Operations Committee Meeting
Thursday, January 22, 2025 at 1:00PM

VIRTUAL

Operations Committee Meeting Summary

A. Roll Call Attendance

A commencing roll call voted as follows:

Name	Community	Vote
Michael Rademacher	Arlington	Here (virtual)
Elena Proakis Ellis	Melrose	*Not present*
Richard Raiche	Somerville	Here (virtual)
Sam Stivers	Southborough	Here (virtual)

Also in attendance:
Lou Taverna, Matthew Romero, Christine Bennett, Nathan Coté, Keira Kishnani, Rebecca Weidman, Steve Estes-Smargiassi, Colleen Rizzi, Ethan Wenger,

B. Presentation- 8M Permitting- Rebecca Weidman, Deputy Chief Operating Officer, MWRA

Mr. Rademacher introduced Ms. Rebecca Weidman to present on MWRA's 8M permitting process. As Mr. Romero assisted with screen sharing, he noted that this presentation was prompted in part by the Dorchester Tunnel incident, which raised concerns about uncoordinated excavation near critical infrastructure.

Ms. Weidman opened by explaining the legal foundation of the 8M permitting process, which grants MWRA authority to issue construction permits for any activity on or near MWRA property or infrastructure—including within easements. These permits are required of developers, municipalities, homeowners, or any entity undertaking such work. The purpose of the program is to protect MWRA assets from damage, ranging from minor disturbances (such as to thrust blocks) to significant incidents like the Dorchester Tunnel puncture, which involved boreholes up to 400 feet deep from geothermal drilling.

She emphasized that certain projects—such as residential demolitions—may not appear to impact MWRA infrastructure but often do, particularly when located above roadways housing MWRA pipes. As such, she encouraged all member communities and external stakeholders to contact MWRA when in doubt. Contact information for both water and wastewater permit staff (Ralph Francesconi and Kevin McKenna) is posted on the MWRA website, along with the permit application itself, accessible through the "MWRA Permits" link on the homepage.

Ms. Weidman also discussed outreach efforts. A flyer explaining the 8M permitting process was distributed to all municipal contacts and will be posted on the MWRA website again shortly. She asked for the Committee's help identifying local permitting authorities in each community—such as Boards of Health, Building Departments, and those overseeing geothermal well approvals—so MWRA can provide them with proper guidance.

A question from a Committee member asked why the outreach was occurring now. Ms. Weidman explained that increased turnover among municipal personnel and the recent Dorchester Tunnel incident prompted a renewed push to raise awareness. She added that MWRA intends to conduct outreach more regularly moving forward. Mr. Rademacher asked about coordination with utility companies. Ms. Weidman replied that MWRA has working relationships with Eversource, National Grid, Verizon, and others, and those entities generally notify MWRA during emergency work—even if formal permits come afterward.

When asked whether MWRA participates in Dig Safe, Ms. Weidman clarified that MWRA is only part of Dig Safe in three communities—Brookline, Saugus, and Chelsea—and only for water infrastructure. She noted that this limited participation is due to the high administrative burden and costs associated with full integration, but MWRA is revisiting the issue.

Mr. Stivers shared a local example from Southborough, where staff had been unaware of MWRA infrastructure and assumed Dig Safe was sufficient. He recommended that Boards of Health and Building Departments be included in MWRA's outreach, as their roles in geothermal and well permitting are often overlooked.

Mr. Romero noted that Advisory Board staff could assist by developing a poll to gather contact information for local permitting authorities across the MWRA service

area. He suggested testing the questions with a few experienced communities to ensure the form captures the right contacts. He also indicated that follow-up calls would likely be needed, much like the recent Rate Survey effort.

Ms. Weidman closed by reiterating that MWRA welcomes any communication about upcoming work near its infrastructure and encouraged over-communication rather than under-reporting. She noted that MWRA has GIS tools to verify permit needs quickly and that staff frequently investigate unpermitted work based on visual observations or tips.

There was no vote required on this item. Mr. Romero suggested a future presentation at a full Advisory Board meeting to further spread awareness, possibly supplemented by MWRA's longer version of the 8M presentation with field examples. Ms. Weidman confirmed she would be happy to present again, and MWRA staff will coordinate with Advisory Board staff in the coming weeks.

C. **Presentation- Wastewater Expansion Update- Colleen Rizzi, Director, Environmental and Regulatory Affairs, MWRA**

Mr. Rademacher introduced Ms. Colleen Rizzi, who presented an update on MWRA's approach to managing new wastewater connections and the current challenges facing the system. Mr. Romero added that, similar to the previous presentation, MWRA was seeking the Operations Committee's assistance in helping communicate key messages to member communities.

Ms. Rizzi began by outlining MWRA's two core policies that govern wastewater connections: OP4, covering properties that straddle MWRA service area boundaries, and OP11, which applies to requests from communities or developments located entirely outside the service area. Each policy includes an evaluation process that considers flow volumes and system impacts.

She noted that over the past three to four months, MWRA has seen a notable uptick in wastewater connection requests—listing examples such as a proposed assisted living facility in Sharon, a potential new connection for the Town of Hull, and a large-scale redevelopment of the South Weymouth Naval Air Station (Union Point), which is expected to generate over 600,000 gallons per day. While some of these projects originate from within current member communities, their size and timing raise concerns about cumulative system impact.

Ms. Rizzi explained that MWRA's primary concern stems from system capacity

limitations during wet weather events. Climate change is exacerbating the problem through more frequent and intense rainfall, which increases infiltration and inflow (I&I) and reduces capacity for new sanitary flows. Regulatory changes may also impose stricter treatment requirements, further constraining the system. While I&I removal can help mitigate impacts, she emphasized that such work must be completed before new flows are introduced.

The Advisory Board was asked to assist in reinforcing MWRA's message about capacity limitations and the importance of early coordination. Specifically, MWRA urged communities to:

1. Alert MWRA early when new developments outside of the service area are proposed.
2. Direct prospective new communities to MWRA staff promptly to avoid confusion or delays.
3. Flag large-scale redevelopment projects within member communities that could significantly increase flows.

Ms. Rizzi clarified that MWRA is not trying to restrict development, but rather to manage capacity responsibly and transparently. While many projects are captured through MEPA review, some are not, making local communication essential. As a next step, MWRA is formalizing criteria to assess new connection requests and is working with the Advisory Board to align messaging and expectations.

She also previewed an upcoming spring workshop, organized by MWRA's community program team in collaboration with the Advisory Board, that will focus on private inflow removal. The workshop will include case studies and explore funding options through MWRA's I&I Local Financial Assistance Program. Communities from both the water and wastewater sides are encouraged to attend and participate.

In discussion, Mr. Stivers asked what portion of total MWRA wastewater flow comes from I&I. Mr. Estes-Smargiassi replied that approximately half of the total flow is attributed to I&I, citing the annual I&I report and noting that while the system is performing better over time, legacy infrastructure and groundwater intrusion remain persistent challenges.

Ms. Herman asked for guidance on how communities should determine whether a project warrants MWRA consultation. Ms. Rizzi responded that for new connections outside the service area, MWRA involvement is required under existing policy. Within member communities, a good general threshold is a proposed increase of more than

15,000 gallons per day—a DEP trigger for I&I mitigation. For larger or borderline cases, she encouraged communities to reach out directly for case-by-case guidance.

There were no further questions, and no vote was required on this informational item.

D. **Presentation- Wastewater Metering Update- Ethan Wenger, Director of SCADA, Metering and Monitoring, MWRA**

Mr. Rademacher introduced Mr. Ethan Wenger, who provided an in-depth presentation on MWRA's wastewater metering system and the results of the 2021 metering upgrade project. Mr. Wenger, joined by Tim Ballew, began by noting that Michael Greeley, MWRA's former Manager of Metering, had recently departed. He advised communities with metering questions to now contact either himself or Mr. Ballew.

In 2021, MWRA installed 173 new wastewater meters across the system as part of a major construction project. Because that year was dedicated to installation and calibration, MWRA substituted billing data with an average of the three prior years. The project affected the entire wastewater service area and laid the foundation for more accurate and reliable flow monitoring moving forward.

Mr. Wenger explained that wastewater billing differs from water billing. Water usage is straightforward to measure, as it occurs in closed, pressurized pipes, and is assessed directly for billing two years later. Wastewater, on the other hand, flows in open channels, making measurement more complicated. To accommodate this variability, MWRA's wastewater assessments are based approximately 50 percent on measured flow and 50 percent on population. This dual structure ensures that billing remains stable, even in years when flow data may be anomalously high due to weather-related infiltration or other temporary factors.

The 2021 project also included updates to the formulas used to estimate flow in unmetered areas. In communities where there are numerous small pipes that cannot feasibly be individually metered, MWRA uses engineering-based calculations to estimate flow. These formulas were reviewed and adjusted to reflect recent development and infrastructure changes.

Following the project, some communities experienced modest changes in their flow share. While a few saw noticeable increases or decreases, many remained relatively stable. Mr. Wenger emphasized that year-to-year variation in wastewater data is

normal and heavily influenced by wet weather and infiltration and inflow (I&I), which can fluctuate significantly.

He then described how wastewater flow is physically measured. Using ADS Triton meters, MWRA simultaneously records the depth and velocity of wastewater in pipes. Depth is generally easy to measure, but velocity is more complex due to pipe shape, turbulence, and site-specific flow dynamics. MWRA calibrates velocity estimates through regular field checks to ensure that its calculations remain accurate. In addition, the presence of silt buildup in large pipes is monitored, as even several inches of sediment can distort flow readings.

The metering data is transmitted back to MWRA using TELOG data loggers, which include built-in wireless modems. These devices collect and send data to MWRA's business network, where it can be analyzed. Mr. Wenger clarified that this is not part of MWRA's SCADA system, but rather a separate telemetry system designed solely for data transmission.

The 2021 upgrade significantly improved MWRA's data quality. Prior to the project, the percentage of valid data occasionally dipped below the agency's 95 percent target, particularly during the COVID-19 lockdown period when MWRA was unable to replace meter batteries. Since the upgrade, MWRA has consistently exceeded the 95 percent mark, thanks to new equipment, better maintenance, and improved battery monitoring. Mr. Wenger highlighted the enhanced user interface provided by TELOG's new web tool, which gives staff more intuitive dashboards and GIS-integrated visualizations—making it easier to manage and monitor the metering system across the service area.

During discussion, Mr. Rademacher asked whether any communities had pushed back on the results. Mr. Wenger responded that some communities had questions after observing an increase in their share of flow, but MWRA met with them to explain the changes. He said that while "satisfied" might be too strong a word, most communities understood MWRA's methodology and rationale. Mr. Estes-Smargiassi added that MWRA had proactively reached out to the five communities that saw the largest increases or decreases to review their data and answer any questions. In several cases, especially in unmetered areas, the changes were clearly tied to new development. For example, communities confirmed the construction of large apartment buildings in areas that had previously been lightly developed.

Mr. Estes-Smargiassi noted that changes in flow due to development or pipe reconfiguration in unmetered zones are particularly important and encouraged communities to notify MWRA of any significant changes. He also offered to provide updated metering maps showing the location of all meters and tributary areas, which can be useful for planning and I&I analysis.

Mr. Taverna asked about meter accuracy. Mr. Wenger acknowledged that wastewater meters are less precise than water meters, which typically have accuracy within 1–2 percent. In wastewater systems, optimal conditions may yield accuracy within 5 percent, but turbulent flow or unusual pipe configurations can increase variability. Mr. Ballew added that all meters installed as part of the 2021 upgrade were required to meet MWRA's technical performance standards and represent the best available technology.

Mr. Romero asked about meter lifespan and future replacement strategy. Mr. Wenger estimated that meters generally last 10 to 20 years, depending on conditions. He said MWRA hopes to avoid another large capital project by replacing meters in phases through the Current Expense Budget. The success of this phased approach will be evaluated over the next several years.

The presentation concluded without further questions. No vote was required.

E. Approval of the minutes from July 1, 2024 (postponed)

Approval of the minutes was postponed.

F. New Business

Mr. Romero announced a public meeting on MWRA's Long-Term CSO Control Plan, scheduled for that evening at 6:00 PM, jointly hosted by MWRA, Somerville, and Cambridge. He encouraged committee members or their staff to attend and voice community and ratepayer perspectives, noting that prior meetings had seen limited input from municipal stakeholders compared to advocacy groups. A registration link was shared in the Zoom chat, and staff were asked to add the event to the Advisory Board calendar for broader visibility.

G. Adjournment

A motion to adjourn was put forward. It was moved by Michael Rademacher, and seconded by Sam Stivers. The following roll call to adjourn was as follows:

Name	Community	Vote
Michael Rademacher	Arlington	Yes (virtual)
Elena Proakis Ellis	Melrose	*Not present*
Richard Raiche	Somerville	*Not present*
Sam Stivers	Southborough	Yes (virtual)

Respectfully submitted,

Michael Rademacher, Chair

These minutes reflect the discussion of the meeting. The Advisory Board maintains audio recordings of Executive Committee meetings that are available upon request.