38DL and Epoch XT will be used to record the measurements.

- b. V&A will measure pit depth where significant metallic corrosion pitting is observed, and a UT measurement is not successful. A pit depth gauge will be used to measure the cavity of the pit.
- c. V&A will document the inspection with digital photographs. A minimum of 15 photos will be obtained.
- d. V&A will provide a confined space entry attendant, ventilation, gas monitoring, and engineering staff knowledgeable with recording UT measurements.
- e. V&A will disinfect their equipment and personnel PPE prior to entering the tank, using onsite sprayers. V&A will not disinfect the interior of each tank after the work is completed.

**Deliverables:**

1. Floor plate thickness survey report containing raw data, data analysis, tank background information, and a sketch of the measurement locations. (Electronic, Adobe pdf Format)

**Assumptions:**

1. The floor thickness evaluation will be performed during the winter seasonal demand period. The District will drain the water storage tanks for inspection.
2. V&A will comply with Cal OSHA safety requirements; however, a safety plan will not be submitted prior to the site visits.
3. The District will provide Lock Out/Tag Out (LOTO) procedures for the evaluation of the tanks to provide safe entry.
4. KJ and its subconsultants will disinfect their equipment and personnel prior to entering the tank, using on-site sprayers. KJ and its subconsultants will not clean existing debris from inside the tank or provide for "whole tank" disinfection.

**3.7 – Revised Evaluation Report (*New*)**

KJ will revise the Final Evaluation Report based on the findings of the floor plate thickness survey. KJ will include a summary of the results, updated recommendations (if applicable), and updated Opinions of Probable Cost (OPCC). KJ will also incorporate responses to comments received from the MMWD Board of Directors in the email correspondence (initial comments dated September 21, 2021).

This task includes associated Quality Control review of the Revised Evaluation Report. This review will be conducted by a Senior Kennedy/Jenks engineer who is familiar with but not directly associated with the project.

Kennedy/Jenks shall prepare and submit the Final Report to the District.

**Deliverables:**

1. Revised Final Evaluation Report (Electronic, Adobe pdf format).

## Budget

The proposed fee based on this scope of services is summarized in the table below. The budget estimate for Contract Amendment 1 is \$58,698 for a revised contract total of \$271,795. A breakdown of the budget estimate by task is provided in the attached Fee Estimate table.

<b>Task Name</b>	<b>Work Budget</b>
Task 1.2 – Project Administration	\$4,940
Task 3.6 – Floor Thickness Evaluation	\$42,484
Task 3.7 – Revised Evaluation Report	\$11,274
<b>Amendment Total</b>	<b>\$ 58,698</b>
<b>Original Contract Budget</b>	<b>\$ 213,097</b>
<b>Revised Total Budget</b>	<b>\$ 271,795</b>

## Schedule

Kennedy/Jenks's schedule and compensation are based on providing the above services for a period of 3 months from the Notice to Proceed (NTP) of this Contract Amendment No. 1. If the schedule for the District extends beyond 3 months and Kennedy/Jenks's continued services are required, Kennedy/Jenks will request an amendment to the Contract before incurring additional cost.

Attachment: Contract Amendment No. 1 Fee Estimate

# Proposal Fee Estimate

CLIENT Name: Marin Municipal Water District  
 PROJECT Description: Smith Saddle Tanks Rehabilitation  
 Proposal/Job Number: 2168002\*00 10/13/2021

**Contract Amendment No. 1**

January 1, 2021 Rates	Joel Faller Eng-Sci-9	Don Barraza Eng-Sci-8	Janet Hoffman Eng-Sci-6	Marie Fawcett Eng-Sci-4	Project Assistant		KJ	KJ	Sub	KJ				
Classification:						Total	Labor	Comm. Charges	V&A Engineering	Sub-Markup	Total Labor	Total Subs	Total Expenses	Total Labor + Subs + Expenses
Hourly Rate:	\$310	\$295	\$245	\$205	\$130	Hours	Fees	4%	Sub	5%				Fees
<b>Task 1 - Project Management</b>														
1.2 Project Administration		6		12	4	22	\$4,750	\$190		\$0	\$4,750	\$0	\$190	\$4,940
<i>Phase 1 - Subtotal</i>	0	6	0	12	4	22	\$4,750	\$190	\$0	\$0	\$4,750	\$0	\$190	\$4,940
<b>Task 3 - Site Review</b>														
3.6 Floor Thickness Evaluation		8		2	2	12	\$3,030	\$121	\$37,460	\$1,873	\$3,030	\$39,333	\$121	\$42,484
3.7 Revised Evaluation Report	2	24	4	8	4	42	\$10,840	\$434		\$0	\$10,840	\$0	\$434	\$11,274
<i>Phase 3 - Subtotal</i>	2	32	4	10	6	54	\$13,870	\$555	\$37,460	\$1,873	\$13,870	\$39,333	\$555	\$53,758
<b>All Phases Total</b>	<b>2</b>	<b>38</b>	<b>4</b>	<b>22</b>	<b>10</b>	<b>76</b>	<b>\$18,620</b>	<b>\$745</b>	<b>\$37,460</b>	<b>\$1,873</b>	<b>\$18,620</b>	<b>\$39,333</b>	<b>\$1,490</b>	<b>\$58,698</b>



Item Number: 03  
 Meeting Date: 10-26-2021  
 Meeting: Operations  
 Committee/Board of Directors  
 (Operations)

## Review and Refer for Board Approval

**TO:** Operations Committee/Board of Directors (Operations)

**FROM:** Crystal Yezman, Director of Engineering *CY*

**THROUGH:** Ben Horenstein, General Manager *BH*

**DIVISION NAME:** Engineering

**ITEM:** Fire Flow Improvement Program Ridge Road Pipeline Replacement Project (F21002)

### SUMMARY

The Fire Flow Improvement Program Ridge Road Pipeline Replacement Project (Project) will install approximately 5,310 feet of new pipe to replace old, undersized fire flow deficient pipe in the Town of Tiburon in coordination with other municipal projects in the area to minimize inconvenience to the public. On November 2, 2021, the District will open construction bids for the Project. District staff will make a recommendation for contract award at a future regularly scheduled Board meeting.

### DISCUSSION

The Fire Flow Improvement Program Ridge Road Pipeline Replacement Project (Project) is a component of the District’s Fire Flow Improvement Program. This project will replace 5,310 feet of leak prone, undersized piping installed as early as 1952 in coordination with the Town of Tiburon’s paving project to minimize inconvenience to the public. The Project will take place in the location described in Table 1 and shown on the map provided in Attachment 1.

**Table 1  
 Pipeline Replacement Locations**

Street	Length	Installation Date	Existing Size & Type
Lagoon View Dr.	1,310 ft	1953	6" CIP
Mountain View Dr.	1,470 ft	1953	6" CIP
Ridge Road	2,060 ft	1952	6" CIP
Between Ridge Road & Mountain View Drive	470 ft	1953	6" CIP

\*CIP = cast iron pipe



These street segments were evaluated for the installation of recycled water piping. There are no recycled water pipelines near the Project site, and there is no plan for recycled water services in the areas at this time; therefore, installation of recycled water pipelines was not included in this Project.

Summaries of the estimated Project costs and schedule are provided below.

**Budget:**

Engineer's Estimate:	\$1,760,000
Contingency:	\$170,000
Materials and Professional Fees:	\$260,000
District Labor/Inspection:	\$330,000
Total Budget:	\$2,520,000
Budget Category:	A2A

**Proposed Project Implementation:**

Project Advertisement:	October 19, 2021
Bid Opening:	November 2, 2021
Project Award:	November 16, 2021
Estimated Completion Date:	May 31, 2022
Duration:	180 days

**ENVIRONMENTAL REVIEW**

The Director of Engineering has determined that the Project is Categorically Exempt pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15302(c), Replacement or Reconstruction. The Project qualifies for exemption pursuant to Section 15302(c) inasmuch as it is the replacement of existing water pipeline involving negligible or no expansion of capacity.

**PUBLIC OUTREACH EFFORTS**

The District's multi-step process for notifying customers about this Project began in January 2021 when District staff initiated discussions with the Town of Tiburon. District staff has continually coordinated with the public works departments and has discussed the Project with other stakeholders. Public outreach steps to be taken are described in the table below.

<b>Department</b>	<b>Action</b>
Engineering	Issued letter with map to all customers along the Project route
Engineering	Upon approval of the contract by the Board, send Project information letter with a map to all customers along the Project route.
Public Information	Issue news release to local media (print and online outlets).
Public Information	Post on MMWD website.
Public Information	Post on MMWD Nextdoor page for affected neighborhoods.
Public Information	Send notice to the Town of Tiburon for posting on their website.
Engineering	Provide signage at Project site throughout construction period.

**FISCAL IMPACT**

The total cost to complete the Fire Flow Improvement Program Ridge Road Pipeline Replacement Project is estimated at \$2,520,000.

**ATTACHMENT(S)**

1. Site Map

# RIDGE ROAD FIREFLOW IMPROVEMENT PIPELINE REPLACEMENT PROJECT

INSTALLING 470 FT  
OF 10" HDPE PIPE

INSTALLING 4,840 FT  
OF 8" WSP PIPE

CONNECT TO EXISTING 6" CAST IRON PIPE



**MARIN MUNICIPAL  
WATER DISTRICT**  
marinwater.org  
415-945-1455  
contactus@marinwater.org





**Item Number:** 04  
**Meeting Date:** 10-26-2021  
**Meeting:** Operations  
Committee /Board of Directors  
(Operations)

## Review and Refer for Board Approval

---

**TO:** Operations Committee/Board of Directors (Operations)

**FROM:** Crystal Yezman, Director of Engineering 

**THROUGH:** Ben Horenstein, General Manager 

**DIVISION NAME:** Engineering

**ITEM:** 3<sup>rd</sup> Street Rehabilitation Project Memorandum of Understanding for Project Reimbursement with the City of San Rafael

---

### SUMMARY

The District and the City of San Rafael (City) are jointly pursuing a major road and water infrastructure improvement project along 3<sup>rd</sup> Street (Project) to be administered by the City as part of the City's 3<sup>rd</sup> Street Rehabilitation Project. This cost-effective approach minimizes public impact and disruption. The project includes extensive upgrades and improvements of up to 1.4 miles of roadway from Union Street to 2<sup>nd</sup> St, and installation of up to 6,570-feet of new water main pipeline. The City will administer and manage the construction contract with the District inspecting the pipeline portion of the Project. The mechanism of payment for this joint project is a reimbursement agreement between the City of San Rafael and the District. Construction bids are due to the City on December 2<sup>nd</sup>.

District staff will make a recommendation to authorize the General Manager to negotiate and execute a reimbursement agreement between the City of San Rafael and MMWD for the 3<sup>rd</sup> Street Rehabilitation Project at a future regularly scheduled Board meeting.

### DISCUSSION

The City of San Rafael and the District have been working together since 2017 to combine replacement of the District's water facilities along 3<sup>rd</sup> Street with the City's 3<sup>rd</sup> Street Rehabilitation Project under one construction contract to be administered by the City. Installation of the District's pipeline as part of the City of San Rafael's 3<sup>rd</sup> Street Rehabilitation Project is a unique opportunity that will allow the District to reduce expense, avoid more extensive disruption and negative impacts to traffic and residents in the same section of 3<sup>rd</sup> Street, and enables the District to serve its customers in a cost-effective manner.

The City of San Rafael's 3<sup>rd</sup> Street Rehabilitation Project includes rehabilitation of up to 1.4 miles of 3<sup>rd</sup> Street between Union Street to 2<sup>nd</sup> St. The Project includes several elements to

reduce traffic congestion, improve pavement condition, and enhance safety for motorists, bicyclists, pedestrians, and transit users. Furthermore, the project includes replacement of the District's water mains along 3<sup>rd</sup> Street, including:

- Abandonment of up to 3/4 mile of 95-year old 6-inch cast iron pipe along 3<sup>rd</sup> Street.
- Installation of up to 6,570-feet of new 8-inch, 6-inch and 4-inch welded steel pipe along 3<sup>rd</sup> Street from San Rafael High School to Hayes Street (see Attachment 1).
- Replacement of up to 54 water services.

The City of San Rafael will issue its notice inviting construction bids on November 4<sup>th</sup>, and bids are due on December 2<sup>nd</sup>.

In summary, District staff will recommend the Board authorize the General Manager to negotiate and execute a reimbursement agreement between the City of San Rafael and MMWD for the 3<sup>rd</sup> Street Rehabilitation Project in an amount not to exceed \$2,870,846 for the construction cost, construction management fee and paving credit. A copy of the draft agreement is provided in Attachment 2.

These street segments were evaluated for the installation of recycled water piping. There are no recycled water pipelines near the Project site and there is no plan for recycled water services in the areas at this time, therefore installation of recycled water pipelines was not included in this Project.

Summaries of the estimated Project costs and schedule are provided below.

**Budget:**

Engineer's Estimate Pipeline Project:	\$2,515,000
Construction Management Fee:	\$196,275
<u>Paving Credit:</u>	<u>\$159,571</u>
Subtotal Reimbursement Agreement:	\$2,870,846
7% Construction Contingency:	\$176,000
<u>Contaminated Soil Disposal Contingency:</u>	<u>\$330,000</u>
Subtotal Contingencies:	\$506,000
Materials and Professional Fees:	\$346,000
District Labor/Inspection:	\$284,000
Total Budget:	\$4,006,846
Budget Category:	A1A02A

**Project Implementation:**

Project Advertisement: November 4, 2021

Bid Opening: December 2, 2021  
Project Award: December 14, 2021  
Estimated Completion Date: October 30, 2022  
Duration: 320 days

### **ENVIRONMENTAL REVIEW**

The Director of Engineering has determined that the Project is Categorical Exempt pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15302 (c), Replacement or Reconstruction. The Project qualifies for exemption pursuant to Section 15302(c) inasmuch as it is the replacement of existing water pipeline involving negligible or no expansion of capacity. The City of San Rafael has filed the Notice of Exemption as required under the executed Memorandum of Understanding between both parties (MA-5919 – See Attachment 3).

### **PUBLIC OUTREACH EFFORTS:**

District public information staff will be working closely with the City of San Rafael to develop messages regarding the project and the need to replace aging water infrastructure in coordination with the 3<sup>rd</sup> Street Rehabilitation Project.

### **FISCAL IMPACT**

The total cost to complete the 3<sup>rd</sup> Street Pipeline Replacement Project is estimated at \$4,006,846.

### **ATTACHMENT(S)**

1. Site Map
2. Draft Memorandum of Understanding between the City of San Rafael and MMWD

# 3rd Street Pipeline Replacement Project

Installation of 6,570 ft of  
pipe on 3rd Street



marinwater.org  
415-945-1455  
contactus@marinwater.org

**REIMBURSEMENT AGREEMENT BETWEEN  
THE CITY OF SAN RAFAEL AND MARIN MUNICIPAL WATER DISTRICT  
FOR CONTRACT AND CONSTRUCTION MANAGEMENT OF THE  
THIRD STREET REHABILITATION PROJECT**

THIS REIMBURSEMENT AGREEMENT (“AGREEMENT”) is made and entered into this \_\_\_\_ day of \_\_\_\_\_ 2021, by and between the CITY OF SAN RAFAEL, hereinafter referred to as “CITY”, and the MARIN MUNICIPAL WATER DISTRICT, hereinafter referred to as “MMWD”, both located in the State of California, collectively the “PARTIES”;

For good and valuable consideration, the PARTIES agree as follows:

**SECTION 1: RECITALS.**

- A. CITY plans to conduct corridor improvements along Third Street starting at Union Street and continuing to Second Street and along Second Street from Shaver Street to 4<sup>th</sup> Street, hereinafter the “ROADWAY PROJECT”,
- B. As part of the ROADWAY PROJECT the CITY will resurface the roadway along this identified portion of Third Street.
- C. MMWD plans to replace and/or repair water supply facilities within the identified portion of Third Street, hereinafter the “PIPELINE PROJECT”, in advance of the CITY’s final roadway resurfacing associated with the ROADWAY PROJECT.
- D. For their mutual benefit, the PARTIES agreed to a Memorandum of Understanding on February 26, 2021 (“MOU”), which combined the PIPELINE PROJECT with the ROADWAY PROJECT resulting in a “JOINT PROJECT”.
- E. The MOU provides that the CITY will manage the integration of design plans, Caltrans encroachment permit, and the bidding and the award of the JOINT PROJECT contract to the lowest responsive bidder, hereinafter referred to as “CONTRACTOR”.
- F. CITY and MMWD wish to enter into this AGREEMENT to clarify the allocation of costs associated with the construction, management, and administration of the PIPELINE PROJECT.

**SECTION 2: PROJECT COORDINATION**

- A. All notices and other communications required or permitted to be given under this AGREEMENT shall be in writing and given by personal delivery, or deposited with the United States Postal Service, postage prepaid, addressed to the parties named in this Section. Notice shall be deemed given as of the date of personal delivery, or if mailed, upon the date of deposit with the United States Postal Service.



To: MMWD  
Ben Horenstein  
General Manager  
Marin Municipal Water District  
220 Nellen Avenue  
Corte Madera, CA 94925

To: CITY  
Bill Guerin  
Public Works Director  
City of San Rafael  
111 Morphew Street  
San Rafael, CA 94901

- B.** MMWD. The General Manager shall be the representative of MMWD for all purposes under this AGREEMENT. Ben Horenstein is hereby designated as the Project Director for MMWD. MMWD's Project Director shall be responsible for all aspects of the progress and execution of this AGREEMENT on behalf of MMWD.
- C.** CITY. The Public Works Director shall be the representative of CITY for all purposes under this AGREEMENT. Bill Guerin, the Public Works Director, is hereby designated as the Project Director for CITY. CITY's Project Director shall be responsible for all aspects of the progress and execution of this AGREEMENT on behalf of CITY.
- D.** The Public Works Director is hereby declared to be the authorized CITY representative in administering this AGREEMENT. The MMWD General Manager is hereby declared to be the authorized MMWD representative in administering this AGREEMENT. Either Party may change its designated representative by providing written notice of the same to the other Party.

### **SECTION 3: SCOPE OF AGREEMENT**

- A.** The PARTIES acknowledge and agree that the sole purpose of this AGREEMENT is to set forth the PARTIES' responsibilities regarding the construction, management, inspection, and administration of the PIPELINE PROJECT portion of the JOINT PROJECT and to set forth the amount that MMWD will reimburse the City for its costs associated with the construction, management, and administration of the PIPELINE PROJECT.
- B.** The PARTIES agree that the services needed for the construction contracting, management, and administration of the PIPELINE PROJECT within the JOINT PROJECT include the tasks set forth below:
  - 1. Public Bidding of the Joint Project
  - 2. Construction management services of PIPELINE PROJECT;
  - 3. Payment to CONTRACTOR for PIPELINE PROJECT;
  - 4. Construction Inspection of PIPELINE PROJECT and Procurement of Pipeline Materials; and
  - 5. Material testing services for the PIPELINE PROJECT, including, but not limited to, trench subgrade and backfill compaction and asphalt testing.
- C.** The PARTIES agree and understand that as part of the JOINT PROJECT there are various best practices and mitigation measures that have associated costs, including, but not limited to, the preparation of a construction risk management plan and traffic management plan.

**SECTION 4: DUTIES OF CITY**

- A.** The CITY shall administer a public bid to construct the JOINT PROJECT with a separate bid item for the PIPELINE PROJECT, the plans and specifications for which are incorporated into CITY plans and specifications. Prior to including the PIPELINE PROJECT plans and specifications in the public bid, MMWD will review and provide any revisions to CITY for inclusion in the CITY plans and specifications. Prior to award and entering into a construction contract for the JOINT PROJECT, the CITY shall receive written authorization from MMWD of acceptance of the CONTRACTOR bid item or a portion of the CONTRACTOR'S bid item for the PIPELINE PROJECT.
- B.** The CITY shall provide construction management for the JOINT PROJECT. CITY shall require CONTRACTOR to provide the CITY with Payment and Performance bonds for the ROADWAY PROJECT, all in accordance with the terms and conditions of the CITY contract. The CITY shall also require CONTRACTOR to provide MMWD with Payment, Performance, and Maintenance bonds for the PIPELINE PROJECT, all in accordance with the terms and conditions of the CITY contract, which shall be mutually agreed upon by the PARTIES, with the CONTRACTOR.
- C.** CITY shall pay CONTRACTOR for the PIPELINE PROJECT in accordance with the unit bid prices and specifications approved by MMWD. No extra work on the PIPELINE PROJECT will be authorized by CITY or CONTRACTOR without prior written approval of MMWD. CONTRACTOR shall receive compensation for such MMWD approved extra work at the unit bid prices and in accordance with the specifications contained in the bid submitted by CONTRACTOR; insofar as such prices are applicable. Where existing contract bid items cannot be extended for payment of such MMWD approved extra work, a change order will be executed between CITY and CONTRACTOR only if such work and cost are authorized in advance by MMWD in writing. The request for approved extra work shall be sent to MMWD's Project Manager, Alex Anaya at [aanaya@marinwater.org](mailto:aanaya@marinwater.org).
- D.** CITY or its representative shall be responsible for communicating MMWD's decisions regarding PIPELINE PROJECT to CONTRACTOR and coordinating the execution and implementation of MMWD decisions with CONTRACTOR on the PIPELINE PROJECT.
- E.** CITY shall require CONTRACTOR to name MMWD as an additional insured on all insurance required to be obtained, including but not limited to CONTRACTOR general liability and automobile policies, and shall require that CONTRACTOR indemnify MMWD to the same extent as CITY under the JOINT PROJECT contract.
- F.** CITY shall be responsible for the Project Administration and Construction Management of the JOINT PROJECT and will contract with a construction management firm, referred to herein as CONSULTANT, to provide these services. These services shall include: general inspection (not including daily inspection by MMWD for PIPELINE work as set forth in section 5G below), progress payment preparation, change order preparation, schedule review, claims negotiation, meeting attendance, project reports, labor and wage compliance, utility coordination, project documentation, as-built plans (excluding redline as-builts of PIPELINE plan sheets prepared by MMWD inspectors), and overall project administration.

- G. CITY shall provide MMWD status updates and other Construction Management information needed to facilitate the construction of the PIPELINE PROJECT on a weekly or an “as needed” basis.
- H. CITY shall prepare and submit to MMWD invoices for CONTRACTOR costs associated with the PIPELINE PROJECT on a monthly basis.
- I. At the completion of the PIPELINE PROJECT, CITY shall prepare and submit invoice to MMWD for CONSULTANT costs associated with the construction management and administration of the PIPELINE PROJECT.

## **SECTION 5: DUTIES OF MMWD**

- A. MMWD shall reimburse CITY for the PIPELINE PROJECT construction costs in accordance with the unit bid prices and specifications authorized in writing by MMWD. MMWD shall also reimburse CITY for any extra or changed work authorized by advanced written notice from MMWD's Project Manager, Alex Anaya. MMWD shall review CITY progress payment estimates and provide CITY written notice approving or disapproving each progress payment estimate related to the PIPELINE PROJECT within 14 calendar days of MMWD receiving each progress payment estimate from CITY. MMWD will remit payment to CITY within 21 calendar days following its approval of a PIPELINE PROJECT progress payment.
- B. MMWD shall review CONTRACTOR change orders for extra work on the PIPELINE PROJECT and provide CITY a written notice of approval or disapproval of extra work within three (3) days of receiving each request. MMWD shall be responsible for CONTRACTOR claims arising from MMWD failure to timely approve or disapprove CONTRACTOR change orders for extra work.

MMWD shall be responsible for delays to the JOINT PROJECT which are a direct result of unavoidable delays in the work prosecution or completion of the PIPELINE PROJECT. Unavoidable delays in the work prosecution or completion shall mean all delays resulting from causes beyond the CONTRACTOR'S control which they could not reasonably have anticipated and mitigated or avoided by the exercise of care, prudence, foresight, and diligence and which actually and necessarily cause a delay in the completion of the whole work. Any delay which results from MMWD changes in the amount of work to be done, the quantity of material to be furnished, or the schedule of other forces working concurrently for MMWD, shall be the responsibility of MMWD. Any delay caused by MMWD's or another PIPELINE PROJECT-related utility's failure to provide for removal or relocation of existing main or trunkline utility facilities located on the construction site which are not identified with reasonable accuracy in the contract document, will be defined as right-of-way delays and will be paid for as outlined below. Right-of-way delays will be considered unavoidable, and the responsibility of MMWD, to the extent that they actually and necessarily delay the CONTRACTOR'S completion of the whole work on the PIPELINE PROJECT. Unavoidable delays do not include delays caused directly or indirectly by the default, delay, or other breach of the CONTRACTOR or any subcontractor of CONTRACTOR. Delays due to adverse

weather conditions will be regarded as unavoidable only to the extent that they actually and necessarily cause a delay in completion of the whole work and to the extent that such condition could not reasonably have been anticipated and mitigated or avoided by the exercise of care, prudence, foresight, and diligence of the CONTRACTOR.

- C. In order to bear all costs associated with and arising from construction management and administration of the PIPELINE PROJECT within the JOINT PROJECT, MMWD shall reimburse CITY for 16.8% of all construction management CONSULTANT costs associated with the JOINT PROJECT. CITY shall prepare and submit an invoice for CONSULTANT costs at the completion of the PIPELINE PROJECT, which shall be paid within 30 calendar days of receipt by MMWD.

Said reimbursement ratio of 16.8% was calculated based on the following estimate:

$$\frac{\$2,515,000 \text{ PIPELINE PROJECT IMPROVEMENTS}}{\$15,000,000 \text{ JOINT PROJECT IMPROVEMENTS}} = \underline{16.8\%}$$

MMWD shall reimburse CITY for CONSULTANT construction management and administration fees in the amount of \$196,275 at the completion of the PIPELINE PROJECT based upon the following calculation:

The CONSULTANT Construction Management fee is \$1,168,300 (excluding materials testing).

$$\underline{16.8\%} \times \$1,168,300 = \underline{\$196,275.}$$

- D. PARTIES agree to work cooperatively to renegotiate cost sharing of CONSULTANT fees for construction management and administration should there be a change in these fees or scope of the PIPELINE PROJECT.
- E. MMWD shall reimburse CITY for 16.8% of all costs associated with and arising from Water Pollution Control and the Project Schedule of the PIPELINE PROJECT within the JOINT PROJECT. CITY shall prepare and submit an invoice for these construction costs at the completion of the PIPELINE PROJECT, which shall be paid within 30 calendar days of receipt by MMWD.
- F. MMWD shall reimburse CITY for administration and trench cost savings from restoring the pavement using a straight trench versus the standard t-cut trench section described in the Marin County Uniform Construction Standards 2018 for the pipeline installed within the CITY'S ROADWAY PROJECT limit. MMWD and CITY have agreed on an amount of \$3.82 per square foot of trench within pavement restoration area, which is a total of \$159,570.95. CITY shall prepare and submit an invoice for this amount at the completion of the PIPELINE PROJECT, which shall be paid within 30 calendar days of receipt by MMWD. All surface restoration for other PIPELINE PROJECT work outside the ROADWAY PROJECT boundaries shall be restored per the Marin County Uniform Construction Standards 2018 upon installation of the pipeline and restoration of the roadway pavement.

- G. MMWD shall provide inspection services, at MMWD'S cost, for all construction of the PIPELINE PROJECT. MMWD shall review and approve all submittals required by the PIPELINE PROJECT specifications within 10 calendar days of receipt by MMWD.
- H. MMWD shall provide the water distribution system pipe materials for the PIPELINE PROJECT and materials testing services for the PIPELINE PROJECT, including, but not limited to materials testing of the trench subgrade, backfill, and asphalt compaction used for trench restoration, but excepting 14-steel casing and 8-inch fusible PVC pipe to be furnished by CONTRACTOR. Materials testing services shall be paid for by MMWD. MMWD shall provide all materials testing results to CONSULTANT within twenty-four (24) hours of receiving them. Water distribution system pipe backfill material including but not limited to, sand, class 2 aggregate base, control density fill and hot mix asphalt and 14-inch steel casing pipe and 8-inch fusible PVC pipe shall be furnished by the CONTRACTOR and shall be paid per the MMWD Bid Item price for said items.

## **SECTION 6: PARTNERING**

- A. The PARTIES agree to participate in the Formal Collaborative Partnering Process described below with the project CONTRACTOR.
- B. Formal Collaborative Partnering for this project will start within 30 days of the issuance of the Notice to Proceed to CONTRACTOR and will include the following:
  - a. CITY and CONTRACTOR will contract with an IPI Certified Independent Professional Neutral Partnering Facilitator;
  - b. A "Partnering Charter" containing the joint development of goals will be developed collaboratively between the CITY, MMWD, SRSD, and the CONTRACTOR;
  - c. A periodic, joint evaluation of the Partnering process;
  - d. Executive Level, Core Team, and Stakeholder Partnering;
  - e. A Partnering Follow-up Plan to resolve potential problems at the lowest possible level; and
  - f. A Training Plan for development of partnering skills.
- C. Participation in the formal partnering process will not void any portion of the contract. All rights and remedies set forth in the final contract will be preserved.

## **SECTION 7: MISCELLANEOUS TERMS**

- A. Term of AGREEMENT: This AGREEMENT shall terminate upon MMWD acceptance of the completed PIPELINE PROJECT, provided that MMWD reimbursement and CITY and MMWD indemnification duties shall continue following the end of such term.

- B. Termination:** This AGREEMENT may be terminated, without cause, by either Party, upon thirty (30) calendar days advance written notice to the other Party following CITY rejection of bids as provided herein, and may be terminated, with cause, by either Party, upon thirty (30) calendar days advance written notice to the other Party following the notified Party's failure to cure or correct the cause of termination notice, within thirty (30) calendar days receipt of that notice.
- C. Amendment and Merger:** This AGREEMENT contains all the terms and conditions made between the PARTIES to this AGREEMENT and may only be modified by written AGREEMENT signed by all the PARTIES to this AGREEMENT or their respective successors-in-interest. This writing is intended both as a final expression of the AGREEMENT between the parties hereto with respect to the included terms and as a complete and exclusive statement of the terms of this AGREEMENT. No modification of this AGREEMENT shall be effective unless and until such modification is evidenced by a writing signed by both PARTIES.
- D. Agreement Binding:** The terms and provisions of this AGREEMENT shall extend to and be binding upon and inure to the benefit of the heirs, executors, and administrators or to any approved successor, as well as to any assignee or legal successor to any PARTIES to this AGREEMENT. Any terms of this AGREEMENT that by their nature extend beyond the term (or termination) of this AGREEMENT shall remain in effect until fulfilled and shall apply to both PARTIES' respective successors and assigns.
- E. Cooperation:** The PARTIES pledge cooperation during the term of this AGREEMENT.
- F. No Third-Party Beneficiaries:** Nothing contained in this AGREEMENT shall be construed to create, and the PARTIES do not intend to create, any rights in third parties.
- G. Severability:** If any term, covenant or condition of this AGREEMENT or the application thereof to any person or circumstance is determined to be invalid or unenforceable, the remainder of this AGREEMENT or the application of such term, covenants or conditions to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each term, covenant and condition of this AGREEMENT shall be valid and be enforced to the fullest extent permitted by law.
- H. No Waiver:** The waiver by either of the PARTIES of any default under this AGREEMENT shall not operate as a waiver of any subsequent breach of the same or any other provision of this AGREEMENT.
- I. Time is of the Essence:** Time is of the essence with respect to the performance of every provision of this AGREEMENT for which time or performance is a factor. PARTIES agree to adhere to all deadlines stated in the approved project specifications.
- J. Mediation:** Any dispute or claim in law or equity between the County and MMWD arising out of this AGREEMENT, if not resolved by informal negotiation between the PARTIES, shall be mediated. The mediation process shall continue until the case is resolved or until such time as the mediator makes a finding that there is no possibility of

resolution. If mediation is unsuccessful, the PARTIES may avail themselves of any other remedies.

**K. Applicable Law:** This AGREEMENT shall be construed and enforced in accordance with the laws of the State of California.

**L. No Presumption Regarding Drafter:** The PARTIES acknowledge and agree that the terms and provisions of this AGREEMENT have been negotiated and discussed between the PARTIES and their attorneys, and this AGREEMENT reflects their mutual AGREEMENT regarding the same. Because of the nature of the negotiations, and discussions it would be inappropriate to deem any Party to be the drafter of this AGREEMENT. Therefore, no presumption for or against validity, or as to any interpretation hereof, based upon the identity of the drafter, shall be applicable in interpreting or enforcing this AGREEMENT.

**M. Assistance of Counsel:** Each Party to this AGREEMENT warrants as follows:

- a. That each Party had the assistance of counsel in the negotiation for, and the execution of, this AGREEMENT and all related documents; and
- b. That each Party has lawfully authorized the execution of this AGREEMENT.

**N. Section Headings:** The section headings contained in this AGREEMENT are for convenience and identification only and shall not be deemed to limit or define the contents of the sections to which they relate.

**O. Counterparts and Electronic Signatures:** This AGREEMENT may be executed by electronic signature and in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one document. Counterpart signature pages may be delivered by telecopier, email or other means of electronic transmission.

IN WITNESS WHEREOF, the PARTIES hereto have executed this AGREEMENT by their duly authorized officers as of the day and year first above written.

CITY OF SAN RAFAEL

MARIN MUNICIPAL WATER DISTRICT

\_\_\_\_\_  
Jim Schutz, City Manager

\_\_\_\_\_  
Board President

ATTEST:

ATTEST:

By: \_\_\_\_\_  
Lindsay Lara, City Clerk

By: \_\_\_\_\_  
Board Secretary

APPROVED AS TO FORM:

By: \_\_\_\_\_  
Robert Epstein, City Attorney

APPROVED AS TO FORM:

By: \_\_\_\_\_  
General Counsel





**Item Number:** 05  
**Meeting Date:** 10-26-2021  
**Meeting:** Operations  
Committee/Board of Directors  
(Operations)

## Informational Item

---

**TO:** Operations Committee/Board of Directors (Operations)

**FROM:** Crystal Yezman, Director of Engineering *CY*

**THROUGH:** Ben Horenstein, General Manager *BH*

**DIVISION NAME:** Engineering

**ITEM:** Recycled Water Pipeline Feasibility

---

### SUMMARY

District staff will provide and update on the feasibility of including recycled water pipelines along with the Districts Capital Improvement Program (CIP) pipeline replacement projects.

### DISCUSSION

Currently, District staff evaluate whether or not the installation of a recycled water pipeline concurrently with a potable water pipeline on a project by project basis. The process starts when a given Capital Improvement Project (CIP) is initiated that involves the replacement of a potable water transmission or distribution pipeline. During the design phase, the Engineering Manager of Design works with the design engineering staff to identify the proximity of the project to existing or future recycled water infrastructure. If there is no existing recycled water pipelines or proposed recycled water pipeline near the project site, then the design process continues without the inclusion of recycled pipeline within the identified project. See attachment A for a map showing future recycled water development areas identified in past planning reports. Estimated capital costs for future recycled water development includes the following projects:

## Proposed Recycled Water Distribution Projects\*

Phase	Description of Area	Demand (AF/yr)	Pipe Length	Project Cost
1	Dominican to SR High School	33.5	15,870	\$4,417,500
2	Central SR Hwy 101 to Mt Tam Cemetery	10.4	19,070	\$5,614,000
3	Albert Park Area	34	8,930	\$2,452,500
4	Mt. Tam Cemetery	18	6,600	\$1,650,000
5	Redhill Area	10.6	3,150	\$787,000
6	Sir Francis Drake HS	9.8	3,000	\$750,000
7	San Pedro Rd	8.9	13,490	\$3,937,500
8	Peacock Gap Area	166.1	33,240	\$20,000,000
9	Canal Area	37.9	9,600	\$2,400,000
10	Kerner Blvd Area	16.6	13,700	\$3,680,000
11	Anderson Dr Area	8.4	9,090	\$2,547,000
12	San Quentin	111.8	4,200	\$1,260,000
13	Larkspur Landing Area	36.4	7,090	\$2,112,000
14	The Village Area	24.3	8,530	\$2,326,500
15	Corte Madera Town Center Area	28.6	3,600	\$900,000
16	Redwood High School / Piper Park	96.4	10,860	\$2,752,500
17	Bon Air Area	51.2	7,800	\$1,950,000
18	Marin General Area	113.2	17,940	\$4,485,000
19	College of Marin Area	35.6	6,510	\$1,627,500
20	Downtown Corte Madera	56.9	2,400	\$600,000
21	Paradise Dr Area	39	12,930	\$3,232,500
	New Treatment Plant			\$20,000,000
			<b>TOTAL COST</b>	<b>\$89,481,500</b>

\*Projects identified from the 2014 Sewerage Agency of Marin / Marin Municipal Water District Recycled Water Feasibility Study, the 2016 Central Marin Sanitation Agency and Marin Municipal Water District Recycled Water Feasibility Study, and the 2007 Feasibility Update for projects within the District's existing recycled water distribution area

The relative cost per acre-ft of potable water supply offset with recycled water has been calculated as follows:

Option	Capital Cost	O&M Cost <sup>1</sup>	Annual Cost of Capital <sup>2</sup>	Water Offset (AF/yr)	Cost/AF
Phases 1-10	\$45,689,000	\$380,255	\$2,484,171	346	\$8,286
Phases 11-21	\$43,793,000	\$661,862	\$2,381,083	602	\$5,057
<b>Total</b>	<b>\$89,482,000</b>	<b>\$1,042,117</b>	<b>\$4,865,255</b>	<b>948</b>	<b>\$6,231</b>

1 – Costs of O&M is \$1,100/AF

2 – Interest rate of 3.5% over 30 years

If a drinking water pipeline replacement project is identified within 500 feet of an existing or proposed recycled water pipeline, then that would trigger further discussion with the Director

of Engineering and the respective waste water treatment agency that would provide recycled water supply. Given that installing a recycled water pipeline alongside a potable water pipeline project is found proximal, then there would be additional design, cost and standards that would need to be considered to determine feasibility. First, the installation of a recycled water pipeline cannot be installed within the same trench as a potable water pipeline as identified in Title 22, Chapter 16, Article 4, Section 64572 Water Main Separation of the California Water Board Regulations Related to Drinking Water. Current code requires a minimum of 10 feet of horizontal separation for disinfected secondary recycled water and a minimum of 4 feet of horizontal separation for disinfected tertiary recycled water. This would require the installation of a separate pipeline in a separate trench which is estimated to increase the total project cost by approximately 60%.

Second, it is also necessary to consider the additional complexity of installing recycled water pipeline while reducing the impact to traffic and the public. During the design process, the engineer designs the new pipeline off to the opposite side of the road of the existing water main being replaced and as close to the edge of the road to minimize the impact to traffic. Including a new recycled water pipeline with the project would require a second trench either 4 feet or 10 feet away from the new pipeline landing the trench more towards the center of the road, which can still be done but with more impact to traffic and the public.

An option to consider would be to install the new potable water main first and transfer all the services to the new main. Once that has been done the old main, on the opposite side of the road can be abandoned and the new recycled water main could be installed in the abandoned mains alignment. This would require excavating and removing the old abandoned pipe, but it would provide the greatest amount of separation between the two lines and help keep trenching excavation activities off to the side of the road helping minimizing the impact to traffic and the public.

The third issue that also needs to be considered is the risk of installing a recycled water line that is going to be left unused and unpressurized in the roadway. The risk would be that another utility or contractor could damage the pipe and not repair it. To address this risk there are a couple of prevention measures that could be applied. First, temporarily tie in the recycled main to the potable main to help increase flows of potable water main. Once the recycled main is to be used for recycled water it could be disconnected and switched over to the recycled water line. A second option would be leaving the recycled water line empty and then conducting a camera inspection of the inside of the pipe prior to putting the recycled line into service. This would help identify any damage done to the pipe that was not reported to the District and allow for a repair to be done prior to putting it in service.

Recently, the District designed and installed approximately 800 feet of recycled water main on Armory Drive across from the Civic Center to provide recycled water to residents to help minimize consumption of potable water during the current drought. This installation was

immediately beneficial to the community. Considering near future use should also be a consideration when evaluating the expansion of the recycled water pipeline system.

The District also continues to support efforts to expand recycled water through participation in the North Bay Water Reuse Authority, and staff continues to monitor trends in the industry for the development of indirect potable reuse and direct potable reuse. It should be noted that direct potable reuse has yet to be approved by the State of California as an acceptable water supply, with regulations anticipated to allow such use by 2023.

**FISCAL IMPACT**




District staff estimates that including recycled water pipelines with our CIP projects would increase the total project cost by approximately 60% based on actual bid prices of recent pipeline projects having pipeline diameters of less than 12-inches.

**ATTACHMENT(S)**

1. Recycled Water Expansion Areas

### Recycled Water System - Existing and Proposed



	Existing System
	Phase 1-10
	Phase 11-21

