NOTICE OF THE BOARD OF DIRECTORS' REGULAR BI-MONTHLY MEETING

Tuesday, February 25, 2025 at 5:30 PM

AGENDA

LOCATIONS:

Open Session to start at or after 6:30 p.m.

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

Outside location for Director Larry Russell – Victoria & Alfred Hotel, Business Center, Cape Town, 8001, South Africa

Closed Session begins at 5:30 p.m.

Marin Water Mt. Tam Conference Room, 220 Nellen Avenue, Corte Madera, CA 94925

Public Participation:

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

On a computer or smart device, go to: **https://marinwater.zoom.us/j/88134852296**

By phone, dial: **1-669-444-9171** and use Webinar ID: **881 3485 2296**

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. **Announcement of Closed Session Item(s); Public Comments on Closed Session Item(s)**

   Following announcement of Closed Session items and prior to recess into Closed Session, the public may speak up to three minutes on items to be addressed in Closed Session. The Board will convene to Closed Session in the Mt. Tam Conference Room after public comment.

   a. **Conference with Legal Counsel - Anticipated Litigation**
   (Initiation of litigation pursuant to §54956.9(c))

   Number of Potential Cases: One

   Adjourn closed session and reconvene to open session in the Board Room and via Zoom.

4. **Reconvene to Open Session; Closed Session Report Out**
5. **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.

6. **Directors' and General Manager's Announcements** (6:40 p.m. – Time Approximate)
7. **Board Committee Reports**

   Each Committee Chair or Vice Chair will provide a report on recent committee meetings. Directors may ask questions or provide brief comments or requests for additional information on an item.

8. **Consent Items** (6:50 p.m. – Time Approximate)

   All Consent Items will be enacted by a single action of the Board, unless specific items are pulled from Consent by the Board during adoption of the agenda for separate discussion and action.

   a. February 11, 2025 Board Meeting Minutes

   RECOMMENDATION: Approve the minutes of the Board of Directors' Regular Bi-Monthly Meeting on February 11, 2025

   b. General Manager's Report January 2025

   RECOMMENDATION: Approve Report

   c. Award of Two Professional Services Agreements for Geotechnical and Civil Design Engineering Services

   RECOMMENDATION: Authorize the General Manger to execute two professional services agreements with Miller Pacific Engineering Group and Wood Rodgers, Inc. for on-call "as-needed" geotechnical and civil design engineering services, with each contract in an amount not to exceed of $600,000

9. **Regular Items** (6:55 p.m. – Time Approximate)

   a. Water Supply Roadmap - Selection of a Preferred Project to Move Into Design and Environmental Review

      RECOMMENDATION: Direct staff to: (i) proceed with design and environmental review of the PETA-3 conveyance project; (ii) continue to drive ongoing water efficiency efforts , (iii) continue to investigate the feasibility of increased local storage for additional water supply; (iv) continue to monitor desalination technological advances and cost, (v) pursue opportunities for grant funding or public-private partnership funding for recycled water projects, (vi) identify and evaluate other potential water supply opportunities, such as groundwater banking, as they arise, and (vii) develop deeper understanding of current state of science on climate change including the rate of change and potential effects on water resources

10. **Future Board and Committee Meetings and Upcoming Agenda Items**

    This schedule lists upcoming board and committee meetings as well as upcoming agenda items for the next month, which may include Board interest in adding future meeting items. The schedule is tentative and subject to change pending final publication and posting of the meeting agendas.

    a. Upcoming Meetings

11. **Announcement of Closed Session Item(s); Public Comments on Closed Session Item(s) - None.**

12. **Reconvene to Open Session; Closed Session Report Out** - **Not applicable.**

13. **Adjournment** (8:30 p.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.

Information agendas are available for review at the Civic Center Library, Corte Madera Library, Fairfax Library, Mill Valley Library, Marin Water Administration Building, and marinwater.org.

Posted: 02-21-2025

MARIN WATER

STAFF REPORT

Meeting Type:	Board of Directors
Title:	February 11, 2025 Board Meeting Minutes
From:	Terrie Gillen, Board Secretary
Through:	Ben Horenstein, General Manager
Meeting Date:	February 25, 2025

TYPE OF ACTION: X Action Information

RECOMMENDATION: Approve the minutes of the Board of Directors' Regular Bi-Monthly Meeting on February 11, 2025

SUMMARY: The Board of Directors held their regular bi-monthly meeting on February 11, 2025. The minutes of that meeting are attached for your approval.

DISCUSSION: None.

ENVIRONMENTAL REVIEW: Not applicable.

FISCAL IMPACT: None.

ATTACHMENT(S):

1. Draft February 11, 2025 Meeting Minutes

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

Attachment 1

NOTICE OF THE BOARD OF DIRECTORS' REGULAR BI-MONTHLY MEETING

Tuesday, February 11, 2025 at 6:30 PM

MINUTES

LOCATIONS:
Open Session to start at or after 6:30 p.m.
Marin Water Board Room – 220 Nellen Avenue, Corte Madera, CA 94925

Public Participation:
The public attended this meeting in-person or remotely using one of the following methods:
on a computer or smart device, https://marinwate.zoom.us/j/88134852296, or
by phone, 1-669-444-9171 using Webinar ID#: 881 3485 2296.

DRAFT

AGENDA ITEMS:

1. Call to Order and Roll Call

President Matt Samson called the meeting to order at 6:30 PM.

DIRECTORS PRESENT

Larry Russelll

Jed Smith

Ranjiv Khush

Diana Maier

Matt Samson

2. Adoption of Agenda

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

There were no public comments.

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

3. Announcement of Closed Session Item(s); Public Comments on Closed Session Item(s) - None.

4. Reconvene to Open Session; Closed Session Report Out - Not applicable.

5. Public Comment on Non-Agenda Matters

There were two (2) public comments.

6. Directors' and General Manager's Announcements

- President Samson reported that he attended the Employee Recognition Event on January 28 and acknowledged the award winners and Operations staff for putting together the event.

- Director Russell reported that he attended the Sonoma Water Advisory Committee/Technical Advisory Commitee meeting and North Bay Watershed Association meeting, and provided highlights of what were discussed at those meetings.

7. Board Committee Reports

- Chair Smith provided highlights from the Finance & Administration Committee Meeting on January 23, 2025.

- President Samson reported that on January 24, 2025, he attened the Lagunitas Technical Advisory Committee field trips and acknowledged the Watershed staff for the work they did.

8. Consent Items

a. Board Meeting Minutes for Approval

RECOMMENDATION: Approve the minutes of the Communications & Water Efficiency Committee Meeting/Special Meeting of the Board of Directors on November 20, 2024, Board of Directors' Special Meeting on January 14, 2025, Regular Bi-Monthly Meeting on January 21, 2025, and Special Meeting on January 28, 2025

b. Professional Services Agreement for Northern Spotted Owl for 2025 and 2026 Monitoring (MA-6390)

RECOMMENDATION: Review and approve a Professional Services Agreement with Point Blue Conservation Science in the amount of $199,223 for two years of Northern Spotted Owl Survey

Vice President Smith made the motion to approve the Consent Calendar. Director Khush seconded the motion.

There were no public comments.

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

9. Regular Items

a. Capital Program Update

RECOMMENDATION: Receive a staff update on the 2024 fourth quarter Capital Improvement Program

Engineering Director Alex Anaya presented this item.

Discussion occurred throughout the presentation.

There were no public comments.

This was an information item. The Board pdid not take any formal action.

b. 2025 Annual Strategic Work Plan

RECOMMENDATION: Accept the District's 2025 Annual Strategic Work Plan

General Manager Ben Horenstein presented this item.

Discussion followed.

There was one (1) public comment.

Director Khush made the motion to accept the Work Plan. Director Maier seconded the motion.

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

10. Future Board and Committee Meetings and Upcoming Agenda Items

a. Upcoming Meetings

The Board Secretary listed upcoming internal and external meetings for the remainder of February 2025.

There were no comments.

11. Announcement of Closed Session Item(s); Public Comments on Closed Session Item(s) - None.

12. Reconvene to Open Session; Closed Session Report Out - Not applicable.

13. Adjournment

There being no further business, the Board of Directors' Regular Bi-Monthly Meeting adjourned on February 11, 2025 at 7:26 p.m.

_____

Board Secretary

MARIN WATER

STAFF REPORT

Meeting Type: Board of Directors

Title: General Manager's Report January 2025

From: Ben Horenstein, General Manager

Meeting Date: February 25, 2025

TYPE OF ACTION: X Action Information

RECOMMENDATION: Approve Report

SUMMARY:

A. HIGHLIGHTS:

- The daily average net production for the month of January 2025 was 14.3 MGD compared to 13.9 MGD for the month of January 2024. Typical usage for January is 17.2 MGD.
- Staff conducted a resource agency site visit on January 30th in support of the Nicasio Spillway Modifications Project. This was the first meeting with the agencies and provided an opportunity to discuss the Districts project with the various agencies and obtain preliminary feedback. Staff is looking to have check in meetings with the interested resource agencies on a regular basis as the District proceeds with this Project.
- Staff advertised the Pine Mountain Tanks Phase 2 Project. Now that the Phase 1 project has been complete, it will provide the space to construct the two new two million gallon water storage tanks. Staff will be opening bids for this project in March. This project will replace Pine Mountain Tunnel with seismically resilient water storage tanks that will improve system reliability and storage capacity to our customers.
- System Maintenance completed the task of renewing 28 plastic services by upgrading them to one inch copper on Peacock Court in San Rafael. Working with the Home Owners Association in the area, we were able to remove the plastic service laterals ahead of their paving project.
- The District continued with Year 6 of the BFFIP plan through January 2025. The District continued pile burning in January near the Bon Tempe Treatment Plant and West Peak. Routine vegetation management projects in January focused on management of invasive broom at various watershed locations.
- The District hosted a habitat restoration volunteer event that was paired with a nature walk in the Lake Lagunitas area on January 18th, a trail stewardship event on the watershed, and Ranger's hosted a basic trout fishing training at Bon Temp.

- Winter storms resulted in a slide on Bon Tempe Treatment Plan road that impact the primary access point to the treatment plant and power line infrastructure. The District coordinated with PG&E to restore power and cleared the slide over a two day period.
- Winter storms resulted in a second slide along Worn Springs Fire rd that impacted Phoenix Lake fire road. The District cleared the slide and is evaluating options for a permanent repair along Worn Springs Fire Rd.
- Fisheries staff in collaboration with ESA conducted additional field site visits to monitoring the recently completed restoration work in the Lagunitas Creek and to make some minor design modifications to the Phase I B sites that are slated for implementation in the summer of 2025.

MARIN WATER GRANT STATUS

PROJECT DETAILS						REQUIREMENTS		BUDGET	
OPPORTUNITY	FUNDER	FUNDER PRIORITIES	AGREEMENT /APPLICATION DATE	MATCHING PROJECT	DESCRIPTION	STATUS	PREREQUISITE	FUNDS REQUESTED	MATCH REQUIREMENT %
CURRENT GRANTS									
Prop.1. Round 2 IRWM Disadvantaged Community	DWR	Water Infrastructure	12/1/22	Marin City/San Rafael Infrastructure	Replacing aging transmission lines and laterals in Marin City and San Rafael's Canal District	Funded	IRWM CC Approval	$6,500,000	0
Forestry Corps	CCNB	Vegetation Management	Jan 2023	Ongoing Forestry work	Workforce development; state funding directly to CCNB to fund crews working on the watershed	Funded	Corps Partnership	$500,000	0
Fisheries Restoration Grant Program	CDFW	Fisheries	4/20/23	Lagunitas Creek Restoration	Funding for Phase II site design and CEQA	Funded	30% designs	$600,000	50%
Lagunitas Creek Salmonid Spawning Gravel Improvement Project	DWR Riverine	Fisheries	11/1/22	Lagunitas Creek Restoration	Gravel augmentation for Lagunitas Creek	Funded	None	$590,000	0
Lagunitas Creek Salmonid Spawning Gravel Improvement Project	USBR Environmental Restoration Project	Fisheries	8/17/23	Lagunitas Creek Restoration	Gravel augmentation for Lagunitas Creek Sites 1-3	Funded	CEQA	$1,400,000	39.39%
Rain Water Harvesting Project	MCSTOPP	Conservation	Unknown	Conservation	Barells for customers	Funded	None	$15,032	0
Urban Multi-Benefit Drought Relief	DWR	Water Resources	3/19/22	SWSA	Strategic Water Supply	Funded	None	$2,000,000	0
Water Conservation	USBR WEEG	Conservation		Conservation		Funded		$722,925	
Water Conservation	DWR IRWMP	Conservation		Conservation		Funded		$222,477	
Prop 1. Fisheries Restoration	CDFW	Fisheries	7/1/23	Lagunitas Creek Restoration	Lagunitas Creek Restoration Sites 1-6	Funded	60% designs	$4,600,000	0
CA Division of Boating & Waterways	NRA	Water Quality	7/1/23	Reservoir Water Quality	Monitor and prevent infestation of quagga and zebra mussels	Funded	NA	$86,800	0
Azalea Hill Trail Restoration	State Parks	Trail Restoration	2/1/20	Watershed	Azalea Hill Restoration	Funded	None	$952,657	0
One Tam Forest Health Strategy	CA WCB	Forestry Restoration	11/21/23	BFFIP Implementation	BFFIP Implemenation for 2-3 years	Funded	CEQA	$2,800,000	0
WaterSMART Aplied Science	USBR	Water Resource	10/15/2023	Advanced Weather Modeling	Funding for weather modeling to inform water resources management	Funded	TBD	$150,628.00	50%
One Tam Forest Health Phase II	Cal Fire	Forestry Restoration	1/15/2024	BFFIP Implementation	BFFIP Implemenation for 2-3 years	Notice of Award	CEQA	$3,000,000	TBD
							TOTAL FUNDED:	**$24,140,519**	
Desal Feasibility Study	USBR	Desalination	2/28/23	Desalntation	Exploring new brackish desal in Petaluma	Open	None	$200,000	50
Hazard Mitigation Program	CalOES/ FEMA	Natural Hazards	Aug-24	Treatment Plant Clarifiers	Funds to address seismic hazards in water treatment facilities	Open	NOI APPROVAL	$22,000,000.00	25%
WaterSmart Energy Efficiency	USBR	Conservation	2/22/2024	AMI	Funding to expend AMI	Open	Environmental Compliance	$1,000,000	50%
WaterSMART Planning & Design	USBR	Water Supply	5/20/2024	Water Supply Planning	Water Supply - Nicasio Spillway	Open	TBD	$400,000.00	
Environmental Resources Grant	USBR	Forest Health	6/24/2024	BFFIP Implementation	BFFIP Implementation for 2-3 years	Open	TBD	$3,000,000.00	
CDFW Environmental Enhancement Fund	CDFW	Fisheries	9/11/2024	Lagunitas Creek Restoration	Phase II	Not Funded	TBD	$3,457,044.00	0%
USBR Drought Resiliency Program	USBR	Water Supply	10/7/2024	Water Supply Planning	Water Supply - Nicasio Spillway	Open	TBD	$3,000,000.00	50%
Dam Safety & Climate Resilience Local Assistance	DWR	Infrastructure	10/21/24	Phoenix and Lagunitas Valves & Actuator Replacement	Dam Safety	Open	TBD	$2,000,000.00	50%
UPCOMING APPLICATIONS							**TOTAL OPEN:**	**$29,600,000**	
USBR WaterSmart & Energy Efficiency (WEEG)	USBR	Conservation	11/13/2024	AMI Expansion	AMI Expansion	Open	TBD	$3,500,000.00	50%
LONG TERM OPPORTUNITIES (ongoing development)									
2024 Water Bond	State of CA	Water supply projects	Fall 2024	SWSA Water Supply Projects	Currently in Legislature	In legislature	Voter approval; District participation	TBD	
Water Resources Development Act	Army Corps of Engineers	Water supply projects	FY 2024	SWSA Water Supply Projects	Pursuing for No Regrets and regional projects	In appropriations	Authorization (secured 2022)	$28,000,000.00	
Small Storage Program	USBR	Water Supply	Fall 2024	Phoenix Lake	Funding for new water supply projects	TBD	Approved Feasibility Study	TBD	
United States Department of Fish and Wildlife	USDFW	Water Supply	Unknown	Phoenix Lake	Habitat Conservation Planning	TBD	Habitat Conservation Pl	TBD	

DISCUSSION:

B. SUMMARY:

AF = Acre Feet
Mg/L = milligrams per liter
MPN = most probable number
MPY = mils per year
MG = million gallons
NTU = nephelometric turbidity units

1. Water Production:

	FY 2024/25		FY 2023/24	
	(million gallons)	(acre-feet)	(million gallons)	(acre-feet)
Potable				
Total production this FY	4,485	13,762	4,354	13,362
Monthly production, January	443	1,359	431	1,323
Daily average, January	14.29	43.85	13.91	42.69
Recycled				
Total production this FY	167.64	514.45	163.78	502.62
Monthly production, January	8.86	27.19	11.99	36.79
Daily average, January	0.56	1.71	0.29	0.89
Raw Water				
Total production this FY	61.56	188.92	38.84	119.20
Monthly production, January	14.13	43.36	0.00	0.00
Daily average, January	0.29	0.88	0.00	0.00
Imported Water				
Total imported this FY	1,433	4,397	1,696	5,204
Monthly imported, January	12	36	49	151
Reservoir Storage				
Total storage, January	25,927	79,566	22,927	79,566
Storage change during January	0	0	3,308	10,153
Stream Releases				
Total releases this FY	1,931	5,926	2,009	6,166
Monthly releases, January	421	1,293	181	555

2. Precipitation:

	FY 2024/25 (in.)	FY 2023/24 (in.)
ALPINE	29.76	26.21
BON TEMPE	24.35	23.09
KENT	31.60	26.88
LAGUNITAS	28.09	27.70
NICASIO	21.22	17.06
PHOENIX	29.10	26.83
SOULAJULE	23.05	17.26

* Average to date = 21.53 inches

3. Water Quality:

Laboratory	FY 2024/25	FY 2023/24
Water Quality Complaints:		
Month of Record	18	7
Fiscal Year to Date	135	51
Water Quality Information Phone Calls:		
Month of Record	10	10
Fiscal Year to Date	85	26

The WQ lab ensured that the water supplied met or surpassed water quality regulations by collecting and analyzing 1,890 analyses on treatment plants and distribution system samples.

Mild steel corrosion rates averaged 1.69 (0.27 – 4.45) MPY. The AWWA has recommended an operating level of <5 MPY with a goal of <1 MPY.

Complaint Flushing: One flushing event was performed at 17 Pueblo Dr. in San Rafael to ensure water quality for this month on record.

Disinfection Program: 1,766’ of new pipelines were disinfected during the month of January. Performed chlorination on 10 water storage tanks to ensure compliance with bacteriological water quality regulations.

Tank Water Quality Monitoring Program: Performed 30 water quality-monitoring events on storage tanks for various water quality parameters this month to help ensure compliance with bacteriological water quality regulations.

Summary:

The lab analyzed 1,890 treatment plant and distribution water samples, and the water quality department treated 10 tanks for low chlorine and checked an additional 30 tanks for low chlorine residual in January 2025.

4. Water Treatment:

	San Geronimo		Bon Tempe		Ignacio	
Treatment Results	Average	Monthly Goal	Average	Monthly Goal	Average	Monthly Goal
Turbidity (NTU)	0.05	≤ 0.10	0.04	≤ 0.10	0.04	≤ 0.10
Chlorine residual (mg/Lv)	2.71	2.75 *	2.74	2.75 *	2.70	2.75 *
Color (units)	0.2	≤ 15	0.4	≤ 15	0.2	≤ 15
pH (units)	7.8	7.8*	7.7	7.8*	8.0	8.1**

* Set monthly by Water Quality Lab

** pH to Ignacio is controlled by SCWA

5. Capital Improvement:

a. Pine Mountain Tank Phase 1 – Rough Grading Project (D21043): The Pine Mountain Tunnel Tanks Replacement Project is a multi-year two-phased project that will replace the existing Pine Mountain Tunnel. This project (Phase 1) will excavate approximately 45,000 cubic yards of hillside and will install a soil nail retaining wall in preparation for a future project that will install two 2-million gallon pre-stressed concrete storage tanks (Phase 2). This Phase 1 project will also perform site grading and drainage improvements.
   - Project Budget: $7,734,575
   - Monthly Activities: The project has reached substantial completion.

b. Wolfback Ridge Tanks Rehabilitation Project (D20009): This project will replace the roof and recoat both the interior and exterior of each tank at Wolfback Ridge in Sausalito.
   - Project Budget: $950,000

- Monthly Activities: The Contractor has completed the tank roof repair and interior coating work on one of the two tanks. The Contractor is currently performing exterior preparation and coating on the first tank. Once the first tank is rehabilitated and tested, it will be placed back into service and the second tank will be taken out of service to perform repair and recoating work on the second tank. The contract completion is estimated March 2025.

c. Granada Drive Pipeline Replacement Project (D23020): This project will install approximately 10,230 linear feet of welded steel pipe to replace old, leak-prone, and seismic-deficient piping in the Town of Corte Madera. The District coordinated with the Town to incorporate the Town's road reconstruction work into the District's project to minimize construction impacts to the community.
   - Project Budget: $5,564,384
   - Monthly Activities: The Contractor has completed all water system installation work, with exception of minor work on Koch road. Final paving and miscellaneous concrete work remains on portions of Granada Drive, Sonora Way, Endeavor Drive, and Prince Royal Drive, pending acceptable weather conditions. The project is anticipated to be completed March 2025.

d. Tiburon Pipeline Replacement Project (D23018): The 2024 Tiburon Pipeline Replacement Project is a component of the District's Capital Improvement Program and Fireflow Improvement Program. The project includes the installation of approximately 3,490 linear feet of 8-inch, 6-inch, and 4-inch welded steel potable water pipe with valves, fittings, laterals, and appurtenances in the Town of Tiburon. This project replaces 102 year old, leak-prone, cast iron pipe with new reliable, seismically resilient welded steel pipe.
   - Project Budget: $3,112,285
   - Monthly Activities: The Contractor has completed all water system installation work, with exception of miscellaneous punch list items and final paving restoration. The project is expected to be completed February.

e. Rock Ridge Pipeline Replacement Project (F22001): The Rock Ridge Pipeline Replacement Project (Project) is a component of the Fire Flow Improvement Program. This Project will install approximately 7,590 feet of new 8" and 6" welded steel and polyvinyl chlorine (PVC) pipe to replace the old, leak prone fire flow deficient piping installed as early as 1934.
   - Project Budget: $3,928,105
   - Monthly Activities: The Contractor has completed approximately 3,500 linear feet of pipeline installation and is currently working on Gregory Drive, Oak Manor Drive, and Cynthia Court. The project is expected to be completed May 2025.

f. Marin City Phase I Pipeline Replacement Project (GC25005): The Marin City Phase I Pipeline Replacement Project is a component of the District's Capital Improvement Program. This Project will install approximately 9,200 linear feet of 8, 6 and 4-inch welded steel pipe to replace the old, leak prone, seismic deficient pipe installed as early as 1959.
   - Project Budget: $4,069,592.20
   - Monthly Activities: The Contractor has mobilized to the project site and is making good progress installing new welded steel pipeline along Sir Francis Drake between Phillips

Drive and Buckelew Street. The Contractor has installed more than 1,500 linear feet to date. The project is expected to be completed October 2025.

6. Other:

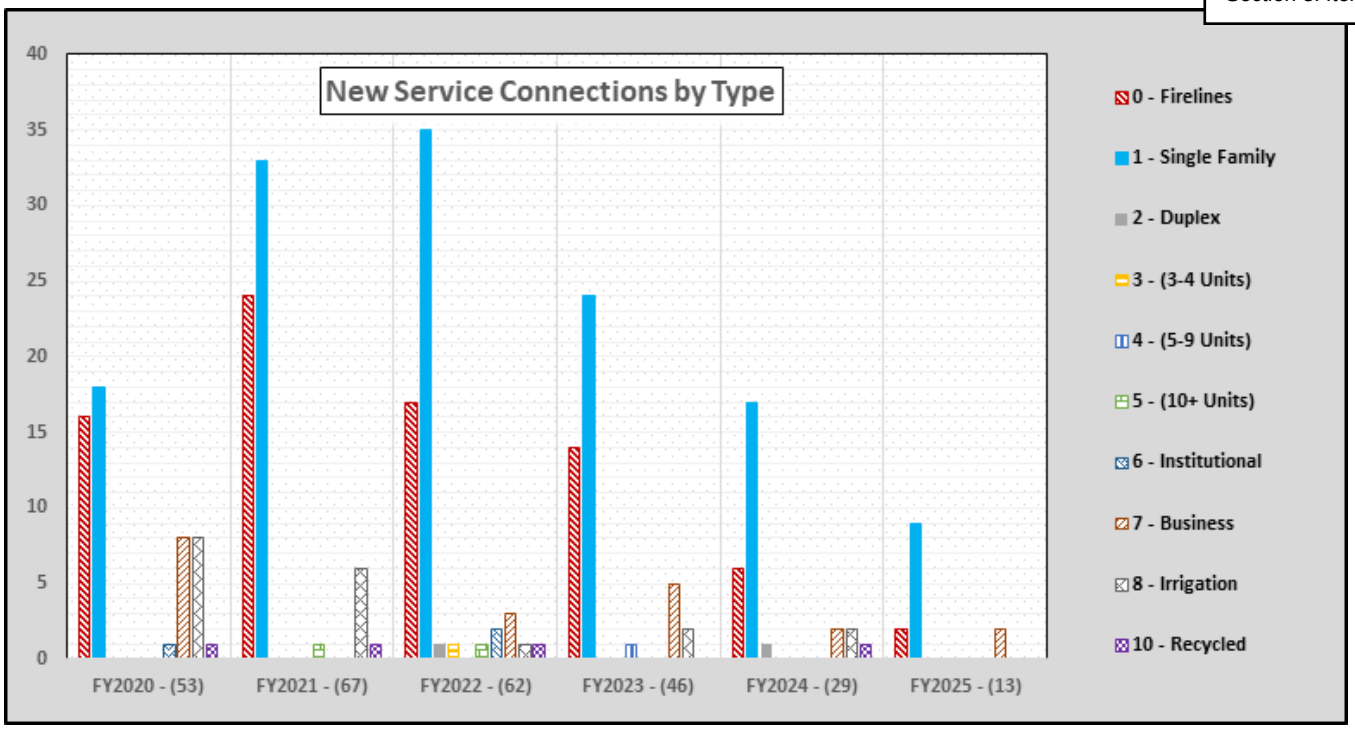
Pipeline Installation	FY2024/25	FY2023/24
Pipe installed during January (feet)	1,890	0
Total pipe installed this fiscal year (feet)	15,818	1,439
Total miles of pipeline within the District	908*	908*

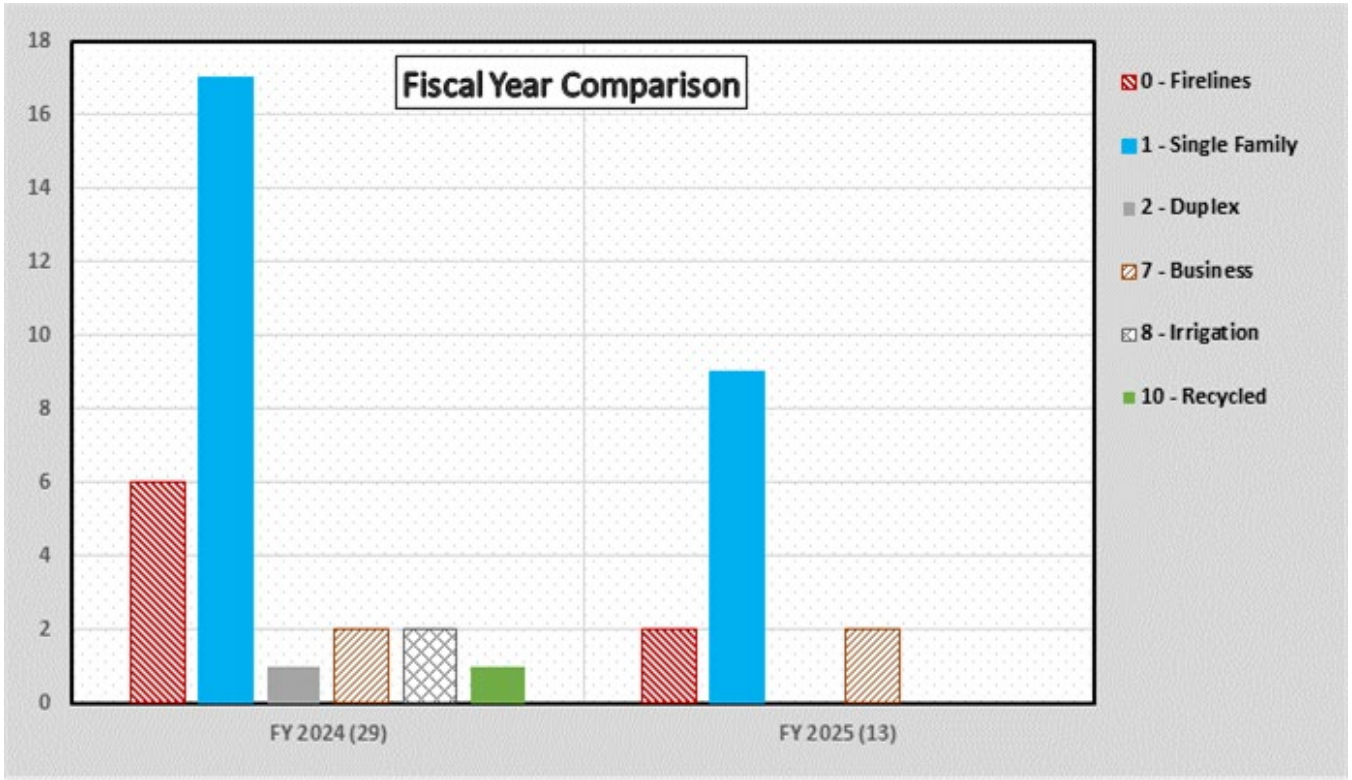
** Reflects adjustment for abandoned pipelines*

Pipe Locates (610 Responses)	FY2024/25	FY2023/24
Month of January (feet)	37,375	29,762
Total this fiscal year (feet)	265,736	212,180

Main Line Leaks Repaired:	FY2024/25	FY2023/24
Month of January 12	23	7
Total this fiscal year (7/1/24-5/31/25)	115	76

Services:	FY2024/25	FY2023/24
Service upgrades during January	0	0
Total service upgrades this FY	14	94
Service connections installed during January	0	0
Total active services as of February 1st, 2024	60,595	60,555
(Total Including firelines)	61,984	61,936


New Service Connections by Type
40
35
30
25
20
15
10
5
0
FY2020 - (53)
FY2021 - (67)
FY2022 - (62)
FY2023 - (46)
FY2024 - (29)
FY2025 - (13)
0 - Firelines
1 - Single Family
2 - Duplex
3 - (3-4 Units)
4 - (5-9 Units)
5 - (10+ Units)
6 - Institutional
7 - Business
8 - Irrigation
10 - Recycled


Fiscal Year Comparison
18
16
14
12
10
8
6
4
2
0
FY 2024 (29)
FY 2025 (13)
0 - Firelines
1 - Single Family
2 - Duplex
7 - Business
8 - Irrigation
10 - Recycled

7. Recruitments and Hires

The District is currently recruiting for the following positions:

1. Associate Engineer (2 Positions)
2. Customer Service Representative III
3. Environmental Planner
4. Engineering Aide – Pipe Locator
5. Treatment Plant Trainee/ Treatment Plant Operator
6. Welder/Fabricator

Promotion through competitive process:

1. Construction Inspector (2 Positions)
2. Meter Services Technician
3. Heavy Equipment Operator (2 Positions)
4. Natural Resources Technician II
5. Engineering Records Manager

The District recently hired new employees for the following positions:

1. Water Conservation Specialist (2 Positions)
2. Engineering Technician-Development Services Supervisor

8. Demand Management:

	Jan-25	FY 24/25 TOTAL	FY 23/24 TOTAL	FY 22/23 TOTAL
WATER-EFFICIENCY PROGRAMS				
Water-Use Site Surveys				
Conservation Assistance Program (CAP) Consultations				
Residential properties resi 1-2 (single-family)	49	381	404	291
Residential properties resi 3-5 (multi-family units)	0	5	6	3
Non-residential properties resi 6-7 (commercial)	0	0	0	3
Dedicated irrigation accounts resi 8-10 (large landscape)	0	2	0	0
Marin Master Gardeners' Marin-Friendly Garden Walks				
Residential garden walks	5	61	173	72
Public Outreach, Education, Customer Service				
Public outreach events (number of people attending)	0	3500	7022	17775
Public education events (number of participants)	0	225	425	328
Department customer calls/emails	375	4116	4485	4150
Outreach to new Marin Water customers (letters sent)	180	760	1908	0
School Education				
School assemblies				
Number of activities	2	6	19	0
Number of students reached	2300	6900	21850	0
Field trips				
Number of activities	0	10	16	15
Number of students reached	0	204	343	307
Classroom presentations				
Number of activities	0	6	14	17
Number of students reached	0	167	457	531
Other (e.g. Earth Day booth events, school gardens)				
Number of activities	0	0	3	1
Number of students reached	0	0	400	480
Incentives				
Number of HECWs approved	0	2	98	103
Rain Barrel/Cisterns approved	2	11	9	15
Rain Barrel/Cisterns gallons	2700	5560	0	0
Rain Barrel Give-a-way (Gallons)	2300	20460	4840	0
"Cash for Grass" Lawn Replacements approved	6	45	61	116
"Cash for Grass" (Best Practices) square ft. lawn replaced	1792	3362	0	0
"Cash for Grass" (Standard) square ft. lawn replaced	2836	52648	0	0
Number of Laundry-to-Landscape Systems (kits) approved	0	0	1	7
Hot water recirculating system rebates	0	3	11	30
Pool Cover rebates	4	20	35	27
HET rebates	0	4	17	22
Number of Smart Home Water Monitor "Flume Direct Distribution" redeemed	44	362	544	271
Number of Smart Controllers MW rebates approved	1	20	49	35
Number of Smart Controllers "RainBird compatible w/Flume" approved	1	43	131	0
Number of Smart Controllers "Rachio Direct Distribution" approved	5	109	219	77
Advanced Metering Infrastructure (AMI)				
AMI leak letters sent to customers (>200 GPD)	82	808	1330	1168
ORDINANCES				
Water Waste Prevention				
Water Waste Reports Received	9	120	224	392
Water Waste Notifications Sent	3	24	49	81
Landscape Plan Review				
Plans submitted	7	45	117	88
Plans exempt	1	4	23	5
Plans completed	1	13	30	20
Plans in workflow (pass & fail)	8	69	172	145
Tier 4 Exemption				
Inspections that resulted in a pass	0	1	2	1

9. Watershed Protection:

More Medical Calls

After several months of decreased medical aid calls on the watershed, the rangers saw an increased number of medical aid calls. During January, there were five medical aid calls, four involving mountain bikers, one biker, and one hiker.

Waterfalls Mean Visitors

Heavy rains in late 2024 meant the waterfalls on the watershed have been recharged, and in turn, this means more visitors to the waterfall trails, such as Cataract and Carson Falls Trails. Cataract Trail, especially, sees heavy use from visitors. Illegal parking at the Bolinas Road Trailhead, littering, and impacts from off-trail use kept the rangers and ranger trainees busy during the month. Extra foot patrols and preventive search and rescue during the weekends to help manage the issues and prepositions rangers on one of Mount Tam's most popular trails, where numerous medical aid calls occur. Nearly 20% of all medical calls in 2024 occurred on Cataract Trail. During the month, the ranger trainees also lead efforts to decommission environmental damaging and dangerous social trails along Cataract Trail.

Illegally Parked SUV obstructing traffic at the Cataract Trailhead

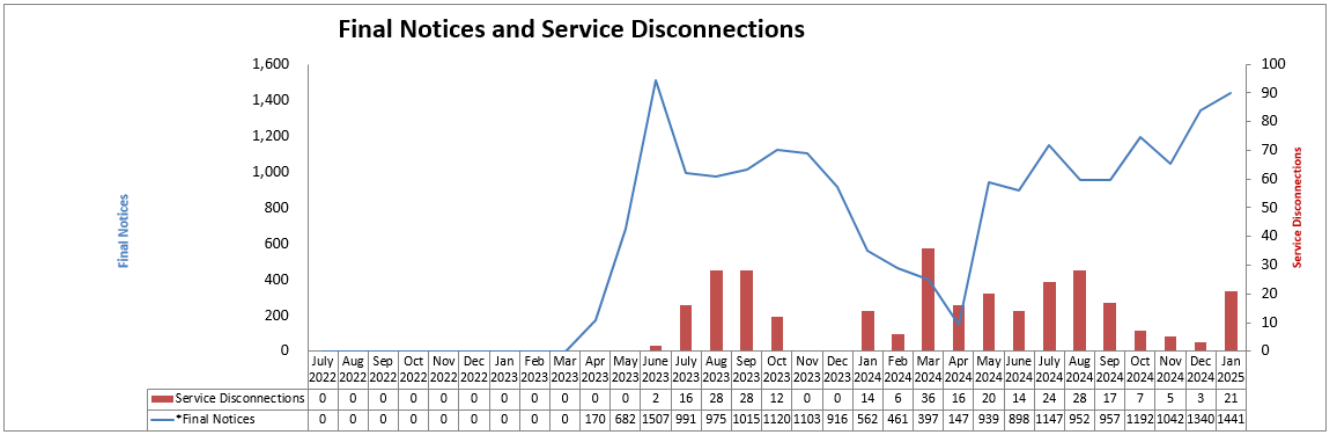
Incidents and Events	Total 909
Visitor Assists	281
Warnings	200
Citations	121
Fish and Game checks	95
Dam Checks	79
Assist Maintenance	65
Misc. Law Enforcement Calls	20
Vandalism	13
Preventive Search and Rescue	6
Fire Service	6
Medical Aid	5
Assist Outside Law Enforcement	2
Search and Rescue	2
Citizen Complaint Illegal Bike Use	2
Found Property	2
Misc. Calls for Service	2
Suspicious Circumstance	2
Verbal Dispute	1
Citizen Complaint: Off Leash Dogs	1
Theft	1
Humane/Animal Call	1
Outreach/Interpretation	1
Illegal Trail Building	1

Citations Issued	Total 121
Nonpayment of Parking Fees	99
Obstructing Traffic/6 ft of Center	16
Parking After Sunset	5
Dog off Leash	1

Type of Patrol	Jan
Foot	145
Bike	20

10. Shutoff Notices and Disconnections:

*Final Notices
Service Disconnections
* Includes 10 day and final notices



	July 2022	Aug 2022	Sep 2022	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	June 2023	July 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023	Jan 2024	Feb 2024	Mar 2024	Apr 2024	May 2024	June 2024	July 2024	Aug 2024	Sep 2024	Oct 2024	Nov 2024	Dec 2024	Jan 2025
Service Disconnections	0	0	0	0	0	0	0	0	0	0	0	2	16	28	28	12	0	0	14	6	36	16	20	14	24	28	17	7	5	3	21
*Final Notices	0	0	0	0	0	0	0	0	0	170	682	1507	991	975	1015	1120	1103	916	562	461	397	147	939	898	1147	952	957	1192	1042	1340	1441

FISCAL IMPACT: None.

ATTACHMENT(S): None.

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Office of the General Manager	_____	
	Ben Horenstein General Manager	**Ben Horenstein General Manager**

STAFF REPORT

Meeting Type:	Board of Directors
Title:	Award of Two Professional Services Agreements for Geotechnical and Civil Design Engineering Services
From:	Alex Anaya, Director of Engineering
Through:	Ben Horenstein, General Manager
Meeting Date:	February 25, 2025

TYPE OF ACTION: X Action Information

RECOMMENDATION: Authorize the General Manger to execute two professional services agreements with Miller Pacific Engineering Group and Wood Rodgers, Inc. for on-call "as-needed" geotechnical and civil design engineering services, with each contract in an amount not to exceed of $600,000

SUMMARY: Staff solicited competitive proposals for as-needed geotechnical and civil design engineering services related to geotechnical reports and retaining wall design, in support of the District's Capital Improvement Program. The on-call contract will ensure District staff can efficiently respond to landslides near critical assets throughout the District as well as provide design level geotechnical reports for pump station and tank replacement design work. Staff recommends that the Board authorize the General Manager to execute two professional services agreements, one with Miller Pacific Engineering Group and one with Wood Rodgers, Inc., for on-call "as-needed" geotechnical and civil design engineering services, with each contract in an amount not to exceed $600,000.

DISCUSSION: The Mount Tamalpais Watershed is the source of a majority of the water produced for central and southern Marin County residents. The topography of the watershed is characterized by open, low rolling hills in the lower watershed and rugged canyons in the upper watershed. Many miles of critical, large diameter transmission pipeline for both raw and treated water, as well as fire roads traverse across the Watershed's 18,000 acres. Intense rainfall often is a trigger for small to large scale landslide events that transpire every winter. When these landslide events occur adjacent to pipelines and fire roads, District Staff must respond quickly to design and repair the landslide in order to protect District assets. Geotechnical reports, including soil borings, are often an early step in both planning and design projects as they relate to landslide repair and retaining wall design. A Geotechnical report is completed by a California Registered Geologist or Geotechnical Engineer and will layout the requirements for an engineered landslide repair. Once the report is finalized, a retaining wall structure

design, including plans, specifications, and cost estimates, are completed to facilitate dry season construction.

In addition, the District will be working on various pump station and water storage tank rehabilitation projects as the District continues its capital program. Some of those projects will require geotechnical reports to evaluate and determine design parameters such as foundation design, soil stabilization needs and retaining/soil nail walls. Having these services available on an on-call basis will provide a streamlined approach for project design continuity and ensure timely completion and construction of capital projects.

District staff elected to solicit proposals and pursue two new multi-year, on-call professional services agreements for geotechnical engineering and civil design engineering services to ensure consultant availability based on District needs. The consultant's will execute geotechnical and civil design work including geologic site assessments, soils engineering, geotechnical reports, earth retaining structure and drainage design in support of design work performed by staff.

On November 19, 2024, the District conducted a public competitive solicitation for proposals for as-needed geotechnical and civil design engineering services from various local geotechnical and civil engineering design firms. On December 20, 2024 staff received seven proposals from various qualified firms including Miller Pacific Engineering Group, Wood Rodger, Inc., Haley & Aldrich Inc., Ninyo & Moore, Geocon Consultants, Inc., Shannon & Wilson Inc., and RGH Consultants.

The seven proposals and were evaluated by staff according to criteria outlined in the Request for Proposal and staff then selected four firms for formal interviews. After interviewing the top four consultants, staff unanimously concluded that Miller Pacific Engineering Group and Wood Rodgers, Inc. provided the best comprehensive approach based on their expertise in earth retaining structures, scope understanding, technical competency, project manager experience, and availability.

Each contract will include a baseline contract period of approximately three years, ending in February 2028, unless otherwise extended by a no cost contract amendment for up to one additional year of services utilizing the original contract budget amount. Each contract will also include a not-to-exceed limit of $600,000, for a total proposed Board award amount of $1,200,000. Work performed under these contracts will be funded by specific project or operational fund centers previously identified in the District's adopted budget for utilization of these services.

Contract budget and implementation is summarized below:

<u>Budget:</u>

Contract No. 1 Amount:	$600,000
Contract No. 2 Amount:	$600,000
Total Budget:	$1,200,000
Budget Category:	Project-specific from Capital and Operational budgets

<u>Contract Implementation:</u>

Request for Proposals:	November 19, 2024
Proposals Received:	December 20, 2024

Est. Contract Award: February 25, 2025
Baseline Contract Duration: February, 2028

Staff recommends that the Board authorize the General Manager to execute two professional services agreements with Miller Pacific Engineering Group and Wood Rodgers for on-call "as-needed" geotechnical and civil design engineering services, with each contract in an amount not to exceed of $600,000.

ENVIRONMENTAL REVIEW: Not applicable, as environmental review will be specific to each project for which services are provided.

FISCAL IMPACT: The total maximum expenditures under the two proposed contracts will not exceed $1,200,000. Blanket Purchase Orders will be opened for the two contracts and funding will be provided as needed from current Capital and Operations budgets which utilize these services.

ATTACHMENT(S): None.

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Engineering	**Alex Anaya** **Engineering Director**	**Ben Horenstein** **General Manager**

STAFF REPORT

Meeting Type:	Board of Directors
Title:	Water Supply Roadmap - Selection of a Preferred Project to Move Into Design and Environmental Review
From:	Paul Sellier, Water Resources Director
Through:	Ben Horenstein, General Manager
Meeting Date:	February 25, 2025

TYPE OF ACTION: X Action Information

RECOMMENDATION: Direct staff to: (i) proceed with design and environmental review of the PETA-3 conveyance project; (ii) continue to drive ongoing water efficiency efforts , (iii) continue to investigate the feasibility of increased local storage for additional water supply; (iv) continue to monitor desalination technological advances and cost, (v) pursue opportunities for grant funding or public-private partnership funding for recycled water projects, (vi) identify and evaluate other potential water supply opportunities, such as groundwater banking, as they arise, and (vii) develop deeper understanding of current state of science on climate change including the rate of change and potential effects on water resources

SUMMARY: By mid-2021, as a result of historic drought conditions, the District was left with just months of water supply. By December of 2021 with the help of historic rainfall, the District's reservoirs were at capacity. Over the next year the District developed the Strategic Water Supply Assessment (SWSA) that investigated the District's ongoing vulnerability to drought and established the need for additional water supply. The SWSA evaluated a range of water supply alternatives that culminated in February 2023,when the Board selected the Integrated Roadmap for improved water supply resiliency (Roadmap). Since that time, staff has been striving to investigate and implement the Roadmap projects. In particular the work focused on developing a detailed understanding of Local Storage as well as Conveyance of winter water to a Marin reservoir. In addition, costs and considerations for Desalination and Recycled water options, which had been studied in the past, were brought up to date so that all the alternatives could be evaluated. Staff also continued with our aggressive award-winning water efficiency program, successfully reducing overall demand.

DISCUSSION: The Strategic Water Supply Assessment (SWSA) found that under severe drought conditions the District would require an additional 8,500 AFY of water supply, which has been reduced to 6,500 AFY due to water efficiency efforts that has reduced demand to levels significantly lower than anticipated in the SWSA. Planning processes are inherently conservative and as is typical in planning studies, like the SWSA, a number of conservative assumptions were made to arrive at the volume of

water needed. These assumptions provide a buffer such that small deviations in demand (or supply) can be accommodated without compromising water supply resilience.

The overarching goal of the Roadmap is to close the supply gap identified in SWSA thereby enhancing the reliability, flexibility, and resiliency of the District's water system and improving service to Marin Water customers. The Roadmap also represents a change in the way the District thinks about and manages water supply from a short term drought influenced perspective to an ongoing adaptively managed process of continuous assessment. The Roadmap identified five broad strategies for achieving this goal and developing a resilient water supply, including Water Efficiency, In-District Improvements, Sonoma-Marin Partnership, Local Storage Enlargement, and New Supply Development, which includes desalination and recycled water. Over the past year, staff has been reviewing available information and developing new information to thoroughly understand the longer-term projects included in the Roadmap.

Water Efficiency is both a short-term and long term initiative in the Roadmap and continues to be the District's first strategy in stretching the District's existing water supply and as such is included in all water supply plans. The District's award winning water efficiency program includes a wide range of incentive and educational programs to help District customers achieve their water savings goals. The Water Efficiency Master Plan is a user friendly document that lays out a thoughtful, adaptive approach to drive water savings. Since 2021 the District has aggressively pursued water efficiency establishing a number of new programs and a consistent outreach to our customers with considerable results. Demand is today 4,000 AFY less than it was in forecast to be and we have not experienced the typical post-drought bounce back in demand. The incredible response from our customers has allowed us to reduce the water supply goal identified in the SWSA by 2,000 AFY from 8,500 AFY to 6,500 AFY.

As part of driving water efficiency, the District is pursuing the implementation of Advanced Metering Infrastructure (AMI) with a goal of beginning the implementation in 2026 and completion in late 2029 early 2030. AMI will facilitate customers' understanding of how they use water and where additional savings may be possible, as well as provide immediate notification of customer leaks.

Review and Evaluation of Roadmap Projects

At the January 21, 2025 board meeting, staff presented the initial evaluation of the alternatives that resulted in a narrowing of the water supply options. As a result of that evaluation recycled water purple pipe projects, Direct Potable Re-use and Indirect Potable Re-use, 5-MGD and 15-MGD desalination plants, as well as the Upper Nicasio Local Storage and Peta-4 and Cotati-3 alternatives were not prioritized for further consideration. While these projects are not being prioritized at this time, staff anticipates keeping current on developments in desalination, water reuse (IPR/DPR) and in the case of purple pipe projects staff will continue to actively pursue grant funding and private-public partnership funding opportunities to increase recycled water use in the service area. The remaining alternatives are summarized below:

Desalination: The District developed information on desalination across a range of capacities (5-MGD, 10-MGD and 15-MGD). For the final evaluation, staff is focusing on the 10-MGD desalination plant because it has a more favorable unit cost than the 5-MGD plant and is not burdened with the capital cost of the 15-MGD plant. Desalination would take San Pablo Bay water and treat the water to drinking water standards using reverse osmosis membranes. The project would also require significant storage

and pumping facilities to integrate the 10-MGD of treated water into the District's system. Desalination processes produce a brine as a byproduct of treatment, which would be added to the existing Central Marin Sanitation Agency's (CMSA) outfall eliminating the need to construct a dedicated outfall. Disposal of brine is challenging and can lead to environmental concerns even when mixed with treated water from CMSA.

The primary advantage for desalination is that it has the highest reliability in terms of a "drought-proof" water supply since the source of the water is inexhaustible. Desalination would need to be run continuously even in non-drought conditions which drives up the cost of this supply and increases operational complexity for the District. From an implementation standpoint, the desalination plant poses a challenge since it would require overturning an existing ballot measure, several major regulatory permits, substantial environmental analysis and possible litigation over environmental concerns. These factors would push the in-service date out to approximately ten or more years.

The treated water, while complying with all regulations, would have a different source water than the water currently provided by the District. This could create concerns for inequity, as the desalinated water would be provided to only a portion of the service area. Finally, the desalination plant is relatively costly both to construct and to operate – and much of the operational costs need to be borne even in non-drought years. Initial capital costs have been estimated at $330-$440M, and operating costs of about $20M/year on average.

Local Storage Improvements - The project team reviewed extensive existing information and gathered and developed new data to thoroughly review the portfolio of local storage alternatives presented in the Strategic Water Supply Assessment. Each site was reviewed for constructability, potential environmental impact, geotechnical issues, and ultimate overall viability. In April 2024, the project team reviewed 11 alternatives with the Board, narrowing down the shortlist to three options for further evaluation and also recommending Nicasio Spillway Modifications move forward as an independent project. The remaining local storage projects are:

Kent Dam raise - The existing dam at Kent Lake would be raised to increase the capacity of Kent Lake by 20,000 acre-feet, to a new total capacity of about 53,000 acre-feet. Rainfall would fill the new storage which would serve as an emergency drought reserve. Kent Lake is in a very productive watershed and fills in most years. Reliability of the additional drought supply would therefore be very good since the lake would tend to refill quickly in between droughts. For comparative purposes, the project yield is taken as 5,000 acre-feet per year. The additional water supply would blend seamlessly with Marin Water's existing supplies and require no additional costs to integrate the water supply with Marin Water's existing infrastructure. The project would not require the conversion of any private property and any trails that may be inundated could be replaced. The additional inundation area to accommodate the increase is storage capacity is approximately 194 acres. The dam and new area of inundation are on Marin Water property. Once built, the project would have essentially no operating costs or energy usage relative to today's practices.

Implementation would likely exceed 10 years due to complex technical and environmental requirements and a multi-year construction period. The need to drain the reservoir for initial construction, however, would pose an unacceptable risk that renders the project infeasible, given that the lake is Marin Water's most important water supply. Prior implementation of a conveyance project could reduce that construction risk. The initial capital cost is estimated at $520M, the highest of the

projects screened so far. That high initial cost is somewhat offset by extremely low operating costs, and the very long lifetime of the project, easily 100 years or more.

Soulajule Dam raise - The existing dam at Soulajule would be raised to increase the capacity of the reservoir by 20,000 acre-feet, to a new total capacity of about 30,500 acre-feet. Rainfall would fill the new storage which would serve as an emergency drought reserve. Reliability of the additional drought supply would be good because the watershed is fairly productive, though not as productive as that of Kent Lake. The project yield is taken as 5,000 acre-feet per year. The additional water supply would blend seamlessly with Marin Water's existing supplies. The initial capital cost is estimated at $485M, which is the lowest cost of the major storage projects evaluated. The capital cost is somewhat offset by low operating costs, and the very long lifetime of the project, easily 100 years or more.

The project would require taking private lands impacted by inundation of the enlarged reservoir. An additional 523 acres of land would be inundated by increasing the storage capacity of Soulajule, some of which supports valued pasture lands and includes land on which homes and other structures currently sit. Some property owners have indicated that the inundation of this land would make their existing ranching operations unviable. While construction of the project is fairly straightforward, overall Implementation would likely exceed 10 years due to complex technical and environmental requirements, as well as the potential for litigation. Like any storage project, this project provides value only if there is enough rainfall to fill it in between dry years. A conveyance project could provide synergistic benefits.

Sonoma-Marin Conveyance Alternatives: The project team narrowed 13 conveyance alternatives to a shortlist of three possible projects that were presented to the Board in April 2024. Since April, the project team has continued to refine the three shortlisted alternatives in greater detail such that a preferred project alternative may be identified and proceed to design and environmental review. At the January 21, 2025 Board meeting Peta-3 was identified as the preferred conveyance project. A new 36" diameter pipeline and pumping plant would be constructed running from North Marin Water District's aqueduct, at or near San Marin Drive, to the District's Lake Nicasio with a future turn out to Soulajule. Those "conveyance" facilities would be operated in the wintertime as needed to replenish 3,800 acre-feet in storage in District reservoirs. Historical data and models find that, even in dry years, there is likely to be substantial "winter water" on the Russian River during storm events; the project would be developed to divert some of the storm water to storage.

The new conveyance facilities would be relatively straightforward to operate and integrate into the District's water system. The initial phase of the project would require about $168M for initial capital costs. While not insignificant, that cost is less than that of other options examined. The project's operating costs would be comprised primarily of water purchase costs, and the cost of electricity for pumping. Those costs would only be incurred when the District operated the pipeline, i.e., in conjunction with storm events in dry years, so the average annual operating cost would be about $3M. While the project will require detailed environmental analysis and regulatory permits, the potential impacts would appear less significant relative to other options considered, and less likely to incur major delays for permitting. Therefore, an implementation time of as few as four years could be achievable.

Meeting the Water Supply Need

Based on the analysis presented in the Strategic Water Supply Assessment and factoring in the reduced level of demand discussed previously, the District is seeking an increase in water supply of approximately 6,500 AFY. In the period since the end of the 2021 drought District demand levels remain approximately 4,000 AFY less than forecasted in SWSA and the typical post drought rebound in demand has not occurred to the extent that it has in the past. Continued lower demand suggests an adjustment to the water supply need determined by SWSA is appropriate. A measured reduction in overall demand of 2,000 AFY would reduce the water supply need established in SWSA, from 8,500 AFY to 6,500 AFY and is supported by the historic demand data while accounting for a very moderate post drought rebound. In addition to water efficiency, projects underway that can provide additional water supply include the Nicasio Spillway modifications (750 AFY), electrification of Soulajule Pump Station (420 AFY), Phoenix to Bon Tempe Connection (260 AFY) and work currently in planning such as the In System improvements (1,000 AFY to 1,500 AFY), are projected to increase the District's supply ranging from an additional 2,400 AFY up to 2900 AFY. Combining these projects with Peta-3, which has a projected supply capacity ranging from between 3800 AFY to 4,750 AFY, will close the 6,500 AFY supply gap identified in SWSA.

SUMMARY

Given the District's ongoing vulnerability to drought, the time to implementation of a project is a critical factor in selecting the preferred project to move into design and environmental review. Projects with longer implementation timeframes tend to be more complex, more costly and bring considerable risks. In the portfolio of remaining options, both desalination and local storage represent complex projects with significant timelines for implementation. The Peta-3 conveyance project is estimated at four years to implement and based on the evaluation of the alternatives presented in Attachment 1, is the District's best immediate option to improve the District's water supply reliability. The evaluation of Peta-3 across nearly every criteria (See Attachment 1) identifies it as superior to all other options available to the District. The Peta-3 project, once complete, may also help to alleviate the risks of enlarging Kent Reservoir, thus providing a basis for further consideration of this attractive option in the future. The Russian River is a robust water source and even in the driest years on record excess streamflow exists during storm events. The ability to phase the Peta-3 project would reduce the initial capital cost, as shown in Attachment 2, and allow the District the adaptively manage the ongoing process of ensuring water supply for Marin Water's customers.

ENVIRONMENTAL REVIEW: Not applicable, as the recommendation is to direct District staff to focus work on the Peta-3 Conveyance Project, which would include design and project level environmental review and permitting to allow staff to bring this project to the Board for consideration of project approval.

FISCAL IMPACT: The next phase of work on the recommended alternative, Peta-3, is to begin designing the facilities to support preparation of documentation for the California Environmental Quality Act (CEQA). Given the large capital cost of the project, the engineering fees will likely be in $15 million to $20 million range for full design and environmental review taking place over an approximately two year period. As discussed at prior board meetings, funding for this work is already in place. Upon selection of the design team, staff will return to the Board with a recommendation for award of one or more professional services agreements for this work.

ATTACHMENT(S):

1. Attachment 1 – Table Summarizing Evaluation of Alternatives
2. Attachment 2 – Economic and Financial Summary of Alternatives

DEPARTMENT OR DIVISION	DIVISION MANAGER	APPROVED
Water Resources	**Paul Sellier** **Water Resources Director**	**Ben Horenstein** **General Manager**

ATTACHMENT 1 – EVALUATION SUMMARY

	Reliability & Sustainability	Flexibility & Resiliency	Schedule & Implementation	Water Quality	Environment	Social Steward ship	Economic & Financial
Desalination 10 MGD	Availability of source water is excellent Provides 10,600 AFY	• Operational flexibility reduced by need to run at all times • System resilience improved • Complexity of operation increased	• Regulatory complexity • Implementation timeframe 5 to 7 years min • Litigation likely	Source water may create public concerns over water quality	• Brine discharge • High energy use (although no GHG impact) • Concerns for impingement and entrainment of aquatic species	Inequity in consumption of water	• High capital costs • High O&M costs • All new infrastructure that needs frequent and costly cyclic replacement • Capital $350 M - $520M
Local Storage Kent	Up to 5 ,000 AFY in scenario drought	• Low complexity • Increases resilience • Increases operational flexibility	• Project implementation > 10 years • Potential constructability concerns, extended construction duration and risk	Provides same water quality as existing reservoirs	Environmental mitigation is possible to offset increased size of reservoir	No impacts to private land	• Capital $519M • Long lifecycle of project would result in low cost of water in long run
Local Storage Soulajule	Up to 5 ,000 AFY in scenario drought	• Low complexity • Increases resilience • Increases operational flexibility	• Project implementation > 10 years • Litigation Likely	Provides same water quality as existing reservoirs.	Environmental mitigation is possible to offset increased size of reservoir	Loss of structures, inundation of farmland used for grazing	• Capital $485M • Long lifecycle of project would result in low cost of water in long run
Conveyance Peta-3	3,800- to 8,100 AFY increase in dry year water supply	• Highly flexible and used only when needed • Could have synergies with future storage projects • Regional benefits	• Could be online in as few as 4 years • Phaseable	Provides same water quality as existing SCWA supply.	Minimal or no long-term impacts	Pipeline must traverse conservation easement but use appears compatible	• Costs may be phased • Capital $168M - $405M • PETA-3 is $168M for initial phase

ATTACHMENT #2 – ECONOMIC & FINANCIAL SUMMARY

		Dry-year yield AFY	Initial capital $M	Avg O&M $M	$/dry-year AF	Notes
Recycled Water Purple Pipe	Sewage Agency of Southern Marin	80	$4.6M	$0.1M	$13,200	
	San Quentin	120	$12.2M	$1.6M	$55,750	
	Peacock Gap	300	$28.5M	--	$7,200	Best of the purple-pipes for economics but requires major capital outlay relative to yield
Recycled Water IPR/DPR	DPR TWA	3,800	$155M	$11.6M	$15,200	High capital costs; high operating costs due to need to operate even in non-dry years. Cyclic replacement of equipment.
	DPR RWA	7,500	$463M	$13.8M	$14,400	
	IPR	7,500	$483M	$18.4M	$16,700	
Desalination	5 MGD	5,300	$352M	$12.2M	$16,300	High capital costs; high operating costs due to need to operate even in non-dry years. Cyclic replacement of equipment.
	10 MGD	10,600	$447M	$20.5M	$11,800	
	15 MGD	16,000	$520M	$28.5M	$10,100	
Local Storage	Kent	5,000	$519M	$0.6M	$7,400	Long asset life and low O&M cost help offset high initial cost. Could be a viable candidate for grant funding.
	Soulajule	5,000	$484M	$1.3M	$7,400	
	Upper Nicasio	5,000	$687M	$0.9M	$9,800	Very high capital outlay.
Conveyance	PETA-3	3,800 phase A 8,100 phase B	$168M $405M	$2.9M $6.5M	$5,950 $6,550	Costs may be phased.
	PETA-4	4,600 phase A 8,100 phase B	$229M $401M	$3.6M $6.9M	$6,500 $6,600	
	COTATI-3	8,100	$372M	$6.6M	$6,250	

MARIN WATER

UPCOMING MEETINGS

This schedule lists upcoming board and committee meetings as well as upcoming agenda items for the next month, which may include Board interest in adding future meeting items. The schedule is tentative and subject to change pending final publication and posting of each meeting agenda.

Internal Meetings		
Meeting Date	**Meeting Type**	**Key Item(s)**
Thursday, Feb. 27, 2025 9:30 a.m.	Finance Committee Meeting	SAP Update, and Budget Kick Off
Thursday, Mar. 4, 2025 5:00 p.m.	Board of Directors' Regular Bi-Monthly Meeting, with Closed Session	
Tuesday, Mar. 18, 2025 6:30 p.m.	Board of Directors' Regular Bi-Monthly Meeting	Connection Fee
Thursday, Mar. 20, 2025 9:30 a.m.	Watershed Committee Meeting/Special Meeting of the Board of Directors	Azalea Hill, and Roads and Trails

External Meetings	
Meeting Date	**Meeting Type**
Friday, Mar. 7, 2025 9:30 a.m.	North Bay Watershed Association
Wednesday, Mar. 19, 2025 3:00 p.m.	Tomales Bay Foundation
Friday, Mar. 21, 2025 9:00 a.m.	Lagunitas Technical Advisory Committee