



NOTICE OF THE PLANNING COMMITTEE/SPECIAL MEETING OF THE BOARD OF DIRECTORS

Tuesday, March 25, 2025 at 9:30 AM

AGENDA

LOCATIONS:

Open Session to start at or after 9:30 a.m.

Marin Water Board Room – 220 Nellen Avenue, Corte Madera, CA 94925
Outside location for Director Jed Smith – 227 Summit Ave., Brookline, MA 02446

Public Participation:

The public may attend this meeting in-person or remotely using the following methods:

On a computer or smart device, go to: <https://marinwater.zoom.us/j/86822995553>

By phone, dial: **1-669-444-9171** and use Webinar ID: **868 2299 5553**

HOW TO PROVIDE PUBLIC COMMENT:

During the Meeting: Typically, you will have 3 minutes to make your public comment, however, the board president may shorten the amount of time for public comment due to a large number of attendees. Furthermore, pursuant to Government Code, section 54954.2 (the Brown Act), the Board may not take action or discuss any item that does not appear on the agenda.

-- **In-Person Attendee:** Fill out a speaker card and provide to the board secretary. List the number/letter (ex: 6a) of the agenda item(s), for which you would like to provide a comment. Once you're called, proceed to the lectern to make your comment.

-- **Remote Attendee:** Use the "raise hand" button on the bottom of the Zoom screen. If you are joining by phone and would like to comment, press *9. The board secretary will use the last four digits of your phone number to call on you (dial *6 to mute/unmute).

In Advance of the Meeting: Submit your comments by email in advance of the meeting to boardcomment@marinwater.org. To ensure that your comment is provided to the Board of Directors prior to the meeting, please email your comment 24 hours in advance of the meeting start time. Comments received after this cut off time will be sent to the Board after the meeting. Please do not include personal information in your comment such as phone numbers and home addresses.

AGENDA ITEMS:

1. **Call to Order and Roll Call**
2. **Adoption of Agenda**
3. **Public Comment on Non-Agenda Matters**

This is the time when any person may address the Board of Directors on matters not listed on this agenda, but which are within the subject matter jurisdiction of the Board.

4. **Regular Items** (9:35 a.m. – Time Approximate)

- a. Minutes of the Planning Committee Meeting/Special Meeting of the Board of Directors on February 13, 2025

RECOMMENDATION: Approve the minutes

- b. Water Efficiency Update – Advanced Metering Infrastructure (AMI)

RECOMMENDATION: Review and comment on Water Efficiency Update - Advanced Metering Infrastructure (AMI)

- c. Water Quality Program Update

RECOMMENDATION: Review and comment on the update regarding the District’s water quality program

- d. Fire Flow Improvement Program – Glenwood Transmission Pipeline Replacement Project (F22002)

RECOMMENDATION: Review and comment on the Fire Flow Improvement Program – Glenwood Transmission Pipeline Replacement Project

- e. San Geronimo Treatment Plant Clearwell Structural Evaluation and Condition Assessment

RECOMMENDATION: Review and comment on proposed contract award for San Geronimo Treatment Plant Clearwell Structural Evaluation & Condition Assessment project

5. **Upcoming Meeting**

The next Planning Committee Meeting/Special Meeting of the Board of Directors is scheduled on April 22, 2025 at 9:30 a.m.

6. **Adjournment** (11:00 a.m. – Time Approximate)

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 an individual 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 the Board Secretary/ADA Coordinator at 415.945.1448, at least two business days in advance of the meeting. Advance notification will enable Marin Water to make reasonable arrangements to ensure accessibility.

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Posted: 03-21-2025



STAFF REPORT

Meeting Type: Planning Committee/Board of Directors
Title: Minutes of the Planning Committee Meeting/Special Meeting of the Board of Directors on February 13, 2025
From: Terrie Gillen, Board Secretary
Through: Ben Horenstein, General Manager
Meeting Date: March 25, 2025

TYPE OF ITEM: X Approve Review and Comment

RECOMMENDATION: Approve the minutes

SUMMARY: The Planning Committee/Board of Directors held a meeting on February 13, 2025. Staff is requesting that the minutes be approved.

DISCUSSION: None.

ENVIRONMENTAL REVIEW: Not applicable.

FISCAL IMPACT: None.

ATTACHMENT(S):

- Draft February 13, 2025 Minutes of the Operations Committee Meeting/Special Meeting of the Board of Directors

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



NOTICE OF THE PLANNING COMMITTEE/SPECIAL MEETING OF THE BOARD OF DIRECTORS

Thursday, February 13, 2025 at 9:30 AM

MINUTES

LOCATIONS:

Open Session to start at or after 9:30 a.m.

Marin Water Board Room – 220 Nellen Avenue, Corte Madera, CA 94925

Public Participation:

The public attended this meeting in-person or remotely using the following methods: on a computer or smart device, <https://marinwater.zoom.us/j/86822995553> or by phone, 1-669-444-9171 using Webinar ID #: 868 2299 5553.

AGENDA ITEMS:

1. Call to Order and Roll Call

Chair Larry Russell called the meeting to order at 9:30 a.m.

DIRECTORS PRESENT

Diana Maier

Jed Smith

Ranjiv Khush

Larry Russell

DIRECTOR ABSENT

Matt Samson

2. Adoption of Agenda

Director Smith made the motion to adopt the agenda. Vice Chair Khush seconded the motion.

There were no public comments.

Voting Yea: Directors Maier, Smith, Khush, and Russell

3. Public Comment on Non-Agenda Matters

There was one (1) public comment.

4. Regular Items

- a. Minutes of the Operations Committee Meeting/Special Meeting of the Board of Directors on January 17, 2025

RECOMMENDATION: Approve the minutes

Director Smith made the motion to adopt the minutes. Vice Chair Khush seconded the motion.

There were no public comments.

Voting Yea: Directors Maier, Smith, Khush, and Russell

- b. San Geronimo Treatment Plant Roof Replacement Project (D21034)

RECOMMENDATION: Review and refer to a future regularly scheduled Board meeting for contract award for the San Geronimo Treatment Plant Roof Replacement Project

Assistant Design Engineer Hagar Negash presented this item.

Discussion followed.

There were no public comments.

Vice Chair Khush made the motion to refer this item to the Board to consider for approval at a future meeting. Director Smith seconded the motion.

- c. Alpine Barge Anchor and Pipe Float Replacement Project (D24010)

RECOMMENDATION: Review and refer to a future regularly scheduled Board meeting for contract award for the Alpine Barge Anchor and Pipe Float Replacement Project

Assistant Design Engineer Ava Pridgeon provided a presentation.

Discussion ensued.

There were no public comments.

Vice Chair Khush made the motion to refer this item to the Board to consider for approval at a future meeting. Director Smith seconded the motion.

d. Nicasio Spillway Modification Project Update

RECOMMENDATION: Receive a staff presentation on the District’s efforts to advance the Nicasio Spillway Modification Project

Engineering Planning Manager Elysha Irish and Fisheries Program Manager Jonathan Koehler presented this item.

Discussion occurred during and after the presentation.

There was one (1) public comment.

This was an information item. No formal action was taken.

e. Pine Mountain Tanks Phase 2 Project (D21043)

RECOMMENDATION: Review and refer to a future regularly scheduled Board meeting for contract award for the Pine Mountain Tanks Phase 2 Project and award of a separate professional services contract for construction management services in support of the Pine Mountain Tanks Phase 2 Project

Engineering Director Alex Anaya presented this item.

Discussion ensued.

There were no public comments.

Director Maier made the motion to refer this item to the Board to be considered for approval at a future meeting. Director Smith seconded the motion.

f. Update on Near Term Drought Contingency Actions

RECOMMENDATION: Receive an update on near term drought actions available to the District

Water Resources Director Paul Sellier and Water Quality Manager Lucy Croy presented this item.

Discussion occurred throughout the presentation.

There were two (2) public comments.

This was an information item. No formal action was taken.

5. Upcoming Meeting

Chair Russell announced that the next Planning Committee Meeting/Special Meeting of the Board of Directors would take place on Tuesday, March 25 at 9:30 a.m.

6. Adjournment

There being no further business, the Planning Committee Meeting/Special Meeting of the Board of Directors adjourned on February 13, 2025 at 11:06 a.m.

Board Secretary



STAFF REPORT

Meeting Type: Planning Committee/Board of Directors
Title: Water Efficiency Update – Advanced Metering Infrastructure (AMI)
From: Paul Sellier, Director of Water Resources
Through: Ben Horenstein, General Manager
Meeting Date: March 25, 2025

TYPE OF ITEM: Approve X Review and Comment

RECOMMENDATION: Review and comment on Water Efficiency Update - Advanced Metering Infrastructure (AMI)

SUMMARY: Staff will review the role of Advanced Metering Infrastructure (AMI) in Water Efficiency, and provide an update on AMI pilots, project schedule and next steps.

DISCUSSION: AMI is anticipated to play a fundamental role in changing customers’ understanding of how they use water leading to improved water efficiency by enabling the District’s customers to directly monitor and manage water use. The cornerstone of any AMI system is the customer portal, the online user interface that allows customers to review and understand their patterns of water use. A 2022 American Water Works Association (AWWA) report found that signing up for an AMI portal led to an average decrease in daily water use ranging from 6-12%, with the range accounting for the different types of functionality (e.g. custom alerts and single sign-on) and deployment (automatic opt-in). The same AWWA report showed that sign-ups typically range between 30-45% and this aligns with the District’s experience with the 5,500-unit Badger AMI pilot that has seen a 46% customer adoption of the customer portal, “EyeOnWater”.

Water savings based on District data comparing selected accounts water usage before AMI and after AMI installation suggests that water use savings may vary across all District services. For example, when comparing the water use of all single-family services to a sub-group of 3,759 services that were upgraded to AMI during 2019-2022, the AMI services showed savings of 3.39%. However, a separate analysis compared two separate meter reading routes that border each other (453 total meters). One of the routes was upgraded to AMI in 2020 and the other was not. The AMI route experienced a 7.25% reduction in use, when evaluating 2017 use with 2023 use, compared to the route that was not upgraded. The data suggests that while water savings resulting from AMI will occur, it is difficult to quantify the savings.

One of the ways AMI can save water is through identification of leaks. Standard AMI such as the Badger pilot can send alerts for continuous meter movement to the customer and District indicating a potential leak on the customer side of the meter. Recent developments in AMI can also reduce water loss by monitoring for leaks on the District side of the meter through acoustic leak detection (ALD). ALD is typically provided as an add-on to the meter and because there are a large number of water meters, this provides a robust network of sensors that are able to identify distribution system leaks, as well as customer leaks, by detecting the sound that is made by a leak.

Pilots and equipment/portal testing:

As part of the AMI planning process and in conjunction with the recommendations from the Water Loss Report, staff are conducting small scale pilot studies deploying meter equipment and testing portals to learn as much as possible about AMI vendors and the features, beyond metering of water, that they provide. Ultimately, the information developed will be useful in developing and evaluating the request for proposals (RFP) for full-scale implementation of AMI. Staff will present information on the District AMI pilots summarized below.

Kamstrup Pilot: Kamstrup meters are provided with integrated leak detection and were installed in two different pilot areas to test the leak detection functionality. Since the pilot began, several leaks have been identified by the Kamstrup meters, two of which were leaks on the tap at the main and one that was a meter gasket leak on the District side of the meter.

Subeca Pilot: Another AMI pilot currently underway involves 100 Subeca registers that were fully funded by an Imagine H2O grant. Distinct from other vendors that use more traditional communication methods, Subeca uses Amazon Sidewalk to communicate hourly reads down to .01 cubic-feet. Amazon sidewalk uses devices such as Amazon Echo and Ring doorbells as a “bridge” to the cloud. Although Subeca is relatively new to the AMI space, the unique communication method could be leveraged in areas of the District where traditional methods like cellular or radio collectors are not reliable for AMI. Based on recent studies from several leading AMI vendors, approximately 2-5% of meter locations are not ideal for cellular or radio AMI, and Subeca could provide a solution. Since deployment of the Subeca registers, staff have seen 95% successful reads which is a relatively high considering that many of the registers are located in areas that would be very challenging for cellular or radio AMI functionality.

Badger Pilot: The largest AMI pilot underway uses Badger cellular endpoints. This pilot started in 2018 and leveraged grant funding from the Department of Water Resources (DWR) and Integrated Regional Water Management Plan (IRWMP) to install over 5,500 cellular endpoints on replaced or retrofitted meters, which has provided the District with years of experience in working with AMI and data on water savings through early leak detection. Since 2018, over 8,000 leak and high water use letters have been sent out, and over 1,300 leaks received additional follow-up efforts from District staff, such as an email, phone call or site visit. Estimated water savings from these various forms of leak notification is over 200 acre feet (AF) per year. All of our Badger pilot customers are eligible to sign up for a customer-facing portal (EyeOnWater) with automated leak alerts and 46% of them have created an account.

Project Status, Schedule & Next Steps:

The AMI project team is comprised of internal stakeholders with the experience and expertise to help integrate this project with the District’s ongoing operations. Staff is developing a RFP, targeted for

release in July of 2025, and full deployment of AMI potentially by end of 2030, with the first phase of AMI units scheduled for installation in late summer 2026.

ENVIRONMENTAL REVIEW: Not Applicable.

FISCAL IMPACT: None

ATTACHMENT(S): None



STAFF REPORT

Meeting Type: Planning Committee/Board of Directors
Title: Water Quality Program Update
From: Paul Sellier, Water Resources Director
Through: Ben Horenstein, General Manager
Meeting Date: March 25, 2025

PS
BH

TYPE OF ITEM: Approve X Review and Comment

RECOMMENDATION: Review and comment on the update regarding the District’s water quality program

SUMMARY: The District maintains a comprehensive water quality program to ensure our drinking water is of the highest quality, safe, and reliable while exceeding state and federal regulatory standards. Staff will provide an overview of the District’s water quality program.

DISCUSSION: The District’s comprehensive water quality program is designed to ensure that water delivered to customers is high quality and safe to drink. The program is based on a multi-step approach encompassing extensive monitoring from source to faucet. Staff will provide an overview of the program and discussion of upcoming and potential regulatory changes.

ENVIRONMENTAL REVIEW: Not applicable.

FISCAL IMPACT: None.

ATTACHMENT(S): None.



STAFF REPORT

Meeting Type: Planning Committee/Board of Directors
Title: Fire Flow Improvement Program – Glenwood Transmission Pipeline Replacement Project (F22002)
From: Alex Anaya, Director of Engineering
Through: Ben Horenstein, General Manager
Meeting Date: March 25, 2025

TYPE OF ITEM: Approve X Review and Comment

RECOMMENDATION: Review and comment on the Fire Flow Improvement Program – Glenwood Transmission Pipeline Replacement Project

SUMMARY: The Fire Flow Improvement Program – Glenwood Transmission Pipeline Replacement Project will install approximately 6,470 feet of new pipe in the City of San Rafael. On April 8, 2025, the District will open construction bids for the Project. District staff will make a recommendation for consideration of contract award at a future regularly scheduled Board meeting.

DISCUSSION: The Glenwood Transmission Pipeline Replacement Project is a component of the District’s Fire Flow Improvement Program. This Project will install approximately 6,470 feet of new 18”, 16”, 12”, 8”, 6”, and 4” welded steel pipe to replace the old, leak-prone, fire flow deficient piping installed as early as 1928.

The project will take place in the locations described in Table 1 and shown on the map provided in Attachment 1.

Table 1

STREET	LENGTH	INSTALLATION DATE	EXISTING SIZE & TYPE
Lochinvar Road	2107 ft	1954	10” CIP
Manderly Road	97 ft	1954	6” CIP, 8” CIP
Dunfries Terrace	99 ft	1954	8” CIP
Kinross Drive	69 ft	1954	6” CIP
Locksly Lane	115 ft	1996	6” PVC
Bonnie Banks Way	133 ft	1973, 1961	8” ACP, 16” WSP
Allensby Lane	58 ft	1958	6” CIP
Point San Pedro Road	92 ft	1928	8” CIP

Castlewood Drive	1196 ft	1957, 1966	16" CIP, 8" CIP
Cottonwood Drive	132 ft	1964	6" ACP
Knight Drive	1892 ft	1956, 1964	16" CIP, 6" ACP
Ashwood Court	176 ft	1956	4" CIP
Teakwood Court	227 ft	1956	4" CIP
Fernwood Way	28 ft	1956	6" CIP
Dellwood Court	49 ft	1956	6" CIP

*ACP = Asbestos Cement Pipe, **CIP = Cast Iron Pipe

These street segments were evaluated for the installation of recycled water piping. The nearest existing recycled water pipeline is approximately 4.8 miles away located at the intersection of San Pablo Avenue and Laurel Glen Terrace. The closest waste water treatment plant, Central Marin Sanitation Agency, is located approximately 4.5 miles away in San Rafael. However, their facilities are not equipped to provide tertiary recycled water. Therefore, it was determined that recycled water piping was infeasible for inclusion in this Project.

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

Budget:

Engineer’s Estimate:	\$ 3,740,000
Contingency (10%):	\$ 374,000
Materials and Professional Fees:	\$ 648,000
District Labor/Inspection:	\$ 200,000
Total Budget:	\$ 4,962,000
Budget Category:	A2A

Estimated Project Implementation:

Project Advertisement:	March 25, 2025
Bid Opening:	April 8, 2025
Project Award:	May 6, 2025
Estimated Completion Date:	January 2, 2026
Duration:	241 days

District staff intend to make a recommendation for consideration of contract award for this item at a future regularly scheduled Board meeting.

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.

FISCAL IMPACT: The total cost to complete the Fire Flow Improvement Program – Glenwood Transmission Pipeline Replacement Project is estimated at \$4,962,000, inclusive of District Labor, materials and contingencies. This project was partially funded by the Adopted 2 Year Capital

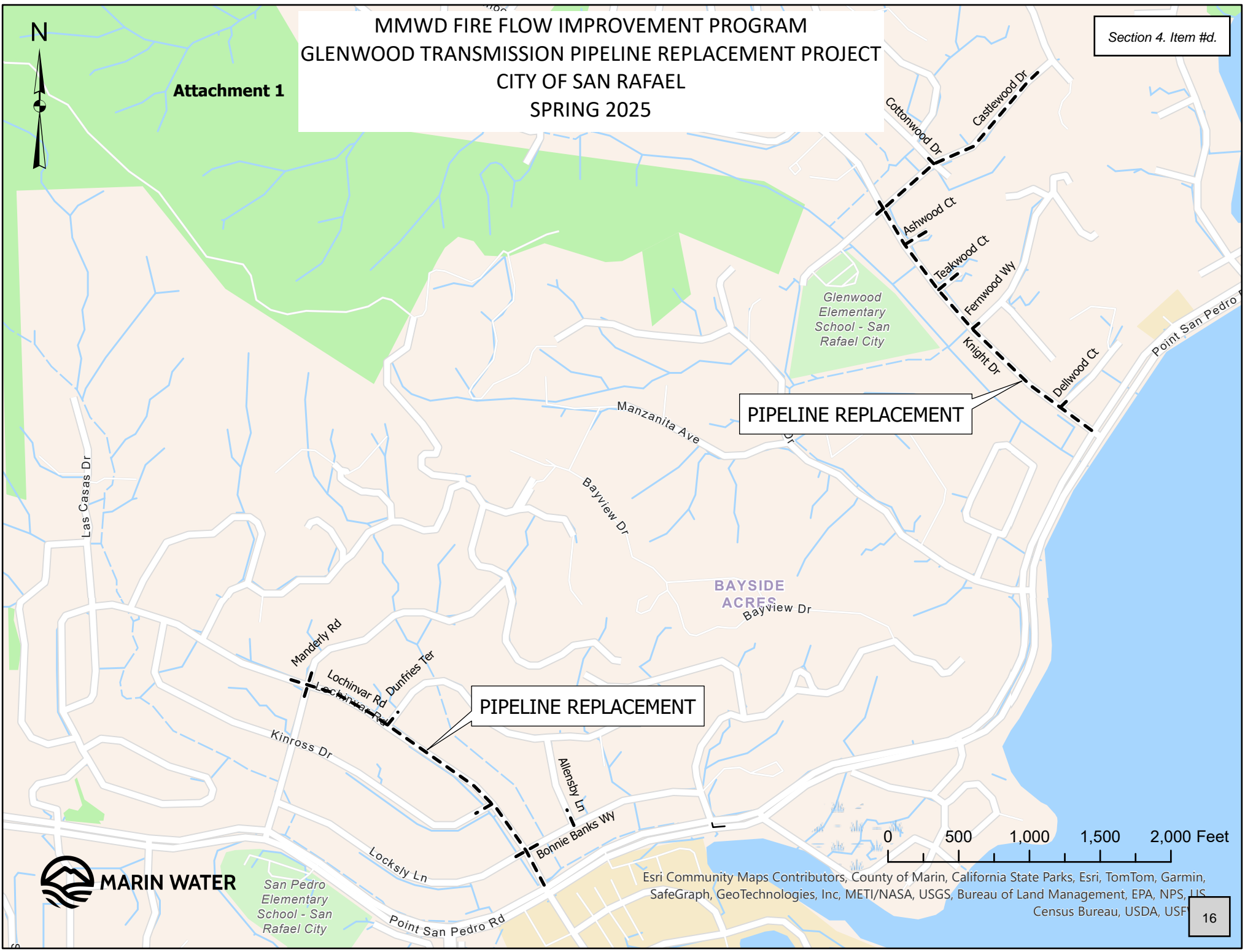
Improvement Budget (FY 2023-25). Sufficient prior year fund balance is available in the Fire Flow Improvement Fund to support the full project cost. The Board's approval for this project will appropriate \$3,762,000 in prior year Fire Flow fund balance for this project.

ATTACHMENT(S):

1. Site Map

MMWD FIRE FLOW IMPROVEMENT PROGRAM GLENWOOD TRANSMISSION PIPELINE REPLACEMENT PROJECT CITY OF SAN RAFAEL SPRING 2025

Attachment 1



PIPELINE REPLACEMENT

PIPELINE REPLACEMENT



Esri Community Maps Contributors, County of Marin, California State Parks, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USF



STAFF REPORT

Meeting Type: Planning Committee/Board of Directors
Title: San Geronimo Treatment Plant Clearwell Structural Evaluation and Condition Assessment
From: Alex Anaya, Director of Engineering
Through: Ben Horenstein, General Manager *AA BH*
Meeting Date: March 25, 2025

TYPE OF ITEM: Approve X Review and Comment

RECOMMENDATION: Review and comment on proposed contract award for San Geronimo Treatment Plant Clearwell Structural Evaluation & Condition Assessment project

SUMMARY: The District is in the early stages of the San Geronimo Treatment Plant (SGTP) clearwell structural evaluation and condition assessment project which aligns with the Five-Year Strategic Plan to improve the resilience of Marin Water’s infrastructure and reduce the District’s carbon footprint. The SGTP is the District’s largest energy consuming facility, accounting for roughly 25% of the District’s annual electricity demands. This evaluation will provide a seismic structural evaluation and feasibility analysis of installing solar panels on top of the existing SGTP clearwells, thereby reducing the energy demand at SGTP by up to 10%.

DISCUSSION: This District is in the early stages of the San Geronimo Treatment Plant (SGTP) Clearwell structural evaluation and condition assessment project which aligns with the Five-Year Strategic Plan to improve the resilience of Marin Water’s infrastructure and reduce the District’s carbon footprint.

The SGTP is the District’s largest energy consuming facility, accounting for roughly 25% of the District’s annual electricity demands. The District’s renewable energy analysis identified an action to further investigate the feasibility of installing solar panels on top of the existing clearwells in order to reduce the SGTP annual electrical demands. If solar panels were installed on top of the two clearwells, the District is estimated to reduce its PG&E demand at the plant by approximately 10%, equating to an annual savings of roughly \$100,000.

The SGTP has two circular partially buried concrete clearwells. Clearwell No. 1 was constructed in 1962 when the treatment plant was first commissioned, and Clearwell No. 2 was constructed in 1995. Clearwell No. 2 is critical to the District’s treatment process due to its outer ring configuration whereby the production of chloramines is achieved to satisfy surface water treatment regulation requirements.

Chlorinated water from Clearwell No. 2 enters Clearwell No. 1 and is then pumped through the North Marin Line into Smith Saddle Tanks and into the distribution system.

In 2024, Potable Divers Inc. entered the clearwells to perform routine inspections and tank cleaning. During these inspections, divers found evidence of standing water from the clearwell roofs infiltrating through cracks, and areas of spalled concrete, some of which was located around the perimeter of the roof and shell connection of Clearwell No. 1. Potable Divers Inc. recommended the District conduct additional structural assessment by a structural engineering firm to evaluate the extent of the damage and develop a repair plan and design.

Staff issued a request for proposals (RFP) to solicit proposals from structural engineering firms to perform a seismic structural evaluation, provide recommendations for repairs for items identified, and to perform a structural feasibility analysis for the installation of solar panels on top of the existing clearwells. Staff reached out to eight consulting firms, and on January 25th conducted a site visit at the treatment plant to discuss the project and answer any questions. All eight consulting firms were present for the site visit. Staff performed a thorough interview and shortlist process which ultimately led to the preferred selection of TJC and Associates, Inc. (TJCAA) to perform the work.

TJCAA is a local firm specializing in structural analysis and condition assessments of concrete water storage structures. TJCAA's related work experience, project management approach, budget and schedule were the leading factors which scored their proposal above the other engineering consultant firms. This contract will allow the District to consult with subject matter experts in structural evaluations and condition assessments to determine useful remaining service life of the clearwells, perform seismic structural evaluations, receive engineered repair details, and determine any structural improvements necessary to install solar panels on top of the existing clearwells.

Staff recommend the Board review and comment on this item, which will be brought to a future regularly scheduled Board meeting for consideration of approval and contract award.

ENVIRONMENTAL REVIEW: Not Applicable.

FISCAL IMPACT: Funding for this contract is identified in the adopted budget for Fiscal Year 2025 and 2026 under the A1A04 Treatment Plant fund center

ATTACHMENT(S): None.