



# NOTICE OF THE OPERATIONS COMMITTEE MEETING/SPECIAL MEETING OF THE BOARD OF DIRECTORS

Friday, September 20, 2024 at 9:30 AM

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## AGENDA

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### 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 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](mailto: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** (9:40 a.m. – Time Approximate)

- a. Minutes of the Operations Committee Meeting/Special Meeting of the Board of Directors on August 16, 2024

**RECOMMENDATION:** Approve the minutes

- b. Advanced Metering Infrastructure (AMI) Update

**RECOMMENDATION:** Receive staff presentation on AMI update

- c. Water Supply and Demand Analysis

**RECOMMENDATION:** Receive an update on Water Supply and demand trends

5. **Upcoming Meeting**

The next Operations Committee Meeting/Special Meeting of the Board of Directors will take place on Thursday, October 18, 2024 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.

*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](http://marinwater.org).*

Posted: 09-17-2024



# STAFF REPORT

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**Meeting Type:** Operations Committee/Board of Directors  
**Title:** Minutes of the Operations Committee Meeting/Special Meeting of the Board of Directors on August 16, 2024  
**From:** Terrie Gillen, Board Secretary  
**Through:** Ben Horenstein, General Manager  
**Meeting Date:** September 20, 2024

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**TYPE OF ACTION:**    X    Action                      Information                      Review and Refer

**RECOMMENDATION:** Approve the minutes

**SUMMARY:** The Operations Committee/Board of Directors held a meeting on August 16, 2024. The minutes of that meeting are attached.

**DISCUSSION:** None.

**ENVIRONMENTAL REVIEW:** Not applicable.

**FISCAL IMPACT:** None.

**ATTACHMENT(S):**

1. Draft August 16, 2024 Minutes of the Operations Committee Meeting/Special Meeting of the Board of Directors

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



# NOTICE OF THE OPERATIONS COMMITTEE MEETING/SPECIAL MEETING OF THE BOARD OF DIRECTORS

Friday, August 16, 2024 at 9:30 AM

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## MINUTES

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### 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

Matt Samson  
Monty Schmitt  
Larry Russell

#### DIRECTOR ABSENT

Jed Smith  
Ranjiv Khush

#### 2. Adoption of Agenda

A motion was made by Director Schmitt and Seconded by Director Samson to adopt the agenda.

There were no public comments.

Voting Yea: Directors Samson, Schmitt, and Russell

**3. Public Comment on Non-Agenda Matters**

There were no public comments.

**4. Regular Items**

- a. Minutes of the Operations Committee Meeting/Special Meeting of the Board of Directors on July 19, 2024

**RECOMMENDATION:** Approve the minutes

A motion was made by Director Schmitt and seconded by Director Samson to approve the minutes.

There were no public comments.

Voting Yea: Directors Samson, Schmitt, and Russell

- b. Staff Update and Award of Professional Services Agreement with Carollo Engineers for Engineering Design Services in support of the Fairfax Manor 1<sup>st</sup> Pump Station Reconstruction Project

**RECOMMENDATION:** Review a staff update on the Fairfax Manor temporary pump station and Authorize the General Manager to execute a professional services agreement with Carollo Engineers in the amount of \$1,225,058, with a staff requested contingency of \$200,000, for a total not to exceed amount of \$1,425.058, in support of the Fairfax Manor 1<sup>st</sup> Pump Station Reconstruction Project

General Manager Ben Horenstein introduced this item, and Superintendent of System Maintenance and Support Services Ben Bauer and Engineering Construction Manager Mark Kasraie provided a presentation. Staff noted that this is an approval item given the urgency of moving forward with the new permanent pump station.

Discussion ensued.

There were no public comments.

A motion was made by Director Schmitt and seconded by Director Samson to approve authorizing the General Manager to execute the professional services agreement with Carollo Engineers as recommended by staff.

Voting Yea: Directors Samson, Schmitt, and Russell

Absent: Directors Smith and Khush

- c. Review and Refer Two Professional Services Agreements for Geotechnical Engineering, and Field and Laboratory Materials Testing Services

**RECOMMENDATION:** Review and refer to a future regularly scheduled Board meeting the award of two professional services agreements with separate consultants for on-call “as-needed” geotechnical engineering and field and laboratory materials testing services, with each contract in an amount not to exceed \$500,000

Engineering Construction Manager Kasraie also presented this item.

Discussion followed

There were no public comments.

A motion was made by Director Samson and seconded by Director Schmitt to refer this item to the Board to consider for approval at a future meeting.

- d. Water Supply Roadmap Update on Cost of Conveyance to Storage

**RECOMMENDATION:** Receive staff presentation on cost of conveyance of winter water to a District reservoir

Director Schmitt recused himself from this item and left the Board Room.

Water Resources Director Paul Sellier presented this item. There was much discussion throughout the presentation.

There were five (5) public comments.

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

## 5. Upcoming Meeting

Chair Russell announced that the next Operations Committee Meeting/Special Meeting of the Board of Directors was scheduled for Friday, September 20, 2024 at 9:30 a.m.

## 6. Adjournment

There being no further business, the Operations Committee Meeting/Special Meeting of the Board of Directors was adjourned on August 16, 2024 at 10:51 a.m.

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Board Secretary



# STAFF REPORT

**Meeting Type:** Operations Committee/Board of Directors  
**Title:** Advanced Metering Infrastructure (AMI) Update  
**From:** Paul Sellier, Director of Water Resources  
**Through:** Ben Horenstein, General Manager  
**Meeting Date:** September 20, 2024

**TYPE OF ACTION:**                      Action                      X                      Information                      Review and Refer

**RECOMMENDATION:** Receive staff presentation on AMI update

**SUMMARY:** Staff will present on Advanced Metering Infrastructure (AMI) at Marin Water including an overview of AMI technology, key considerations, AMI pilots and equipment/portal testing, project schedule and next steps.

**DISCUSSION:** AMI has been a relatively recent upgrade for the municipal industry and has seen increased levels of adoption in the past 10 years. The District is currently preparing for full AMI deployment targeting completion by 2030. Since 2018, the District has leveraged grant funding from the Department of Water Resources (DWR) and Integrated Regional Water Management Plan (IRWMP) to install over 5,500 Orion cellular endpoints on replaced or retrofitted meters, which has provided the District with experience in working with AMI. Staff is currently preparing for full deployment of AMI and working closely with internal stakeholders, other utilities and vendors to understand several key considerations of implementing AMI such as:

- Meter Technology:** type, material, register design and battery life
- Data Collection:** communication type (radio, cell, hybrid), read frequency, privacy & data security, leak detection (both on consumer and District side), pressure, temperature and backflow monitoring
- Customer Interface:** direct from vendor, custom 3<sup>rd</sup> party, stand alone and/or integrated into billing
- Additional Considerations:** Integration into SAP upgrade, updating business processes and policies, RFP type, deployment approach (contractor installation, schedule, retrofit vs replacement), communications plan, potential need for external resources

**Pilots and equipment/portal testing:**  
 As part of the planning process, staff has been using both pilots and equipment/portal testing to learn as much as possible about several potential AMI vendors. The pilots and testing are designed to help identify the various features and functionality that each vendor offers as well as understand the potential for water savings. The largest pilot currently underway is with Badger, a major supplier of

meters and AMI equipment, where over 5,500 cellular endpoints have been deployed. The main goals of the pilot are leak detection, customer engagement with the portal and ways to increase it, learning from opt-outs and improved efficiencies in customer support and meter reading.

Staff monitors various aspects of the pilot installations including communication health, battery life, tamper alarms and customer leaks. Communication health, which is a measure of how many endpoints have successfully transmitted data in the past 72 hours, is consistently over 99%. The endpoint warranty is 20 years, yet there has been a failure rate of 1-2% each year. Failed endpoints are shipped back to Badger and replacements are provided to the District. The industry average for failure is less than 1% per year and Badger has assured Staff that their current endpoint version is more reliable.

Staff has also learned from the Badger pilot that it can be challenging to get customers to sign up for the customer facing portal that is separate from District services. Badger’s customer portal, EyeOnWater, requires creating a separate account to receive leak notifications. Currently 45% of AMI customers have created an EyeOnWater account. Although this level of participation is above the industry average, other agencies using single sign on type customer portals where District services and water use information are available report higher participation resulting in more customers actively managing their water use. The District’s efforts to increase participation through EyeOnWater continue and include letters, door hangers, phone calls and emails.

The Badger pilot has provided data on water savings through early leak detection. Since 2018, over 8,000 leak and high use letters have been sent out and over 1,200 leaks received additional efforts 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.

Installation of AMI on residential accounts also seems to illustrate a potential for water savings beyond early leak detection. A recent analysis of data from the Badger Pilot compared all single-family users in the District to a sub-group of 3,759 services that were upgraded to AMI during 2018-2022. Although all single-family services across the District experienced a reduction in water use when comparing 2017 to 2023, the 3,759 AMI single-family services experienced an additional 3.39% reduction in use. A separate analysis compared two-meter reading routes in Corte Madera that border each other. One of the routes was upgraded to AMI in 2020 and the other was not. When comparing 2017 water use to 2023, the AMI route experienced an additional 7.25% reduction in use. Although this is a relatively small sample size of 453 total meters, it still indicates that AMI customers used less water. While these two example comparisons indicate lower water use for AMI customers, staff is continuing to analyze the data in different ways to understand the potential for water savings associated with AMI

Other pilots are underway in the District including a high water user pilot where in early 2024, 300 Badger cellular endpoints were installed on high water use single-family residential customer meters. Although it is too early to provide water savings or water use pattern data yet, Staff will be analyzing the pre/post AMI data for these users. Additionally, equipment/portal testing include the following vendors: Metron, Itron, Subeca and Kamstrup. All of these vendors will be evaluated on equipment design, quality, and communication as well as the District and customer portal experience and features.



**Project Schedule & Next Steps:**

Staff will develop an implementation plan targeting full deployment of AMI by end of 2030 with the first phase of AMI units scheduled for installation in July 2026.

**ENVIRONMENTAL REVIEW:** Not Applicable.

**FISCAL IMPACT:** None

**ATTACHMENT(S):** None.



# STAFF REPORT

**Meeting Type:** Operations Committee/Board of Directors  
**Title:** Water Supply and Demand Analysis  
**From:** Paul Sellier, Director of Water Resources *PS*  
**Through:** Ben Horenstein, General Manager *BH*  
**Meeting Date:** September 20, 2024

**TYPE OF ACTION:**                      Action                      X                      Information                      Review and Refer

**RECOMMENDATION:** Receive an update on Water Supply and demand trends

**SUMMARY:** Staff will provide an update on water supply conditions and review demand trends.

**DISCUSSION:** Reservoir water storage levels are at 120% of normal for this date and at 84% of total capacity. The District continues to encourage customers to use water wisely and anticipates adequate supplies to meet both potable demand and environmental releases over the next year. At this meeting, staff will also provide an update on recent system demand trends.

**ENVIRONMENTAL REVIEW:** Not Applicable.

**FISCAL IMPACT:** None.

**ATTACHMENT(S):** None.