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MASSACHUSETTS WATER RESOURCES AUTHORITY
Deer Island
33 Tafts Avenue
Boston, MA 02128

Frederick A. Laskey
Executive Director
Chair: R. Tepper
Vice-Chair: A. Pappastergion
Secretary: B. Peña
Board Members:
P. Flanagan
J. Foti
B. Swett
L. Taverna
H. Vitale
J. Walsh
P. Walsh
J. Wolowicz

Telephone: (617) 242-6000
Fax: (617) 788-4899
TTY: (617) 788-4971

BOARD OF DIRECTORS' MEETING

Date: Wednesday, November 13, 2024

Time: 1:00pm

Location: MWRA Administration Facility, Conference Rooms 2C and 2Dd
2 Griffin Way, Chelsea, MA 02150
A photo ID will be required for entry.
The meeting will also be available via Webex. The Webex link, event number and password to attend virtually are below:

Webex meeting link (registration required)

https://mwra.webex.com/weblink/register/r1a3fd31041454eb3e6faee14b47f548c

Event number: 2337 439 3182 Password: 111324

REVISED AGENDA

I. APPROVAL OF MINUTES

II. REPORT OF THE CHAIR

III. REPORT OF THE EXECUTIVE DIRECTOR

IV. ADMINISTRATION, FINANCE AND AUDIT

A. Information

1. Delegated Authority Report – October 2024
2. FY25 First Quarter Orange Notebook
3. Internal Audit Update FY24
4. FY25 Financial Update and Summary through October 2024

B. Approvals

1. Approval of Matthew R. Horan, Fore River Railroad Corporation Proxy

C. Contract Amendments/Change Orders

1. Dental Insurance: Delta Dental of Massachusetts, Inc., d/b/a Delta Dental of Massachusetts, Contract A631, Amendment 3

V. WASTEWATER POLICY & OVERSIGHT

A. Contract Awards

1. Three-Year Contract for the Supply, Delivery, and Disposal of Regenerated Activated Carbon, Carbon Activated Corporation, Bid WRA-5496, Event 5994

VI. WATER POLICY & OVERSIGHT

A. Information

1. Update on Lead and Copper Rule Compliance – Fall 2024 and Rules Changes
2. Watershed Land Acquisition Program
3. Community Water Interconnections

B. Approvals

1. Revised MWRA Operating Policy OP.05 Emergency Water Supply Withdrawals

VII. PERSONNEL & COMPENSATION

A. Approvals

1. November 2024 PCR Amendments
2. FY25 and Non-Union Compensation and Amendment of Employment Contract of the Director of the Tunnel Redundancy Program

VIII. CORRESPONDENCE TO THE BOARD

IX. OTHER BUSINESS

X. ADJOURNMENT

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the Board of Directors

October 23, 2024

A meeting of the Massachusetts Water Resources Authority ("MWRA") Board of Directors was held on October 23, 2024 at the Quabbin Visitor Center in Belchertown, and via remote participation.

Chair Tepper presided remotely. Board Members Flanagan, Swett, Patrick Walsh, and Vitale also participated remotely. Board Members Peña, Taverna, Jack Walsh and Wolowicz participated at the Quabbin Visitor Center. Board Members Foti and Pappastergion were absent.

MWRA Executive Director Frederick Laskey; General Counsel Carolyn Francisco Murphy; Chief Operating Officer David Coppes; Deputy Chief Operating Officer Rebecca Weidman; Director of Finance Thomas Durkin; Director of Administration Michele Gillen; Deputy Waterworks Director Lisa Bina; Director of Tunnel Redundancy Kathleen Murtagh; Construction Director Martin McGowan; ENQUAL Director David Wu; Chief Engineer Brian Kubaska; Finance Director Thomas Durkin; Deputy Finance Director/Treasurer Matthew Horan; Human Resources Director Wendy Chu; Asset Management Analyst Michael Curtis; Chief of Staff Katie Ronan; Associate General Counsels Angela Atchue and Kristen Schuler Scammon; and, Assistant Secretary Kristin MacDougall attended at the Quabbin Visitor Center.

Matt Romero, MWRA Advisory Board, also attended at the Quabbin Visitor Center.

MWRA Acting Special Assistant for Affirmative Action Tomeka Cribb; TRAC Director Matthew Dam; and Energy Manager Kristen Patneaude attended remotely.

Vandana Rao, EEA, also attended remotely.

Chair Tepper called the meeting to order at 1:01pm.

ROLL CALL

MWRA General Counsel Francisco Murphy took roll call of Board Members in attendance and announced that Chair Tepper and Board Members Flanagan, Swett, Patrick Walsh, and Vitale were participating remotely. The Chair announced that the meeting was being held at the Quabbin Visitor Center and virtually, via a link posted on MWRA's website. She added that the meeting would be recorded, and that the agenda and meeting materials were available on MWRA's website.

APPROVAL OF SEPTEMBER 11, 2024 MINUTES

A motion was duly made and seconded to approve the minutes of the Board of Directors'

meeting of September 11, 2024.

Chair Tepper asked if there was any discussion or questions from the Board. Hearing none, she requested a roll call vote in which the members were recorded as follows:

Yes	No	Abstain
Tepper		
Flanagan		
Peña		
Swett		
Taverna		
Vitale		
J. Walsh		
P. Walsh		
Wolowicz		

(ref. I)

REPORT OF THE CHAIR

Chair Tepper invited Board Member Wolowicz to say a few words. Ms. Wolowicz, the Board's Connecticut River Basin representative, thanked Board members and staff for attending this meeting at the Quabbin Visitor Center. She shared her family's personal connection to the Quabbin reservoir, and thanked MWRA Executive Director Fred Laskey for his kindness. She also briefly discussed some houses that were moved to the Town of Monson to construct the reservoir. (ref. II)

REPORT OF THE EXECUTIVE DIRECTOR

Mr. Laskey acknowledged Ms. Wolowicz' parents for often offering helpful feedback on the Quabbin Visitor Center's facilities, and thanked DCR staff for their contributions to this Board meeting and preceding morning boat tour.

He then discussed developments related to system expansion. He reported that staff attended a meeting whereat Lieutenant Governor Driscoll, Speaker Mariano, and other officials discussed the topic of a new development in Weymouth, and that conversations with legislators about expansion studies for Western Quabbin Watershed communities are ongoing.

Next, Mr. Laskey noted that the MWRA Advisory Board would host a Lead and Copper Workshop for communities on October 24, 2024. He added that MWRA staff are awaiting the latest round of lead and copper testing results, and advised that some results may potentially trigger required community notifications.

Mr. Laskey then reported that MWRA is topping off fuel reserves for the Deer Island Treatment

Plant ("DITP") in anticipation of winter. Next, he reminded Board Members to acknowledge receipt of the Conflict of Interest Law Summary forwarded by MWRA's General Counsel. He then briefly mentioned that he is scheduled to give a keynote address for the Clinton Area Chamber of Commerce.

Finally, Mr. Laskey invited staff to present on the October 9, 2024 Dorchester Tunnel incident ("tunnel incident") and response, and noted that additional discussion on the matter would take place during Executive Session.

Board Member Taverna requested an update on the status of the Water System Expansion Study for the Quabbin area. Mr. Laskey reported that the study is ongoing, and that staff are planning a public meeting for residents, legislators and other interested parties. MWRA Deputy Chief Operating Officer Rebecca Weidman added that staff are working toward completing the Quabbin Study report near the end of 2025, pending the public meeting schedule.

Dorchester Tunnel Incident and Response

Chair Tepper commended MWRA staff for their response to the tunnel incident and noted her and Governor Healey's appreciation for the response team's excellent communications; effective actions; planning; and, interagency cooperation.

On behalf of MWRA staff, Mr. Laskey thanked Chair Tepper and the Board of Directors for their support and encouragement. Board Member Taverna agreed with Chair Tepper, and noted that he had visited the incident site.

David Coppes, MWRA Chief Operating Officer, provided a summary of the initial stage of the incident, explaining that at 3:35 pm on October 9, 2024, MWRA's Chelsea Operations Control Center received a call that a contractor had drilled into MWRA's Dorchester Tunnel, in Brookline, just southeast of the Chestnut Hill reservoir, and that the contractor was installing 6" diameter holes into rock in the backyard of a residence to install a geothermal heat system. He presented the locations of the drill site and drill rig. Mr. Coppes noted the immediate dispatching of MWRA staff to the site to assess the situation, where they met Brookline DPW staff.

He presented a map of the Dorchester Tunnel's location and service area, and explained that the Dorchester Tunnel is the primary supply for MWRA's Southern High and Southern Extra High water service area. Mr. Coppes noted that the Dorchester Tunnel is a deep rock, concrete-lined tunnel, located approximately 250 feet underground in the location where the drilling occurred and is part of MWRA's Metropolitan Water Tunnel system. He added that over 600,000 people would be affected if the Dorchester Tunnel had to be shut down in short order.

Next, Mr. Coppes summarized MWRA's process for assembling response teams in the

Emergency Operations Center ("EOC") and in the field, and the roles of the team members. He noted the good fortune of having Tunnel Redundancy Program staff available to assist in the EOC and at the site. He also listed some of the key stakeholders that MWRA notified about the incident, including EEA, DEP, MEMA and all affected communities.

He then discussed the tunnel incident's site conditions at the start of the response, and immediate measures taken to secure the site.

Mr. Coppes next provided some background on MWRA's existing emergency response plans and ongoing staff trainings that were put into action during this incident. He presented a photo of MWRA's Chestnut Hill emergency pump station and described its features and functions. He explained that this pump station requires high pressure to operate, and that it can draw water from either the Boston Low Service area or open the Chestnut Hill reservoir. He noted that MWRA's response team sought to avoid pumping water from the Chestnut Hill reservoir because that would require a boil water order; however, staff made preparations in case the emergency reservoir needed to be activated.

Next, Lisa Bina, MWRA Deputy Waterworks Director and the incident commander for this response, presented an overview of how MWRA operated the water system and maintained supply during the incident. She began with an overview of staff's implementation of a response plan to isolate the Dorchester Tunnel and activate the Chestnut Hill emergency pump station. She noted that staff's primary goal at this point was to continue the delivery of treated water supplies to the affected area by rerouting to the pump station, and by shifting flows through surface mains to MWRA's Blue Hills Covered Storage Tank in Quincy. She reported that these efforts were successful and presented a map of the new system configuration.

Ms. Bina then discussed the next step in the response - isolating four shafts of the Dorchester Tunnel. She described the sequence of this operation, and actions taken to maintain flows as long as possible before starting up the Chestnut Hill Pump Station. She presented photos of staff working under challenging conditions to manually operate valves within the station's confined spaces. She noted that MWRA's valve crews operated 27 valves at various locations across the Southern System, and presented a map of those sites. She discussed the function and importance of the Dorchester Tunnel's Shaft 7, described how it was successfully isolated by staff, and presented photos of its valves.

Ms. Bina next summarized staff's efforts to simultaneously activate the Chestnut Hill Pump Station and isolate the southern end of the Dorchester Tunnel, stopping its flows. She described some challenges that staff successfully managed, such as controlling system water pressure while avoiding pressure swings, and quickly addressing a leaking isolation valve in order to allow full access to the Dorchester Tunnel drill site.

Next, Kathleen Murtagh, MWRA Director of Tunnel Redundancy, presented an overview of the Dorchester Tunnel repair. She discussed the steps taken to assess the conditions of the tunnel, bore holes, and liner, and to develop a plan for repair. She presented a cross-section diagram of the tunnel and bore #2, and discussed staff's initial strategy for making full and secure repairs from above by sealing the bottom of the bore hole with a packer then filling it with cement grout. She described the conditions observed at the drill site.

Ms. Murtagh discussed geophysical investigations performed in consultation with Hager-Richter Geoscience, and presented photos of the investigators and the test results, which confirmed MWRA staff's initial assessment of the Dorchester Tunnel's conditions. Ms. Murtagh noted that the conditions were favorable for setting a packer and achieving a good seal; however, the investigation also revealed some conditions that could have potentially made lowering equipment into the bore hole difficult and caused delays. She highlighted two additional contracting firms that were contacted and provided rapid, essential support for the repairs, including The Keller Group, which set up its own response team, sourced equipment and provided logistical assistance; and New England Boring Contractors, which supplied a packer, drill rig, and a driller.

Ms. Murtagh presented photos of the site, which MWRA crews prepared and made safe for efficient work. She then discussed the tunnel repair including timeline, equipment, materials, planning, packer installation, grouting and testing and presented photos of the repair team as they performed their work.

Next, Ms. Bina described the process of reactivating the Dorchester Tunnel, including monitoring, staffing the Chestnut Hill Pump Station, and maintaining water system pressure at safe levels to avoid pipe breaks. She also described some operational challenges with respect to maintaining levels at the Blue Hills water storage tank. Finally, Ms. Bina presented a timeline of the incident and highlighted key points of the timely and successful response.

Mr. Taverna asked if the geothermal drilling contractor had extracted any rock that staff could use for reference. Ms. Murtagh explained that geothermal drilling does not produce rock core. There was brief, general discussion about the benefits of geophysical imaging.

There was brief, general discussion with questions and answers about challenging aspects of the Dorchester Tunnel shutdown.

In response to a question from Board Member Peña, Ms. Murtagh explained that a patch was installed approximately 10 feet above the tunnel's crown. She noted that this affected portion of the Dorchester Tunnel is embedded in solid rock, and was constructed using drill and blast. There was brief, general discussion about the tunnel's design and the geophysical investigation.

Mr. Coppes noted that staff are incorporating the tunnel's post-repair specifications into MWRA's Master Plan.

Mr. Taverna asked if the packer remained pressurized. Ms. Murtagh responded in the negative. Mr. Taverna asked if the grout is set. Ms. Murtagh responded in the affirmative. There was brief, general discussion about the grout curing and testing process, and the status of the packer.

On behalf of the City of Boston, Board Member Swett thanked MWRA staff for their exemplary performance and communications during the emergency response, and briefly described the City's preparations in case there had been a boil water order. He then asked if staff had identified any lessons learned that could be applied to potential future tunnel disruptions. Mr. Coppes explained that staff have scheduled a debriefing session to discuss the incident response, and that more information about lessons learned will be shared at a later date. He noted that MWRA is also planning to conduct additional rounds of emergency response training for staff, including newer employees.

There was general discussion about the coordination of geothermal drilling near MWRA facilities. Mr. Laskey advised that staff are reviewing this issue for future discussion. There was also general discussion about the uses of packers within the construction industry, and the importance of packers to the Dorchester Tunnel incident response, during which Mr. Laskey praised MWRA staff's ability to quickly identify and procure the appropriate equipment and supplies.

Board Member Jack Walsh requested more information about peak water pressures during the incident and response. Ms. Bina explained that it was approximately 164 PSI. Ms. Murtagh noted that staff are comfortable with the repaired tunnel's ability to withstand water system pressure.

There was brief, general discussion about the use of nitrogen for tunnel repair.

On behalf of Mayor Wu, Board Member Vitale expressed appreciation and gratitude to Secretary Tepper and MWRA staff. He thanked Mr. Laskey and staff for keeping Boston Water and Sewer Commission ("BWSC") staff informed throughout the incident, and remarked on staff's good work and expertise. He noted that BWSC had experienced three water main breaks during the early phase of the tunnel incident, and thanked staff for their assistance and support.

Ms. Wolowicz noted that the staff's response exemplifies the benefits of teamwork and comradery. Mr. Vitale agreed, noting that staff had also performed well during MWRA's 2010 boil water order. Chair Tepper added that the 2010 boil water order case study was useful to

state and local communications teams as they prepared for a potential boil order during the tunnel incident. Finally, Chair Tepper noted that all of the communications teams worked well together. (ref. III)

EXECUTIVE SESSION

Chair Tepper requested that the Board move into Executive Session to discuss Real Estate and Litigation, since discussing such in Open Session could have a detrimental effect on the negotiating and litigating positions of the Authority. She announced that the planned topics for Executive Session were watershed land acquisition, Metropolitan Tunnel Redundancy land acquisition, and strategy with respect to litigation, and that the Board would return to Open Session after the conclusion of Executive Session.

A motion was duly made and seconded to enter Executive Session for these purposes, and to resume Open Session after Executive Session adjournment.

General Counsel Francisco Murphy reminded Board members that under the Open Meeting Law members who were participating remotely in Executive Session must state that no other person is present or able to hear the discussion at their remote location. A response of "yes" to the Roll Call to enter Executive Session when their name was called would also be deemed their statement that no other person was present or able to hear the Executive Session discussion.

Upon a motion duly made and seconded, a roll call vote was taken in which the members were recorded as follows:

Yes	No	Abstain
Tepper		
Flanagan		
Peña		
Swett		
Taverna		
Vitale		
J. Walsh		
P. Walsh		
Wolowicz		

Voted: to enter Executive Session, and to resume Open Session after Executive Session adjournment.

*** EXECUTIVE SESSION ***

The meeting entered Executive Session at 2:00pm and adjourned at 2:58pm.

*** CONTINUATION OF OPEN SESSION ***

WATER POLICY AND OVERSIGHT

Contract Awards

Metropolitan Water Tunnel Program Final Design Engineering Services: WSP USA Inc., Contract 7556

A motion was duly made and seconded to approve the recommendation of the Consultant Selection Committee to award Contract 7556, Metropolitan Water Tunnel Program Final Design Engineering Services, to WSP USA Inc. and to authorize the Executive Director, on behalf of the Authority, to execute said contract in an amount not to exceed $93,605,158 for a contract term of 180 months from the Notice to Proceed.

Kathleen Murtagh, MWRA Director of Tunnel Redundancy, presented updated information in support of a proposed award for Contract 7556, Final Design Engineering Services for the Metropolitan Water Tunnel Program (MWTP), with WSP USA, Inc. ("WSP"). She noted that during this presentation staff would address Board members' questions raised at the last Board meeting, when this award was first proposed, then subsequently postponed. (ref. V A.1, September 11, 2024).

Ms. Murtagh summarized the contract's scope, duration, and phases. She reviewed the recommended contract structure, which was presented and approved by the Board at the March 2024 Board meeting. She noted that the structure as approved would have a total term of 15 years, comprised of an initial award of compensation to complete a scope of work over the first five years, and a later contract amendment of approximately 10 years for the completion engineering services during construction ("ESDC"). (ref. V A.1, March 13, 2024)

Next, referring Board members to a presentation slide showing an outline of the final design phase services entitled *Final Design Engineering Services (7556) Scope of Work*, Ms. Murtagh explained discussion would focus on the proposed award of Contract 7556 for the total 15-year term, with approval of the compensation for the five-year final design phase.

Ms. Murtagh then discussed the contract's two-step procurement process, in which three teams were shortlisted at the RFQ step and invited to submit proposals at the RFP step. She described the established proposal evaluation criteria used to determine the team that would provide the best value to MWRA, and noted that staff had provided a detailed scope of work and over 60 individual reference documents with nearly 20,000 pages to all RFP phase proposers.

Ms. Murtagh explained that since the September Board meeting, staff have reviewed the information that was provided to proposers at the RFP stage, and that which staff plan to

provide to the awarded firm at the Notice to Proceed ("NTP"). She explained the four general categories of the information provided at the RFP stage and the three general categories of the information that staff plan to provide at NTP. Ms. Murtagh noted that as a follow-up to questions raised previously staff reviewed these early phase documents and confirmed that the summaries and conclusions of the NTP-stage documents are incorporated in the final environmental review and preliminary design materials that all proposers received in the RFP stage. She also explained that no information that will be shared at the NTP stage would have assisted proposers at the RFP stage. She noted that all RFP-stage proposers had nine weeks to review the provided materials and prepare their proposals.

Next, Ms. Murtagh explained that staff will employ Program control measures to ensure that the firm only performs the work required for the task at hand, and that available efficiencies are realized. She provided an example and noted that proposers based their proposals on the scope of work and their experience, and that in some future circumstances, a higher or lower level of effort for some tasks may be required than initially budgeted.

Ms. Murtagh then presented the selection committee's proposal evaluation criteria, scores and rankings, as well as a cost comparison summary. She noted that compensation for this proposed contract will be distributed on a cost plus fixed fee basis, with a set not-to-exceed amount. She explained that there is no initial lump sum or guaranteed minimum compensation, and that the consultant will only be paid for the actual level of effort to perform required work. She then described guardrails for this contract's budget expenditures. She explained that the contract's scope of work and budget are organized into subtasks. She noted that staff approval is required before the consultant can perform work on subtasks and described the review and approval process.

Ms. Murtagh then reiterated that under this contract, the consultant would perform work on a cost plus fixed fee basis for actual work performed and direct expenses, invoiced monthly after work completion. She advised that there is no circumstance in which MWRA would prepay the consultant for services, and that this contract does not include lump sum or milestone payment provisions.

Finally, Ms. Murtagh presented an overview of the qualifications and experience of WSP, the recommended firm, and invited MWRA's Affirmative Action staff to discuss MBE/WBE participation.

Next, Tomeka Cribb, MWRA Acting Special Assistant for Affirmative Action, provided responses related to MBE/WBE goals Board Member Swett had raised during the September, 11 2024 Board of Directors' meeting. With respect to Mr. Swett's question about how the precise MBE/WBE percentages are calculated, Ms. Cribb explained that a consultant performed an

availability analysis in 2002 to calculate MBE/WBE goals for MWRA contracts. She noted that components used in the analysis included, among others, the availability of MBE and WBE companies to do business with MWRA in our market area, historical disbursements and capacity. She reported that staff are preparing to update the availability analysis by undertaking a disparity study to ensure that MWRA's MBE/WBE goals are appropriate and timely.

Regarding Mr. Swett's questions concerning whether the diversity of key personnel is considered in MWRA's proposal evaluation process, Ms. Cribb reported that MWRA's selection committees do not currently consider the diversity of key personnel in the evaluation of firms for professional services contracts; however, minority and female workforce utilization goals are established and tracked for certain construction contracts. She acknowledged Mr. Swett's prior recommendation to include key personnel diversity as part of MWRA's proposal evaluation process, and expressed interest in discussing the matter further.

Finally, with respect to Mr. Swett's questions regarding how staff evaluated MBE/WBE participation goals for MWRA's CSO Post-Construction Monitoring and Performance Assessment Contract 7572 with AECOM Technical Services, Inc., Ms. Cribb explained that MWRA has not historically set MBE/WBE participation goals for certain types of contracts, including technical assistance contracts, because they do not typically present significant subcontracting opportunities. She noted that participation levels for these contract types are set based on contracts with similar scopes, in consultation with project managers. Ms. Cribb explained that the participation goals for AECOM Contract 7572 were relatively low due to the nature of the contract; however, if a proposer includes a participation goal in its proposal, MWRA will make that a requirement.

In regard to proposed MWTP Design Engineering Contract 7556, Mr. Jack Walsh requested clarification on why ESDC is planned to be awarded as an amendment. Ms. Murtagh explained that the scope and costs of ESDC for a program of the MWTP's magnitude would be very difficult to estimate so early in the Program's lifespan, and that awarding ESDC as an amendment is a common industry practice. Mr. Jack Walsh asked how often design engineering staff would be present on-site during construction. Ms. Murtagh relayed that for the MWTP, the design engineer's primary role would be to provide engineering services during construction, while a separate construction manager would provide field oversight. There was brief, general discussion about the design engineer and construction manager roles.

Ms. Murtagh then reviewed staff's planned steps for negotiating and awarding the future ESDC amendment. She explained that WSP, the recommended design engineering firm, is submitting to MWRA its committed maximum overhead rate and fee for ESDC. Mr. Jack Walsh asked which Program entity would be responsible for inspection during construction. Ms. Murtagh explained

that inspections would be led by the construction manager, with some oversight provided by the design engineer for such tasks as structural inspections and geologic mapping of tunnel walls. Mr. Jack Walsh asked if the Program will include designated safety staff. Ms. Murtagh advised that the construction manager would provide safety personnel, and that more details will be available in approximately two years, when the construction management contract is ready to be advertised. Mr. Jack Walsh requested more information about the selection committee's scoring criteria. Ms. Murtagh explained that the criteria used for this contract is typical for MWRA. There was brief, general discussion about the criteria.

Mr. Taverna asked if MWRA and its program support services contractor (JCK Underground, Inc.) had the staff available to manage a contract of this size and complexity. Ms. Murtagh responded in the affirmative. She provided a brief overview of the MWTP team, and a number of departments across MWRA whose staff will lend their expertise in support of the Program. She advised that MWTP staffing needs will be reviewed and adjusted as needed as the Program progresses.

Ms. Wolowicz thanked Ms. Murtagh and Ms. Cribb for answering Board members' questions from the September meeting, and expressed confidence in the MWTP staff.

Mr. Swett thanked Ms. Cribb for responding to his questions. He advised that in his view, an updated availability analysis is long overdue, noting that the last study was performed in 2002. He asked if MWRA has a policy on the frequency of such studies. Ms. Cribb explained that MWRA does not currently have such a policy, and Mr. Swett suggested that the Authority consider such a policy to provide the frequency of updating the analytical tool used to develop project specific targets in a rapidly changing workforce environment. He also encouraged MWRA to consider incorporating MBE/WBE workforce goals into large design contracts, and looks forward to what comes out of the analysis. Mr. Swett noted that he is fine with moving forward with this contract, but that the questions show broader areas for improvement in this area. Ms. Cribb agreed. Mr. Swett recommended that MWRA staff review MBTA and Massport contracting policies as models.

Hearing no further discussion or questions from the Board, Chair Tepper requested a roll call vote in which the members were recorded as follows:

Yes	No	Abstain
Tepper		
Flanagan		
Peña		
Swett		
Taverna		

Yes	No	Abstain
Vitale		
J. Walsh		
P. Walsh		
Wolowicz		

(ref. V A.1)

CONTRACT AMENDMENTS/CHANGE ORDERS

Section 101 Pipeline Extension (Waltham): Baltazar Contractors, Inc., Contract 7457, Change Order 6

A motion was duly made and seconded to authorize the Executive Director, on behalf of the Authority, to approve Change Order 6 to Contract 7457, Section 101 Pipeline Extension, with Baltazar Contractors, Inc. for a not-to-exceed amount of $1,650,000, increasing the contract amount from $34,231,736.35 to $35,881,736.35, with no increase in contract term.

Further, a motion was duly made and seconded to authorize the Executive Director to approve additional change orders as may be needed to Contract 7457 in an amount not to exceed the aggregate of $1,000,000 and 180 days in accordance with the Management Policies and Procedures of the Board of Directors.

Martin McGowan, MWRA Construction Director, presented progress photos and discussed staff's request for Board approval of Change Order 6 to the Section 101 Pipeline Extension Project in Waltham. He explained that the change order is needed to address unforeseen conditions, including significant ledge overruns and the transfer of unmarked, large-diameter water service lines. He noted that the contract's scope of work requires that all City of Waltham service lines be transferred from an existing 8-inch water main to an existing 16-inch main, and that while performing this work the contractor encountered 11 large services that were not identified in the City's record drawings. Finally, Mr. McGowan explained that staff were proposing this change order on a not-to-exceed basis because each water service installation is slightly different.

Hearing no discussion or questions from the Board, Chair Tepper requested a roll call vote in which the members were recorded as follows:

Yes	No	Abstain
Tepper		
Flanagan		
Peña		
Swett		
Taverna		

Yes	No	Abstain
Vitale		
J. Walsh		
P. Walsh		
Wolowicz		

(ref. V B.1)

Intermediate High Pipeline Improvements, CP2, Rehabilitation of Sections 24 and 25 Water Mains: Albanese D&S, Inc., Contract 6956, Change Order 5

A motion was duly made and seconded to authorize the Executive Director, on behalf of the Authority, to approve Change Order 5 to Contract 6956, Intermediate High Pipeline Improvements, CP2, Rehabilitation of Sections 24 and 25 Water Mains, with Albanese D&S, Inc. for a not-to-exceed amount of $767,676.47, increasing the contract amount from $19,615,655.15 to $20,383,331.62, with no increase in contract term.

Further, a motion was duly made and seconded to authorize the Executive Director to approve additional change orders as may be needed to Contract 6956 in an amount not to exceed the aggregate of $1,000,000 and 180 days in accordance with the Management Policies and Procedures of the Board of Directors.

Mr. McGowan presented the reasons for a proposed change order for the Intermediate High Pipeline Improvements, CP2, Rehabilitation of Sections 24 and 25 Water Mains Project with Albanese D&S, Inc. He explained that the proposed change order would address significant quantity overruns for three classifications of surplus soil, as well as the lining of unmarked clay sewer line, and the removal and replacement mismarked clay drain line. He presented photos of the clay lines' locations, and noted that the rehabilitation and replacement work is necessary to protect and maintain the existing utilities during construction of the new water line being installed under this contract.

Mr. Taverna asked why Group III soils are required to be trucked out of state. Mr. McGowan explained that this class of soil contains metals, petroleum, volatile organic compounds, and semi-volatile organic compounds.

Hearing no further discussion or questions from the Board, Chair Tepper requested a roll call vote in which the members were recorded as follows:

Yes	No	Abstain
Tepper		
Flanagan		
Peña		

Yes	No	Abstain
Swett		
Taverna		
Vitale		
J. Walsh		
P. Walsh		
Wolowicz		

(ref. V B.2)

WASTEWATER POLICY AND OVERSIGHT

Information

MWRA Industrial Waste Report #40: Industrial Pretreatment Program Annual Report to EPA for FY24

Matthew Dam, MWRA TRAC Director, briefly discussed the MWRA Industrial Waste Report #40, submitted annually to the DEP and EPA as required by MWRA's NPDES permit. He referred Board Members to the Staff Summary for a summary of the report, and noted that TRAC staff had met all goals and EPA program requirements for FY2024. Finally, Mr. Dam invited Board members' questions.

Mr. Jack Walsh asked if there were ways for MWRA to recover more of the costs for the Industrial Pretreatment Program, in order to benefit ratepayers. Mr. Dam explained that MWRA amended its sewer use regulations this year that included a 3% cost increase for monitoring and permit fees from FY2025 through F2029. Mr. Jack Walsh stated that in his view, 3% is not a sufficient increase. Mr. Dam noted that MWRA had recovered approximately 57% of costs, which represents a steady increase. Mr. Jack Walsh noted his opinion that industry should be paying more of the cost burden. Ms. Weidman explained that some of the Industrial Pretreatment Program costs are associated with NPDES and other permitting requirements, rather than the administration of the program.

Hearing no further questions or discussion from the Board, Committee Chair Patrick Walsh moved to the next Information item. (ref. VI A.1)

2023 Deer Island Outfall Monitoring Overview

David Wu, MWRA EQUAL Director, presented a video of undersea life near a MWRA Deer Island Outfall diffuser. He explained that the video was taken in July, 2023 at active diffuser #2, which is on the east end of the diffuser array. He highlighted the anemones, barnacles and fish visible in the video, and reported that the outfall continues to show minimal environmental impact. Finally, Mr. Wu invited Board members' questions.

(Mr. Taverna left and returned to the room during the presentation.)

Mr. Jack Walsh requested more information about outfall monitoring results for flounder tumors, as discussed in the Staff Summary. Mr. Wu explained that there are low levels of flounder tumor precursors near the outfall, and that levels are decreasing over time. Mr. Jack Walsh asked if tumor precursors were found at Deer Island. Mr. Wu reported that no tumor precursors were found at Deer Island in 2023.

Hearing no further questions or discussion from the Board, Mr. Patrick Walsh moved to the next Information item. (ref. VI A.2)

(Chair Tepper left the meeting, and appointed Ms. Wolowicz to serve as Acting Chair.)

Contract Awards

Hayes Pump Station Rehabilitation: Waterline Industries Corporation, Contract 7375

A motion was duly made and seconded to approve the award of Contract 7375, Hayes Pump Station Rehabilitation, to the lowest responsible and eligible bidder, Waterline Industries Corporation, and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of $25,559,181, with a contract term of 1,095 calendar days from the Notice to Proceed.

Brian Kubaska, MWRA Chief Engineer, presented an overview of the Hayes Pump Station Rehabilitation Project, including its location; major project components; and, scope of work. He reported that the facility has been in continuous operation for over 30 years; is in need of rehabilitation; and, that much of its equipment is at the end of its useful life. Mr. Kubaska noted that the proposed project also includes code updates for HVAC and fire systems, as well as site drainage work. He explained that a bypass pump system will be installed to divert the station's flows during construction, for project efficiency.

Next, Mr. Kubaska presented photos of some equipment to be replaced under the proposed contract, including influent gates, screens/grinders and wastewater pumps. He then discussed the procurement results for the contract. He reported that MWRA received two bids, including the low bid from the recommended firm, Waterline Industries Corporation ("Waterline Industries"), which came in $2.9 million below the Engineer's Estimate. Finally, Mr. Kubaska noted that the contract duration would be 36 months, and requested Board approval for award to Waterline Industries.

There was brief, general discussion about competition within the filed sub-bid category. Mr. Kubaska explained that there was some competition for most filed sub-bids.

Mr. Jack Walsh asked if the project and planned diversion would have any negative impacts downstream. Mr. Kubaska explained that the bypass pumps to be installed will be chopper pumps that break up solids and move materials into the downstream system. He further

explained that flows would be diverted to the Chelsea Headworks, where any remaining screenings would be removed prior to conveyance to the Deer Island Wastewater Treatment Plant. There was brief, general discussion about how chopper pumps work.

Mr. Taverna asked if the contract was bid under Chapter 149. Mr. Kubaska responded in the affirmative.

Hearing no further discussion or questions from the Board, Acting Chair Wolowicz requested a roll call vote in which the members were recorded as follows:

Yes	No	Abstain
Flanagan		
Peña		
Swett		
Taverna		
Vitale		
J. Walsh		
P. Walsh		
Wolowicz		

(ref. VI B.1)

ADMINISTRATION, FINANCE AND AUDIT

Delegated Authority Report – September 2024

Committee Chair Flanagan invited Board Members' questions on the Delegated Authority Report.

Hearing no discussion or questions from the Board, Committee Chair Flanagan moved to the next Information item. (ref. VII A.1)

FY25 Financial Update and Summary through September 2024

Thomas Durkin, MWRA Finance Director, reported that ongoing spending patterns continue, including for wages and salaries, which are impacted by lower Full Time Equivalent ("FTE") counts. He noted that staff are monitoring debt service and variable rates, which are volatile but manageable. Finally, Mr. Durkin reported that revenue is slightly over budget, which he attributed to higher than estimated interest rates.

Mr. Taverna remarked on the declining FTE counts reported in the Staff Summary. Mr. Durkin explained that staff are working diligently to increase FTEs, and that their efforts are resulting in improvements over time.

Hearing no further discussion or questions from the Board, Mr. Flanagan moved to Approvals. (ref. VII A.2)

Approvals

Amendment to the Eighty-Seventh Supplemental Bond Resolution

A motion was duly made and seconded to amend the Eighty-Seventh Supplemental Bond Resolution and related Issuance Resolution approving issuance of the Authority's General Revenue Bonds (Subordinated Series), each adopted on February 21, 2024, to increase the principal amount of bonds authorized from $85,000,000 to $150,000,000; all other terms of the Issuance Resolution and the Eighty-Seventh Supplemental Resolution being hereby confirmed.

Matthew Horan, MWRA Deputy Finance Director/Treasurer, summarized the reasons for a proposed amendment to the Eighty-Seventh Supplemental Bond Resolution. He noted that if approved, the increased borrowing authorization would allow MWRA to use State Revolving Funds ("SRF") rather than short-term borrowing, and result in approximately $500,000 in savings over a 90-day period.

Mr. Taverna asked why MWRA recommends amending the Eighty-Seventh Supplemental resolution versus issuing a new resolution. Mr. Horan explained that the amendment is proposed under the advisement of MWRA's Bond Counsel, and that the Massachusetts Clean Water Trust ("Trust") has indicated that it would permanently finance the prior and amended borrowings as one loan.

Ms. Wolowicz asked if the amended resolution would entail less paperwork than two separate transactions. Mr. Horan responded in the affirmative.

Mr. Vitale expressed support for the proposed amendment, and congratulated MWRA staff for their work that resulted in the receipt of $8 million in principal forgiveness loans provided by the Trust. He also highlighted MWRA's receipt of a total of $11.4 million in American Rescue Plan Act ("ARPA") funding, which has resulted in debt service savings of over $14 million. Mr. Vitale noted that the BWSC is taking similar steps to save money for its ratepayers.

Hearing no further discussion or questions from the Board, Chair Tepper requested a roll call vote in which the members were recorded as follows:

Yes	No	Abstain
Flanagan		
Peña		
Swett		
Taverna		

Yes	No	Abstain
Vitale		
J. Walsh		
P. Walsh		
Wolowicz		

(ref. VII B.1)

Delegation of Authority to Execute a Contract for the Purchase and Supply of Electricity for MWRA Interval Accounts

A motion was duly made and seconded to authorize the Executive Director, on behalf of the Authority, to execute a contract for the supply of electricity to MWRA's Interval Accounts, with the lowest responsive and responsible bidder for the period and pricing structure determined by staff to be in MWRA's best interest, and for a contract supply term not to exceed 36 months. This delegation of authority is necessary because MWRA will be required to execute a contract within several hours of the price submission in a constantly changing market.

Kristen Patneaude, MWRA Energy Manager, presented an overview of MWRA's electricity contracts' load and expenses. She explained that MWRA's Interval Accounts include large facilities such as the John Carroll Water Treatment Plant; Clinton Wastewater Treatment Plant; wastewater headworks; and some larger water and wastewater pump stations. She noted that the interval accounts represent approximately 20% of MWRA's purchase load and 40% of expenses, and is roughly equivalent to the annual electricity use of 7,000 Massachusetts homes.

Ms. Patneaude then explained that purchasing electricity through Interval Accounts gives MWRA maximum flexibility to react to market events by monitoring indicative pricing over time, and locking in during periods of lower pricing. She presented a chart showing how this strategy was successfully employed for a Deer Island electricity contract in 2024, and briefly described the process for that purchase.

Ms. Wolowicz requested more information about the duration of the locked-in intervals. Ms. Patneaude explained that staff sought intervals of 12, 24 and 36 months. Ms. Wolowicz asked if staff work with consultants on Interval Account purchases. Ms. Patneaude advised that staff monitor indicative pricing, which is submitted by qualified bidders on a weekly basis.

Hearing no further discussion or questions from the Board, Ms. Wolowicz requested a roll call vote in which the members were recorded as follows:

Yes	No	Abstain
Flanagan		

Yes	No	Abstain
Peña		
Swett		
Taverna		
Vitale		
J. Walsh		
P. Walsh		
Wolowicz		

(ref. VII B.2)

PERSONNEL AND COMPENSATION

Approvals

October 2024 PCR Amendments

A motion was duly made and seconded to approve amendments to the Position Control Register (PCR) as presented and filed with the records of this meeting.

Wendy Chu, MWRA Human Resources Director, invited Board members' questions on the October 2024 PCR Amendments.

Hearing no discussion or questions from the Board. Ms. Wolowicz requested a roll call vote in which the members were recorded as follows:

Yes	No	Abstain
Flanagan		
Peña		
Swett		
Taverna		
Vitale		
J. Walsh		
P. Walsh		
Wolowicz		

(ref. VIII A.1)

Extension of Contract Employment, MIS

A motion was duly made and seconded to approve the extension of employment for Ms. Laura Makary, MIS Contractor, for three months until January 24, 2025 (37.5 at the hours per current rate of $30.95/hour).

In reference to a discussion at the last Board meeting (ref. P&C A.2, September 11, 2024), Ms. Chu noted that staff are convening a review of hiring policies for intern position extensions, and

invited questions from the Board about a proposed employment extension for an MIS Contractor.

Ms. Wolowicz asked how long the incumbent has worked for MWRA. Ms. Chu responded that the contractor will have worked for 12 months by the end of October. Ms. Wolowicz asked if the current contract is the employee's first with MWRA. Ms. Chu responded in the affirmative.

Mr. Vitale asked if Board approval is needed to hire retired MWRA staff members under contract, or if such approvals would be under delegated authority. Mr. Laskey explained that MWRA does not generally hire retirees as contractors, and that he tends to avoid this practice. There was brief, general discussion about the pros and cons of hiring retirees under contract, and potential scenarios that could warrant such a contract. General Counsel Francisco Murphy advised on the focus of the Board of Directors' policy.

Hearing no further discussion or questions from the Board, Ms. Wolowicz requested a roll call vote in which the members were recorded as follows:

Yes	No	Abstain
Flanagan		
Peña		
Swett		
Taverna		
Vitale		
J. Walsh		
P. Walsh		
Wolowicz		

(ref. VIII A.2)

CORESPONDENCE TO THE BOARD

There was no correspondence to the Board. (ref. IX)

ADJOURNMENT

A motion was duly made and seconded to adjourn the meeting.

Hearing no further discussion or questions from the Board, Chair Tepper requested a roll call vote in which the members were recorded as follows:

Yes	No	Abstain
Flanagan		
Peña		
Swett		

Yes	No	Abstain
Taverna		
Vitale		
J. Walsh		
P. Walsh		
Wolowicz		

The meeting adjourned at 3:50pm.

Approved: November 13, 2024

Attest: _____

Brian Peña, Secretary

LIST OF DOCUMENTS AND EXHIBITS USED

- Draft Minutes of the September 11, 2024 MWRA Board of Directors' Meeting (ref. I)
- October 23, 2024 Presentation – Dorchester Tunnel Incident and Response (ref. III)
- October 23, 2024 Staff Summary and Presentation – Metropolitan Water Tunnel Program Final Design Engineering Services: WSP USA Inc., Contract 7556 (ref. V A.1)
- October 23, 2024 Staff Summary and Presentation – Section 101 Pipeline Extension (Waltham): Baltazar Contractors, Inc., Contract 7457, Change Order 6 (ref. V B.1)
- October 23, 2024 Staff Summary and Presentation – Intermediate High Pipeline Improvements, CP2, Rehabilitation of Sections 24 and 25 Water Mains: Albanese D&S, Inc., Contract 6956, Change Order 5 (ref. V B.2)
- October 23, 2024 Staff Summary – MWRA Industrial Waste Report #40: Industrial Pretreatment Program Annual Report to EPA for FY24 (ref. VI A.1)
- October 23, 2024 Staff Summary Staff Summary and Presentation – 2023 Deer Island Outfall Monitoring Overview (ref. VI A.2)
- October 23, 2024 Staff Summary Staff Summary and Presentation – Hayes Pump Station Rehabilitation: Waterline Industries Corporation, Contract 7375 (ref. VI B.1)
- October 23, 2024 Staff Summary Staff Summary – Delegated Authority Report – September 2024 (ref. VII A.1)
- October 23, 2024 Staff Summary Staff Summary – Financial Update and Summary through September 2024 (ref. VII A.2)
- October 23, 2024 Staff Summary Staff Summary – Amendment to the Eighty-Seventh Supplemental Bond Resolution (ref. VII B.1)
- October 23, 2024 Staff Summary Staff Summary and Presentation – Delegation of

Authority to Execute a Contract for the Purchase and Supply of Electricity for MWRA Interval Accounts (ref. VII B.2)

- October 23, 2024 Staff Summary Staff Summary – October 2024 PCR Amendments (ref. VIII A.1)
- October 23, 2024 Staff Summary Staff Summary – Extension of Contract Employee, MIS (ref. VIII A.2)

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: November 13, 2024
SUBJECT: Delegated Authority Report – October 2024

COMMITTEE: Administration, Finance & Audit

X INFORMATION
___ VOTE

Michele S. Gillen
Director, Administration

Barbara Aylward, Administrator A & F
Julio Esperas, Assistant Buyer
Preparer/Title

Douglas J. Rice
Director of Procurement

RECOMMENDATION:

For information only. Attached is a listing of actions taken by the Executive Director under delegated authority for the period October 1-31, 2024.

This report is broken down into three sections:

- Awards of Construction, non-professional and professional services contracts and change orders and amendments in excess of $25,000, including credit change orders and amendments in excess of $25,000;
- Awards of purchase orders in excess of $90,000; and
- Amendments to the Position Control Register, if applicable.

DISCUSSION:

The Board of Directors' Management Policies and Procedures, as amended by the Board's vote on February 16, 2022, delegate authority to the Executive Director to approve the following:

Construction Contract Awards:

Up to $3.5 million if the award is to the lowest bidder.

Change Orders:

Up to 25% of the original contract amount or $1,000,000.00, whichever is less, where the change increases the contract amount, and for a term not exceeding an aggregate of six months; and for any amount and for any term, where the change decreases the contract amount. The delegations for cost increases and time can be restored by Board vote.

Professional Service Contract Awards:

Up to $1,000,000 and three years with a firm; or up to $200,000 and two years with an individual.

Non-Professional Service Contract Awards:

Up to $1,000,000 if a competitive procurement process has been conducted, or up to $100,000 if a procurement process other than a competitive process has been conducted.

Purchase or Lease of Equipment, Materials or Supplies:

Up to $3.5 million if the award is to the lowest bidder.

Amendments:

Up to 25% of the original contract amount or $500,000, whichever is less, and for a term not exceeding an aggregate of six months.

Amendments to the Position Control Register:

Amendments which result only in a change in cost center.

BUDGET/FISCAL IMPACT:

Recommendations for delegated authority approval include information on the budget/fiscal impact related to the action. For items funded through the capital budget, dollars are measured against the approved capital budget. If the dollars are in excess of the amount authorized in the budget, the amount will be covered within the five-year CIP spending cap. For items funded through the Current Expense Budget, variances are reported monthly and year-end projections are prepared at least twice per year. Staff review all variances and projections so that appropriate measures may be taken to ensure that overall spending is within the MWRA budget.

Construction & Professional Services Delegated Authority Items October 1 – 31, 2024

No.	Date of Award	Title and Explanation	Contract	Amend/CO	Company	Value
C-1	**10/18/24**	**Wachusett Dam Lower Gatehouse Pipe and Boiler Replacement** Provide commercial dive services for Sluice Gate inspection and repair; Increase fire watch allowance; Furnish and install new stainless steel hardware and gaskets for existing dismantling joints; Furnish and install 316 stainless steel hardware for flanged joints in lieu of hot dipped galvanized carbon steel; Perform carbon fiber reinforced polymer lining modifications; Furnish and install a 42-inch wall pipe that is 11'2" in length in lieu of the specified 8'8" wall pipe.	**7380**	**4**	**J.F. White Contracting Company**	**$287,396.44**
C-2	**10/22/24**	**Elevator Maintenance Services at Various MWRA Facilities** Award of a contract to the lowest responsive bidder to provide elevator maintenance services at 14 various MWRA facilities for a term of 1,095 calendar days.	**OP-478**	**Award**	**United Elevator Company, Inc.**	**$413,480.00**
C-3	**10/25/24**	**John J. Carroll Water Treatment Plant SCADA System Improvements** Furnish and install new fiber optic connections for three control panels.	**7582**	**17**	**LeVangie Electric Company, Inc.**	**$35,878.41**
C-4	**10/30/24**	**Quabbin Maintenance Building Design/ESDC** Extend contract term by six months from December 17, 2024 to June 17, 2025 to allow the Consultant to complete design and bidding services.	**7677**	**1**	**The Robinson Green Beretta Corp.**	**$325,209.00**

Purchasing Delegated Authority Items October 1-31, 2024

No.	Date of Award	Title and Explanation	Company	Value
P-1	**10/18/24**	**One-Year Purchase Order Contract for the Supply and Delivery of Ferric Chloride** Deer Island uses Ferric Chloride to prevent and treat struvite formation in digesters. Compared to the existing contract, the cost has increased 1.5%.	**Kemira Water Solutions, Inc.**	**$4,488,000.00**
P-2	**10/18/24**	**One-Year Purchase Order Contract for dataPARC PARCview Software Licenses and Implementation Services** dataPARC PARCview software is used to visualize industrial analytics data generated from its plant information historian and other sources. This procurement includes the required dataPARC licenses along with implementation services to assist with the installation and configuration of the software, conversion of the Processbook files to dataPARC format, and training of staff.	**Capstone Technology Corporation**	**$315,400.00**
P-3	**10/22/24**	**Sole Source Purchase Order for One Year of Maintenance and Support for the Pretreatment Information Management System** The Pretreatment Information Management System (PIMS) is used to monitor current and historical permitting, sampling, inspection, and enforcement information. Inflection Point Solutions, LLC is the developer of PIMS, and no other firm has the knowledge or ability to provide MWRA with the comprehensive support needed. Inflection Point Solutions, LLC has been approved as the sole-source provider of these services.	**Inflection Point Solutions, LLC**	**$115,000.00**
P-4	**10/25/24**	**Purchase Order for the Supply and Delivery of 250,000 Gallons of Ultra-Low Sulfur #2 Diesel Fuel—*State Contract ENE53*** The Deer Island Treatment Plant uses ultra-low sulfur #2 diesel fuel in the Thermal Power Plant. Global Montello Group Corporation submitted a competitive, locked in, per-gallon delivered price that includes all taxes and fees and protects MWRA from price escalations during this period.	**Global Montello Group Corporation**	**$572,900.00**
P-5	**10/30/24**	**Purchase Order Contract for a Five Year Subscription of VMware Cloud Foundation 5 Software—*State Contract ITT72*** MIS uses VMware Vsphere to virtualize its server infrastructure. This procurement will provide the licenses needed to be compliant with the new licensing model and maintain support for five years for the five recently purchased servers.	**Presidio Networked Solutions, LLC**	**$109,401.60**

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: November 13, 2024
SUBJECT: FY2025 First Quarter Orange Notebook

COMMITTEE: Administration, Finance & Audit

X INFORMATION
___ VOTE

Stephen Estes-Smargiassi, Director Planning & Sustainability
Malcolm Ragan, Senior Planner
Michael O'Keefe, Senior Program Manager, Planning
Preparer/Title

David W. Coppes, P.E.
Chief Operating Officer

RECOMMENDATION:

For information only. The Quarterly Report on Key Indicators of MWRA Performance (the Orange Notebook) is prepared at the close of each quarter of the fiscal year.

DISCUSSION:

The Orange Notebook presents performance indicators for operational, financial, workforce, and customer service parameters tracked by MWRA management each month. This staff summary includes highlights from the first quarter of fiscal year 2025.

Staffing Levels

External hiring in the first quarter of FY25 was lower than it was in the first quarter of FY24. MWRA completed 22 external hires in the first quarter of FY25 compared to 36 in the first quarter of FY24. During this quarter there were 20 internal promotions compared to 25 in the first quarter of FY24. A combination of several hard-to-fill positions and the timing of retirements and resignations in the first few months of the quarter (there were 85 employee separations in FY24, and there are already 34 separations in the first quarter of FY25) has led to a net reduction of nearly 12 FTEs since the end of June. Staff seek to increase hiring in the second quarter. At the end of September 2024, staffing stood at 1,050.7 FTEs, about 103 below the budget of 1,154 FTEs. (See page 50.)

Lower than Average Precipitation

The Boston Metro area and MWRA's watershed experienced a respite from the high precipitation of the previous year, impacting both wastewater and water supply operations in the first quarter. Precipitation was 44% lower than the four-year average in the first quarter, leading to flows at Deer Island of 18% below average. As a result, total power usage at the plant was slightly below target, with power for wastewater pumping being the most significant at 13% below average. (See page 1.)

Similarly, precipitation in the watershed was below the long-term average, allowing MWRA to continue to transfer water from Quabbin Reservoir to Wachusett Reservoir throughout the quarter. (See page 28.) These transfers provided continued water quality benefits from Quabbin at Carroll Water Treatment Plant, as reflected in lower levels of UV-254, a measure of the reactive natural organic matter in the water, in Wachusett. (See page 22.)

Lower precipitation also caused the elevation of Quabbin to go down by 4.75 feet. The volume of the reservoir was at 89.6% as of September 30, 2024, an 8.7 % decrease for the quarter, which represents a loss of more than 35.9 billion gallons of storage. (See page 28.) Since Quabbin was at a very high level prior to this quarter, the Reservoir was still well within normal operating range at the end of the quarter.

Chrysosphaerella Algae Detected in Quabbin Reservoir

During routine sampling on July 9, the Department of Conservation and Recreation (DCR) reported an increase in levels of Chrysosphaerella, a golden brown algae, in the Quabbin Reservoir. In accordance with MWRA's algae response plan, MWRA and DCR staff initiated additional water quality sampling, assessed algae concentrations, and conducted daily taste tests. While the presence of low levels of algae is a sign of a healthy reservoir, these particular algae can impart a metallic taste to tap water. In the first quarter, MWRA received 13 complaints from within the CVA communities associated with the higher levels of algae. Chrysosphaerella's presence, while changing the taste, does not affect the water's safety; however, it did result in a higher chlorine demand. (See page 25.)

Chrysosphaerella levels started to decline in mid-September and are now below MWRA and DCR's enhanced monitoring protocol threshold, although staff are continuing to monitor and communicate with communities and MassDEP. No complaints related to algae levels have been received since late September.

Violations at Clinton Wastewater Treatment Plant

Despite lower precipitation, the 12-month rolling flow average at Clinton Wastewater Treatment Plant continued to exceed the National Pollutant Discharge Elimination System (NPDES) permit limit of 3.01 mgd. The rolling average was affected by the carryover impacts of the wet conditions of the prior fiscal year, but it came down throughout the quarter. (See page 31.)

The Clinton Wastewater Treatment Plant effluent was also over the monthly maximum for pH in July – 9.2 compared to a limit of 8.3. (See page 31.) Due to a problem with the soda ash feed system at Clinton that lowered pH, staff manually added soda ash to the effluent to avoid going below the minimum permitted level; however, this led to an overcorrection, which caused an exceedance of the maximum limit. Elevated pH levels lasted a few hours and no adverse environmental impact was evident in the Nashua River.

Inverted Siphon Inspections and Cleaning Above Targets

Staff adopted a new maintenance approach for inverted siphons that focused on inspecting more sites in the first few months of the fiscal year. Typically, no siphon inspections occur from October through April due to cold weather, so in order to get a head start and eventually meet annual goals, staff prioritized inspections during the summer. As a result of these proactive inspections, the number of cleanings is also higher than previous quarters because crews clean the siphons before

inspections are scheduled. The results of this approach can be seen in the metrics for inspection and cleaning of siphons, both of which were well above targets: staff inspected 20 siphon barrels in this quarter, compared to a goal of 12, and cleaned 39, already surpassing the annual goal of 36. (See page 8.)

Total Coliform Positives Lower than First Quarter of FY24

While all of MWRA's water communities collect bacteria samples and chlorine residual data for the Total Coliform Rule (TCR), MWRA reports the results of the 44 systems that use our laboratory. MWRA also has its own TCR program with 144 sampling locations along MWRA's transmission system, water storage tanks and pumping stations, as well as a subset of the community TCR locations. Total coliform levels provide a general indication of the sanitary condition of the distribution system.

In the first quarter, a total of 95 of 8,931 samples submitted to MWRA tested positive for total coliform (1.1%): 88 of the 6,621 fully and partially served samples (1.3%), 7 of the 1,914 shared community/MWRA samples (0.4%), and none of the 398 Chicopee Valley Aqueduct community/MWRA samples (0%). (See page 26.) These results reflect a significant decrease from the first quarter of FY24, which saw 2.5% of samples test positive for coliform. Lower than average precipitation in the first quarter compared to the wet conditions in FY24 led to two likely drivers of lower coliform positives: lower levels of reactive organic matter in Wachusett Reservoir, as mentioned above; and higher system demands resulting in lower water age in the community distribution systems.

Under Target Renewable Energy Production at Deer Island

Deer Island's onsite renewable energy assets – a wind turbine, four solar installations, two hydro turbines, and, by far the largest source, the steam turbine generators (STG), which generate power as a by-product of combusting digester gas, provide roughly 25% of the facility's total electricity power use and much of its heating demand. Power generation from all of these renewable sources was below target in the first quarter due to being offline for maintenance and mechanical issues.

- STG generation was 6% below target due to temporary shutdown for annual thermal power plant maintenance in August, but was fully operational in September.

- Hydro turbine generation was 78% below target as turbine availability was only 23% due to temporary mechanical issues with Turbine #2, while Turbine #1 remained out of service for rehabilitation. Due to the cost and frequency of repairs of the hydro turbines over the years, MWRA took the proactive step of including major rehabilitation of these assets in our maintenance contract approved by the Board in March 2024. However, while construction is ongoing, there is no redundancy for when the operational turbine requires repairs. Turbine #2 will be rehabbed when Turbine #1 is complete.

- Wind turbine generation was 18% below target as Turbine #2 experienced several mechanical issues and was out of service between August 30 and September 19. Turbine #1 remains out of service following its failure in May 2023 and is not included in FY25 tracking.

- Solar generation was 28% below target as the rooftop array on the Residuals Odor Control Facility remains out of service since September 2022 due to a failed inverter. A replacement inverter is not currently available. (See page 1.)

Despite lower generation, renewable power still accounted for 23% of Deer Island's total electrical power use for the quarter. (See page 3.)

MASSACHUSETTS WATER RESOURCES AUTHORITY

Board of Directors Report

on

Key Indicators of MWRA Performance

First Quarter FY2025

Q1	Q2	Q3	Q4
■			

Frederick A. Laskey, Executive Director
David Coppes, Chief Operating Officer
November 13, 2024

Board of Directors Report on Key Indicators of MWRA Performance

1st Quarter – FY25

Table of Contents

This quarterly report is prepared by MWRA staff to track a variety of performance measures for routine review by the Board of Directors. The content and format of this report is expected to develop as time passes. Information is reported on a preliminary basis as appropriate and available for internal management use and is subject to correction and clarification.

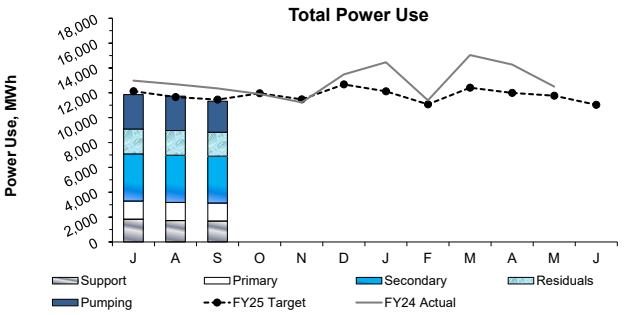
Frederick A. Laskey, Executive Director
David Coppes, Chief Operating Officer

November 13, 2024

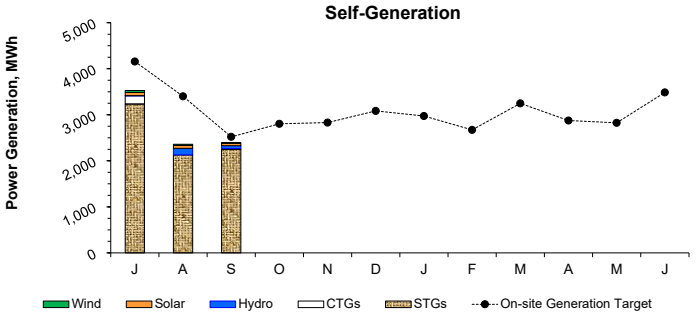
OPERATIONS AND MAINTENANCE

Deer Island Operations

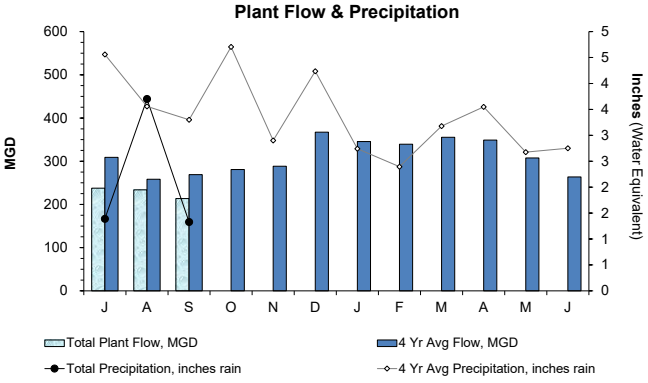
1st Quarter - FY25



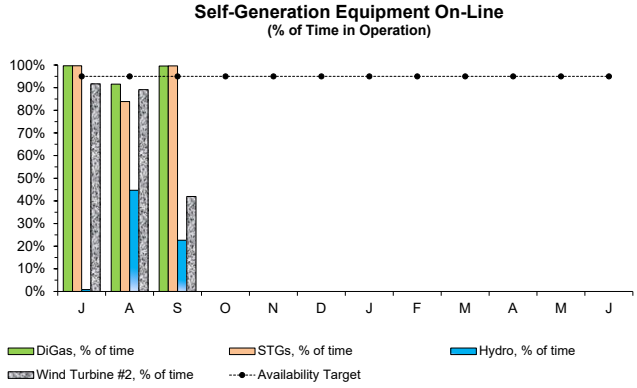
Total power usage in the 1st Quarter was on target (-0.9%) even though plant flow for this period was 18.1% below target with historical (4 year average) data used to generate the electricity model as there is a minimum baseline for power usage. Power used in most areas and major treatment processes was similar to target, except for power used for raw wastewater pumping which was 12.8% below target due to the lower plant flows, and power used for Secondary Treatment was 6.6% higher-than-expected due to a higher oxygen demand that is needed for maintaining a healthy activated sludge biomass especially during periods with lower plant flows and higher wastewater temperatures.



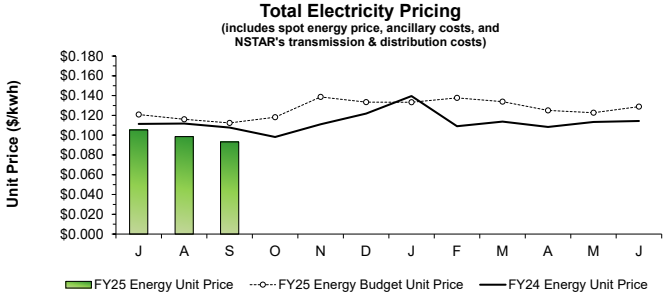
Power generated on-site during the 1st Quarter was 17.9% below target. CTGs generation was 71.0% less than target as the CTGs were operated for peak shaving on six (6) days in July, and only once briefly for maintenance/checkout purposes during the rest of the quarter. STGs generation was 6.2% below target due to the timing of the annual Thermal Power Plant (TPP) maintenance shutdown. The plant is returned to winter (non-vacuum) operation mode following the annual maintenance, thus resulting in lower generation by the Back Pressure Steam Turbine generator. This maintenance was completed in August this year, rather than in September as budgeted based on previous historical occurrences, resulting in the lower-than-expected STGs generation. Hydro Turbine generation was 77.7% below target as turbine availability was only 23% due to mechanical issues with Turbine #2, while Turbine #1 remained out of service pending a replacement gearbox and bearings. Solar Panel generation was 28.0% below target as the rooftop array on the Residuals Odor Control Facility remained out of service since September 12, 2022 due to a failed inverter. A replacement inverter is not currently available. Wind Turbine generation was 18.1% below target as Turbine #2 availability was 72% due to mechanical issues.



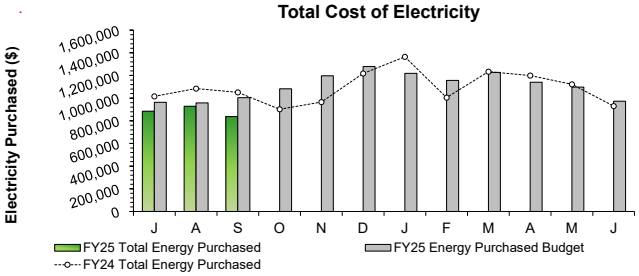
Total Plant Flow for the 1st Quarter was 18.1% below target with the budgeted 4 year average plant flow (228.3 MGD actual vs 278.7 MGD expected) as precipitation was 43.8% lower than target this quarter (6.42 inches actual vs. 11.42 inches expected).



The DiGas System availability exceeded the 95% availability target in the 1st Quarter, while STGs availability fell just below target due to the annual Thermal Power Plant maintenance shutdown in August. Hydro Turbines availability was only 22.7% due to mechanical issues with Turbine #2, while Turbine #1 remained offline pending a replacement gearbox and bearings. Wind Turbine availbility was 74.2% as Turbine #2 experienced several mechanical issues and was out of service starting August 30 and returned to service on September 19 following repairs. Wind Turbine #1 will remain out of service through FY25 and will not be included in the FY25 tracking of turbine availability.



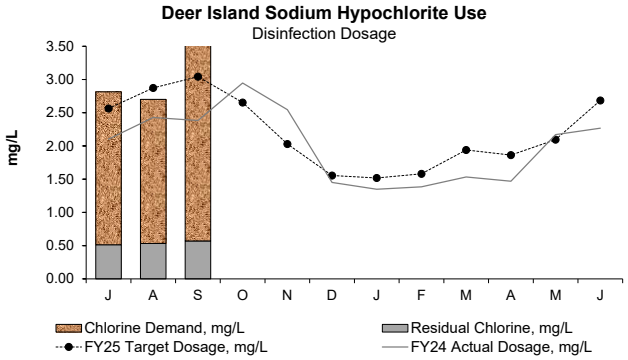
Under the current energy supply contract, a block portion of DI's energy is a fixed rate and the variable load above the block is purchased in real time. The Total Energy Unit Price for July through September is estimated as the complete invoices are pending receipt due to a billing delay with Direct Energy. Overall, the average unit price is estimated to be 15.0% lower than the budgetary estimate through September. The Total Energy Unit Price includes a fixed block price, spot energy price, transmission & distribution charges, and ancillary charges.

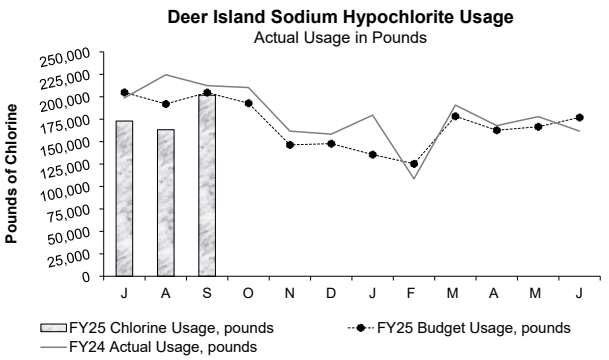


Year-to-date Total Cost of Electricity is estimated to be $270,402 (9.4%) lower than budgeted through September. The actual Total Cost of Electricity depicted for July through September is an estimate at this time as the complete invoices are pending receipt due to a billing delay with Direct Energy. The Total Cost of Electricity is estimated to be lower than budgeted as the estimated Total Energy Unit Price was 15.0% lower than target even though the Total Volume of Electricity Purchased was 6.6% above target as a result of lower-than expected onsite self-generation.

Deer Island Operations

1st Quarter - FY25





The disinfection dosing rate in the 1st Quarter was 10% above target with budgetary estimates while plant flow was 18.1% lower-than-expected resulting in a more concentrated wastewater that exerts a higher chlorine demand. However, sodium hypochlorite usage in pounds of chlorine was 10.6% lower-than-target due to the lower plant flows. DITP maintained an average disinfection chlorine residual of 0.54 mg/L in the 1st Quarter with an average dosing rate of 3.10 mg/L as chlorine demand was 2.56 mg/L. On March 4, the disinfection basin effluent total chlorine residual target for dry weather flows was increased from 0.30 mg/L to greater than or equal to 0.50 mg/L in preparation for potential new NPDES seasonal permit limits for indicator bacteria. The purpose for the higher chlorine residual target (and higher sodium hypochlorite dosing) is to continue developing operating strategies for the new permit, an effort that was also undertaken in 2023.

The overall disinfection dosing rate (target and actual) is dependent on plant flow, target effluent total chlorine residual levels, effluent quality and NPDES permit levels for fecal coliform.

Secondary Blending Events

Month	Count of Blending Events	Count of Blending Events Due to Rain	Count of Blending Events Due to Non-Rain-Related Events	Secondary, as a Percent of Total Plant Flow	Total Hours Blended During Month
July	0	0	0	100.0%	0.00
August	0	0	0	100.0%	0.00
September	0	0	0	100.0%	0.00
Total	0	0	0	100.0%	0.00

100% of all flows were treated at full secondary during the 1st Quarter as there were no secondary blending events. The Maximum Secondary Capacity during the entire quarter was 700 MGD.

Secondary permit limits were met at all times during the 1st Quarter.

Deer Island Operations & Maintenance Report

Environmental/Pumping:
The plant achieved an instantaneous peak flow rate in the 1st Quarter of 653.8 MGD during the early evening of August 4. This peak flow occurred during a storm event that brought 0.38 inches of total precipitation to the metropolitan Boston area with localized pockets of higher precipitation dispersed through the area. The Total Plant Flow was 18.1% below the 4 year average plant flow target for the quarter as precipitation was 43.8% lower than the 4 year average (6.42 inches actual vs. 11.42 inches expected.

Disinfection/Dechlorination:
MWRA uses sodium hypochlorite to destroy pathogens in plant effluent after primary and secondary treatment. Indicator bacteria such as Fecal Coliform, E. coli, and Enterococcus are used to measure the presence of potential pathogens. To provide a proper pathogen kill, sodium hypochlorite, a disinfectant, is added to meet a chlorine demand, then regulated by maintaining a chlorine residual. On March 4, the disinfection basin effluent total chlorine residual target for dry weather flows was increased from 0.30 mg/L to greater than or equal to 0.50 mg/L in preparation for potential new NPDES seasonal permit limits for indicator bacteria. The purpose for the higher chlorine residual target (and higher sodium hypochlorite dosing) is to continue developing operating strategies for the new permit, an effort that was also undertaken in 2023. In the 1st Quarter of FY25, DITP maintained an average disinfection chlorine residual of 0.54 mg/L with an average chlorine demand of 2.56 mg/L, with the adjusted higher target. Higher usage of both sodium hypochlorite and sodium bisulfite, used for removing the residual chlorine before discharging the effluent, will be necessary in order to comply with the more stringent indicator bacteria limits in the proposed new NPDES permit.

Primary and Secondary Treatments:
The contractor completed the first phase of the Clarifier Rehabilitation Project (Contract #7395) with the rehabilitation of the Primary Battery A Influent and Effluent Channels by the end of July. The work included putting all 96 primary influent gates in place, installing a new aeration header system, completing the installation of the lower aeration system and Linabond repair work, installing drains between Batteries A and B, replacing 12 effluent gates, completing hatch and grating modifications, and expansion joint repairs, in addition to other work. The contractor successfully completed this phase of work within the 42 calendar day milestone period and began similar work on the Primary Battery B Influent and Effluent Channels starting July 31 and was completed in mid-September. Similar work on the Primary Battery C Channels is anticipated to begin starting in late October. The contractor has also begun replacing the secondary scum influent gates and other equipment in the Secondary clarifiers. The plan is to target maintenance on one (1) secondary clarifier in each of the three (3) Secondary Batteries at a time. There are 18 clarifiers in each battery, totaling 54 clarifiers. MWRA plans to maintain a secondary process limit of 700 MGD, which is the capacity of 50 clarifiers in operation.

Deer Island Operations & Maintenance Report (continued)

Residuals Treatment:
Module #2 Digester #4 was taken out of service on August 23 and drained for maintenance to repair a leak in the sludge feed ring piping. Repairs were completed and successfully leak tested by September 20 and the digester was slowly filled with the sludge overflows from the other online digesters. Normal sludge feed to this digester resumed on September 24.

Odor Control Treatment:
Carbon adsorber (CAD) units #2 in the North Pumping Odor Control (NPOC) Facility, #4 in the East Odor Control (EOC) Facility, and #1 in the Residuals Odor Control (ROC) Facility were emptied and refilled with new regenerated activated carbon media this month as part of routine maintenance to replace spent activated carbon.

Energy and Thermal Power Plant:
Overall, total power generated on-site accounted for 23.7% of Deer Island's total power use in the 1st Quarter. Renewable power generated on-site (by Solar, Wind, STGs, and Hydro Turbines) accounted for 23.1% of Deer Island's total electrical power use for the quarter.

This summer, DITP is enrolled in an Eversource Connected Solutions Curtailment (Demand Response) program to reduce a portion of DITP's load from the regional electrical grid during peak energy usage periods. In this program only green energy can be used to offset a committed energy demand or the load shed can be achieved by curtailing existing energy demand sources. DITP is enrolled in this program by curtailing the cryogenic oxygen generation process. To be successful, the oxygen generation process would be taken onffline for the few hours of an event to defer 1.5 MW of power demand. From a treatment perspective, staff would use stored liquid oxygen that was previously produced and stored in the Liquid Oxygen (LOX) tank to feed the secondary activated sludge without impact to the process during this short interruption, then reactivate the cryogenic compressors after the event has ended to restore normal operation. DITP participated in this program during the summer of 2023 and earned over $46,000 by participating. The cryogenic oxygen generation process was taken offline for three (3) hours from 5 p.m. to 8 p.m. on July 15, 16, and 17 for Eversource demand response called events on each of these days.

Annual maintenance at the Thermal Power Plant (TPP) began on August 18 and continued through August 31. Various maintenance activities on the STG, BP-STG, the two (2) Zurn boilers, and the common systems included maintenance on various pumps, valves, and instrumentation throughout the TPP and the DITP heat loop system. On August 18, the main STG was taken out of service for maintenance, as well as starting the maintenance on the offline Boiler 201. On August 23, Boiler 101 was taken out of service to prepare it for maintenance and Boiler 201 was placed into operation until August 25, when the BP-STG, Boiler 201, and heating loop were also taken offline, for a full Thermal Power Plant shutdown to allow for maintenance on all remaining equipment, including the common systems. On August 27, Boiler 201 was placed back into service to bring the heating loop back up to temperature, while the main STG, BP-STG and common systems were put back on-line on August 30 once the contractors completed the final portions of the maintenance. All digester gas produced was flared from August 25 to August 27 during the full TPP shutdown and there were no negative impacts caused by this annual maintenance shutdown.

From July 8 to the evening of July 10, the Wind Turbine Maintenance contractor inspected the turbine blades of Turbine #2 and performed minor blade surface repairs following the inspection.

Regulatory:
An onsite audit was performed by a MADEP inspector on August 21 to review compliance under DITP's Air Operating Permit. The onsite audit included site visits at the Thermal Power Plant (specifically the CTGs and boilers), North Main Pump Station, one of the odor control facilities, as well as the digester gas area and the Residuals complex, including the top of the digesters. The second half of the audit included a thorough review of relevent maintenance records, emissions data reports, monitoring data records, equipment operating and down time records, and all applicable records required under the Air Operating Permit. The audit was completed by the close of business and the inspector was satisified with DITP's compliance in all areas of the permit. Additional information and records that needed to be provided post-site visit was provided to the inspector in a timely manner.

Several other regulators from the MADEP arrived onsite at the DITP on September 27 to conduct an unannounced audit of the treatment plant. The regulators were given a brief plant tour covering the wastewater and residuals treatment facilities, including the Disinfection Basins, the Bypass Gates, the Secondary Treatment aerator and clarifier areas, among other process areas. Some of the topics they were interested in discussing during the meeting portion of their visit included staffing, the status of upcoming construction and special projects, DITP's wet weather response and staffing plan, the future Combined Heat and Power (CHP) plant project, and the status of the wind turbines and other green energy projects.

Clinton Operations & Maintenance Report

Dewatering Building:
The Operations staff and Facilities Specialist changed the lower wash box seal on belt filter press #1. The upper back wash box seal on belt filter press #2 was also replaced. The belt filter sludge press #2 was pressure washed. The contractor met with staff to discuss repair/replacement estimates for the grit and belt filter press sludge conveyor. The contractor replaced ten (10) of the eight (8) inch valves for Gravity Thickener #2 and a three (3) inch water meter.

Chemical Building:
Maintenance staff and the Facilities Specialist assisted Quincy Compressor Tech with the installation of a new head on the compressor unit in the lower Chemical Building, installed a new isolation valve on the bisulfite system, dismantled and jetted the entire soda ash A line and B lines, and also rebuilt the #1 Penn Valley soda ash pump. Staff rebuilt RAS pump #4, installing a new seal and shaft sleeve. The contractor repaired the leaking #2 hypochlorite fill line, corroded steam lines on the Modine heater, the water wash down line and the WAS pump #1 drain line. The contractor replaced a six (6) inch valve on the continuous secondary sludge waste line.

Aeration Basins:
Operations staff cleaned the pH and D.O. probes. The contractor replaced the pH probe on aeration tank #6.

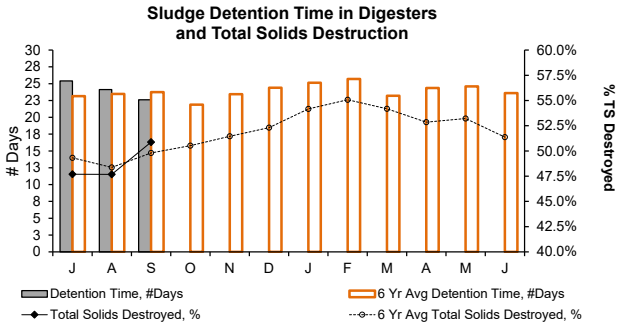
Phosphorus Reduction Building:
Operations and Maintenance staff completed a filter acid wash and cleaned the troughs on #1, #2 and #3 disk filters, cleaned and changed reagents in both CL17 chlorine analyzers, and replaced the Hach 5500 analyzer pump. The contractor replaced the tubing and calibrated the analyzer, and installed a conduit run for additional wiring for alarms from the CL17 chlorine analyzers.

Headworks Building:
Staff replaced the drive bolt in the grit classifier screw. They also cleaned the influent and mechanical bar rack. Staff rebuilt primary pump #4 installing a new power frame head. Staff pumped down the distribution box and were able to successfully clear the WAS line that had been obstructed.

Digester Building:
The Maintenance staff and contractor replaced the collar on the Ovivo mixer. The contractor replaced the Shaw mixing valve on sludge boiler #2, checked all the equipment for proper operation, and greased the floating cover and the Ovivo mixer.

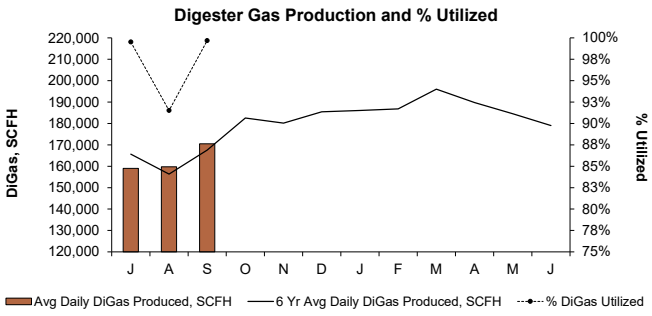
Deer Island Operations and Residuals

1st Quarter - FY25



Total solids (TS) destruction following anaerobic sludge digestion averaged 48.8% during the 1st Quarter, on target (-0.8%) with the 6 year average. Sludge detention time in the digesters was 24.1 days, with an average of 7.7 digesters in service, 2.5% above the 23.5 days detention time.

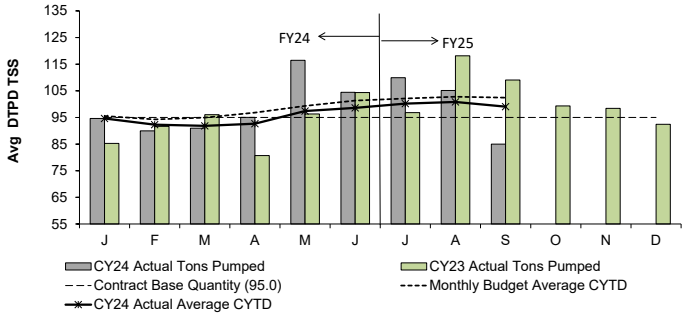
Total solids (TS) destruction is dependent on sludge detention time which is determined by primary and secondary solids production, plant flow, and the number of active digesters in operation. Solids destruction is also significantly impacted by changes in the number of digesters and the resulting shifting around of sludge.



The Avg Daily DiGas Production in the 1st Quarter was on target with the 6 Year Avg Daily DiGas Production. 96.9% of the Digas produced was utilized at the Thermal Power Plant, as only 95.1% of the DiGas was able to be utilized in August as a result of the annual Thermal Power Plant maintenance shutdown.

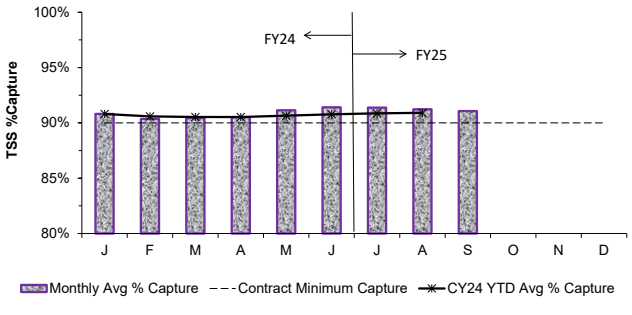
Residuals Pellet Plant

New England Fertilizer Company (NEFCO), a wholly-owned, indirect subsidiary of Synagro Technologies, Inc., operates the MWRA Biosolids Processing Facility (BPF) in Quincy under contract. MWRA pays a fixed monthly amount for the calendar year to process up to 95.0 DTPD/TSS as an annual average (for the extended contract period of January 1, 2024 through December 31, 2034). The monthly invoice is based on 95.0 DTPD/TSS (Dry Tons Per Day/Total Suspended Solids) times 365 days divided by 12 months. At the end of the year, the actual totals are calculated and additional payments are made on any quantity above the base amount. On average, MWRA processes more than 95.0 DTPD/TSS each year (FY24's budget is 103.2 DTPD/TSS and the FY25 budget is 99.9 DTPD/TSS).



The average quantity of sludge pumped to the Biosolids Processing Facility (BPF) in the 1st Quarter was 100.0 TSS Dry Tons Per Day (DTPD), 4.4% below target with the FY25 budget of 104.6 TSS DTPD for the same period. The lower amount of sludge sent to the BPF is partially due to the diversion of three (3) million gallons (an estimated 10 TSS DTPD) of digested sludge to fill the empty Digester #4 in Module #2 when it was returned to operation in late September following repairs to the sludge feed ring piping, which had required the digester to be emptied in August.

The overall CY24-to-date average quantity of sludge pumped is 99.1 DTPD, 3.3% below target



The contract requires NEFCO to capture at least 90.0% of the solids delivered to the Biosolids Processing Facility. The average capture for the 1st Quarter was 91.23% and the CY24-to-date average capture is 90.93%.

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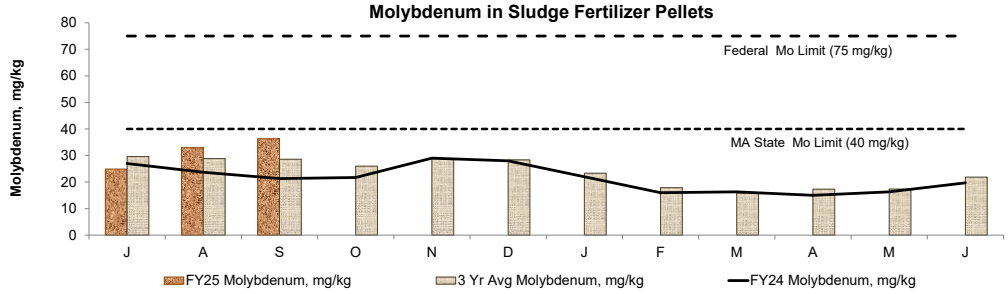


Copper, lead, and molybdenum (Mo) are metals of concern for MWRA as their concentrations in its biosolids have, at times, exceeded regulatory standards for unrestricted use as fertilizer. Molybdenum-based cooling tower water is a significant source of Mo in the sludge fertilizer pellets. The Federal standard for Mo is 75 mg/kg. The Massachusetts Type I biosolids standard for molybdenum was changed from 25 mg/kg to 40 mg/kg in 2016, allowing MWRA to sell its pellets in-state for land application whereas the previous limits forced several months' worth of pellets to be shipped out of state.

Overall, the levels have been below the DEP Type 1 limit for all three (3) metals. For Mo, the level in the MWRA sludge fertilizer pellets during the 1st Quarter averaged 31.4 mg/kg, 8% above the 3 year average, 22% below target with the MA State Limit, and 58% below the Federal Limit.

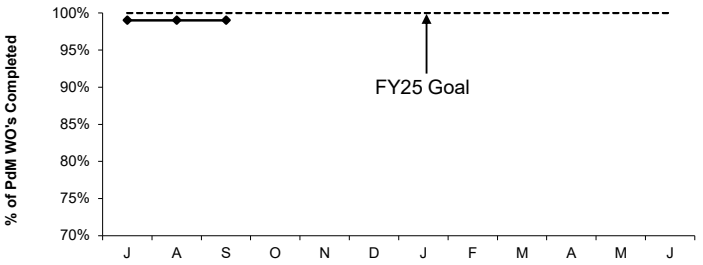
Deer Island Maintenance

1st Quarter - FY25

Productivity Initiatives

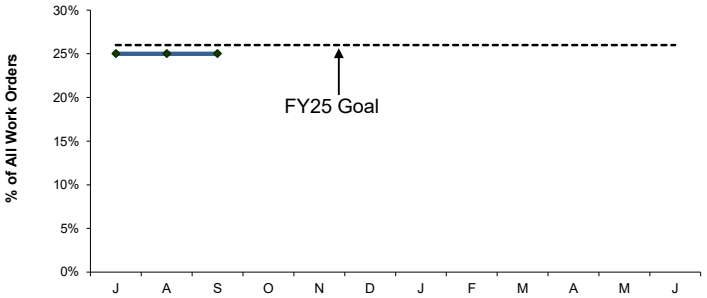
Productivity initiatives include increasing predictive maintenance compliance and increasing PdM work orders. Accomplishing these initiatives should result in a decrease in overall maintenance backlog.

Predictive Maintenance Compliance



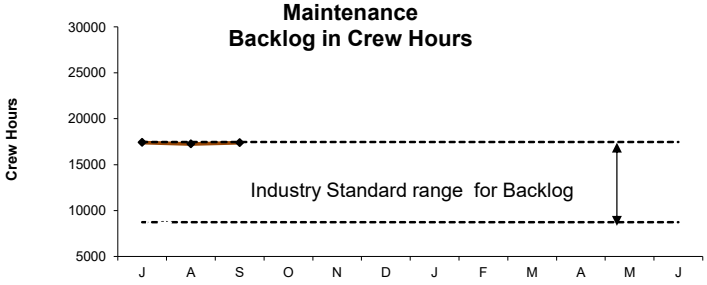
Deer Island's FY25 predictive maintenance goal is 100%. DITP completed 99% of all PdM work orders this quarter. DITP is continuing with an aggressive predictive maintenance program. Deer Island is slightly below our goal this quarter.

Predictive Maintenance



Deer Island's increased FY25 predictive maintenance goal is 26% of all work orders to be predictive. 25% of all work orders were predictive maintenance this quarter. The industry is moving toward increasing predictive maintenance work to reduce downtime and better predict when repairs are needed.

Maintenance Backlog in Crew Hours

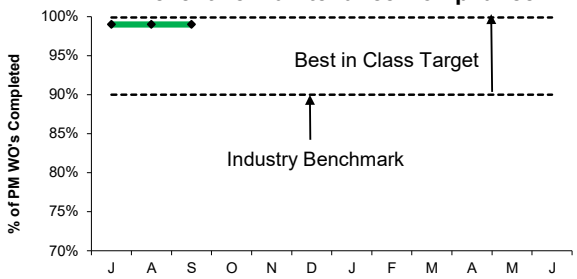


DITP's maintenance backlog at Deer Island is 17,381 hours this quarter. DITP is below the industry average for backlog. The industry Standard for maintenance backlog with 97 staff (currently planned staffing levels) is between 8,730 hours and 17,460 hours. Backlog is affected by (8) Vacancies; (1) Electrician, (1) HVAC Technician and (6) I&C Techicians. Management continues to monitor backlog and to ensure all critical systems and equipment are available.

Proactive Initiatives

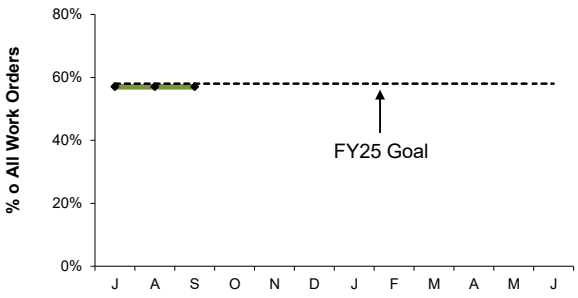
Proactive initiatives include completing 100% of all preventative maintenance tasks and increasing preventative maintenance kitting. These tasks should result in lower maintenance costs.

Preventive Maintenance Compliance



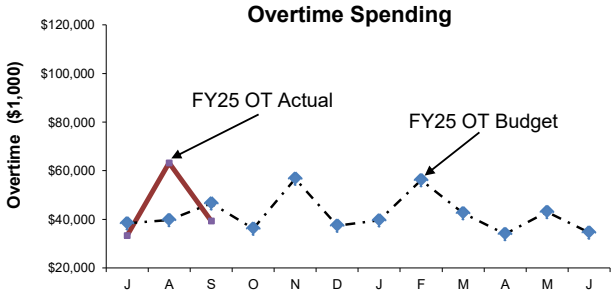
Deer Island's FY25 preventative maintenance goal is 100% completion of all work orders from Operations and Maintenance. DITP completed 99% of all PM work orders this quarter. Deer Island was slightly below our goal, but within Best in Class Target.

Maintenance Kitting



Deer Island's increased FY25 maintenance kitting goal is 58% of all work orders to be kitted. 57% of all work orders were kitted this quarter. Kitting is staging of parts or material necessary to complete maintenance work. This has resulted in more wrench time and increased productivity.

Overtime Spending

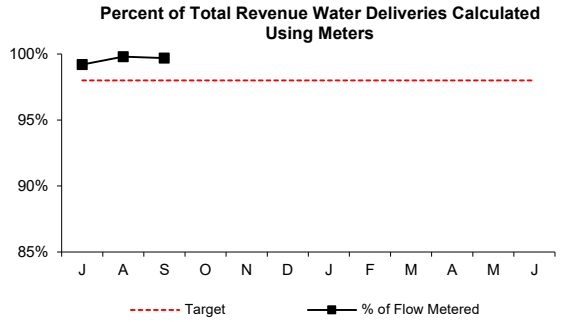


Maintenance overtime was over budget by $11K this quarter and $11k over for the year. Management continues to monitor backlog and to ensure all critical equipment and systems are available. This quarter's overtime was predominately used for Storm Coverage/High Flows, Pump and Grinder Clogging Issues, Primary Gallery Valve Replacement, Instrumentation PM/CM Work, HVAC Cooling Tower Inspection, and Miscellaneous Tank Work.

Operations Division Metering & Reliability

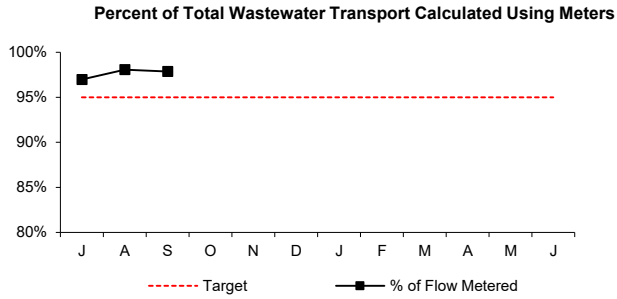
1st Quarter - FY25

WATER METERS



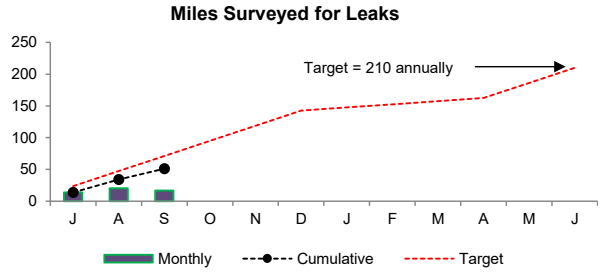
The target for revenue water deliveries calculated using meters is 98%. Estimates are generated for meters that are out of service due to instrumentation problems or in-house and capital construction projects. During Q1 FY25, 99.57% of the water billed was metered flow.

WASTEWATER METERS



The wastewater metering system is now operating in a typical mode following closeout of the replacement project. The target for revenue collection meters is a 95% capture rate which has been achieved consistently since the new meters have been online. In Q1 FY25, 2.36% of the data required estimates, while 97.64% was metered.

WATER DISTRIBUTION SYSTEM PIPELINES



During Q1 FY25, 51.18 miles of water mains were inspected.

Leak Backlog Summary													
Month	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	Totals
Leaks Detected	1	2	2										5
Leaks Repaired	0	2	3										5
Backlog	1	1	0										n/a

During Q1 FY25 5 leaks were detected, and 5 were repaired. Refer to FY25 Leak Report below for details. Also, community service ranging from individual leak location to surveys were conducted for Medford, Boston, Revere and Saugus.

1st Quarter - FY25

Date Detected	Location of Leaks	Repaired
08/20/24	Morton St @ Wellington Hill Rd Mattapan	08/21/24
08/29/24	Felton St @ Water St Waltham	08/30/24
09/18/24	Second St @ Carter St Chelsea	09/18/24
07/31/24	Broadway @ Richardson Lynn	09/30/24
09/26/24	Bryant St @ Shute St Everett	09/30/24

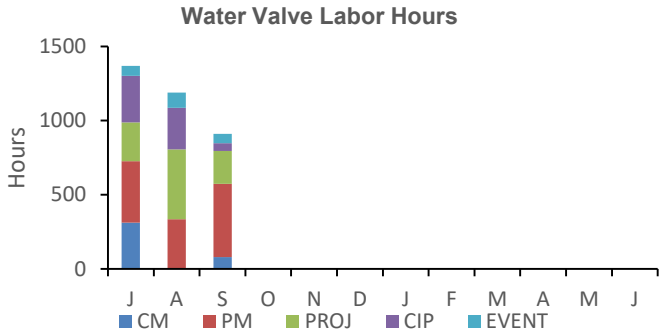
Date Detected	Location of Leaks/Unrepaired

Water Distribution System Valves

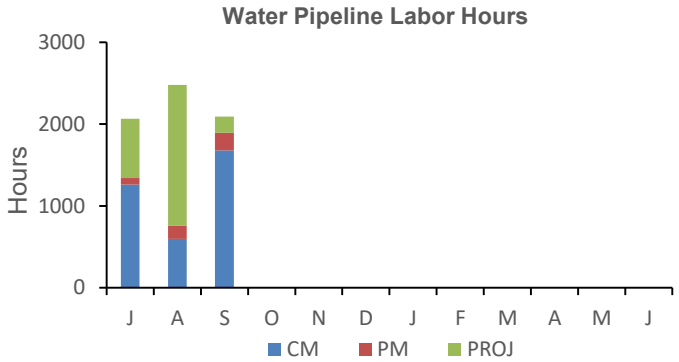
1st Quarter - FY25

Background

Valves are exercised, rehabilitated, or replaced in order to improve their operating condition. This work occurs year round. Valve replacements occur in roadway locations during the normal construction season, and in off-road locations during the winter season. Valve exercising can occur year round but is often displaced during the construction season. This is due to the fact that a large number of construction contracts involving rehabilitation, replacement, or new installation of water lines, requires valve staff to operate valves and assist with disinfection, dechlorination, pressure-testing, and final acceptance. Valve exercising can also be impacted due to limited redundancy in the water system; valve exercising cannot be performed in areas where there is only one source of water to the community meters or flow disruptions will occur.



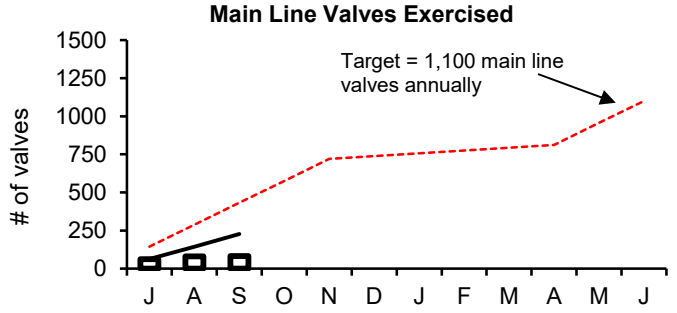
During the 1st Quarter of FY25 there was a total of 3,469 hours worked. Percentage breakdown; Corrective Maintenance 11%, Preventative Maintenance 36%, Project 28%, Capital Improvement Project 19%, Event - Wtr Fountain 7%



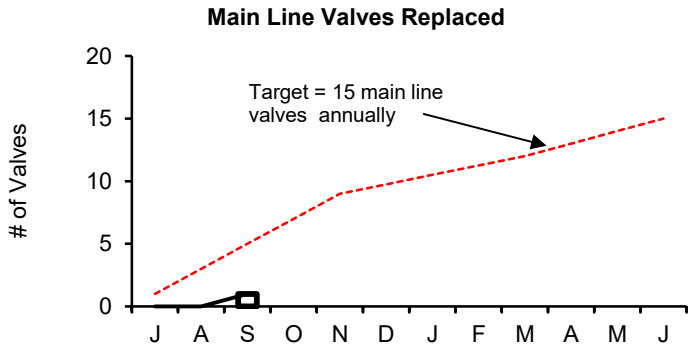
During the 1st Quarter of FY25 there was a total of 6,637 hours worked. Percentage breakdown; Corrective Maintenance 53%, Preventative Maintenance 7%, Project 40%

Type of Valve	Inventory #	Operable Percentage	
		FY24 to Date	FY24 Targets
Main Line Valves	2,255	97.5%	95%
Blow-Off Valves	1,747	98.8%	95%
Air Release Valves	1,546	96.7%	95%
Control Valves	49	100.0%	95%

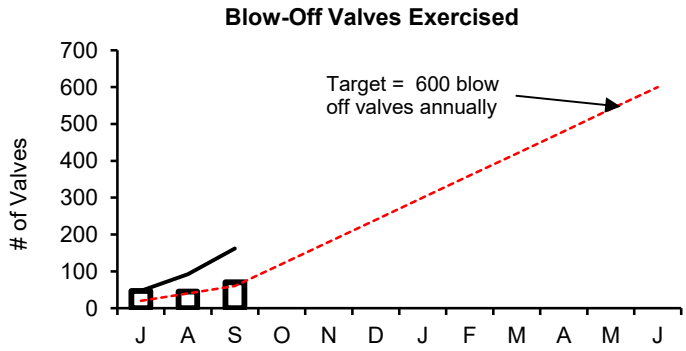
Key to Symbols:
- FY25 Monthly Total
- FY25 Cumulative Total
- FY25 Target



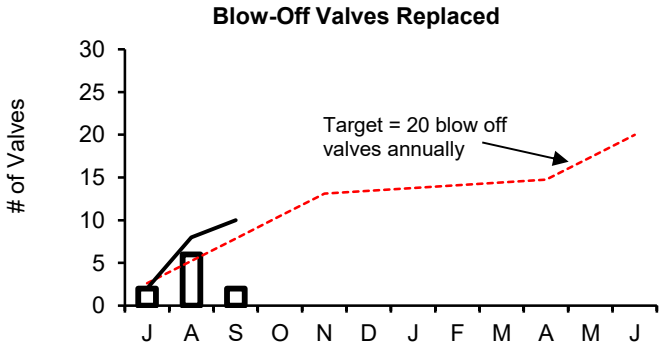
During the 1st Quarter of FY25, 227 main line valves were exercised. The total exercised for the fiscal year to date is 227.



During 1st Quarter of FY25, there was 1 main line valve replaced. The total replaced for the fiscal year to date is 1.



During 1st Quarter of FY25, 162 blow off valves were exercised. The total exercised for the fiscal year to date is 162.



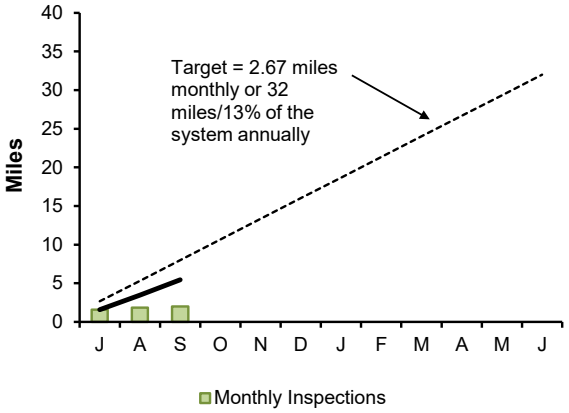
During 1st Quarter of FY25, there were 10 blow off valves replaced. The total replaced for the fiscal year to date is 10.

Wastewater Pipeline and Structure Inspections and Maintenance

1st Quarter - FY25

Inspections

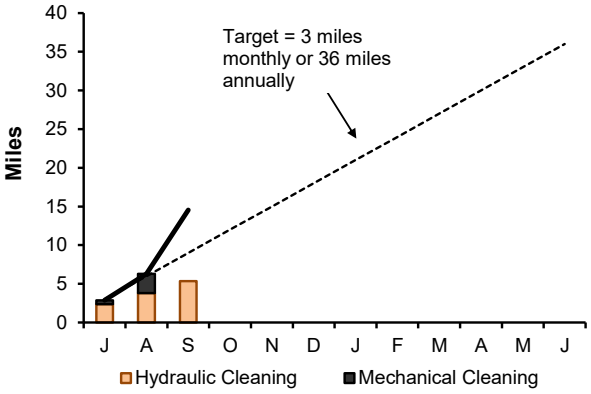
Pipeline Inspections



Staff internally inspected 5.45 miles of MWRA sewer pipe during this quarter.The year to date total is 5.45 miles. No Community Assistance was provided.

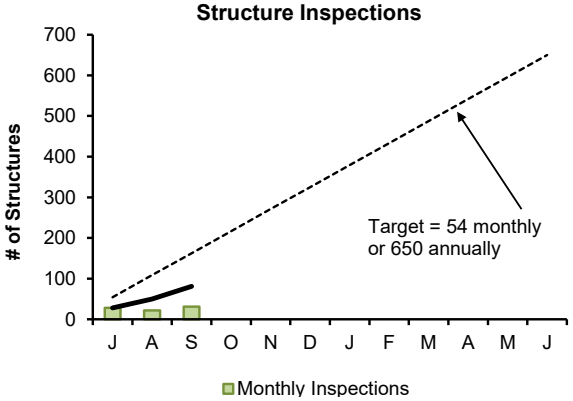
Maintenance

Pipeline Cleaning



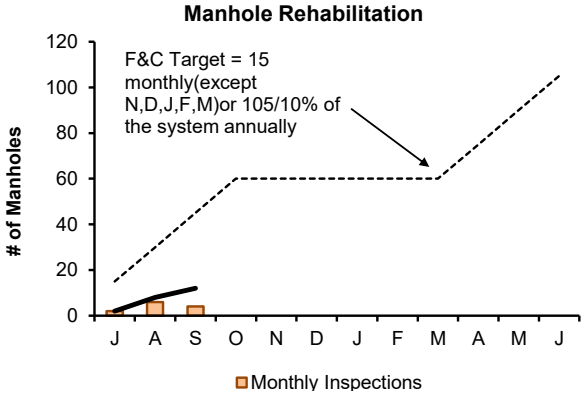
Staff cleaned 14.54 miles of MWRA sewer pipe, and removed 15.25 yards of grit. The year to date total is 14.54 miles. No Community Assistance was provided.

Structure Inspections



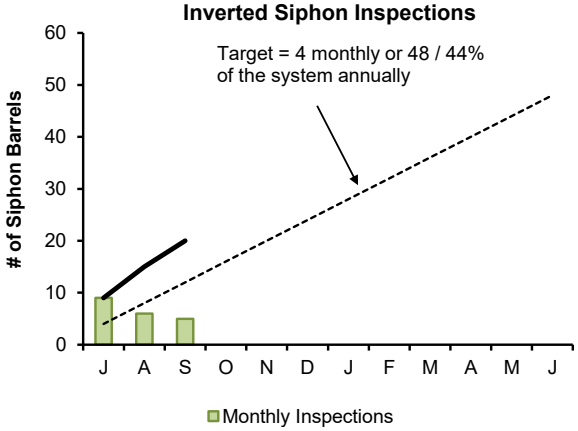
Staff inspected the 36 CSO structures and performed 45 other additional manhole/structure inspections during this quarter. The year to date total is 81 inspections.

Manhole Rehabilitation



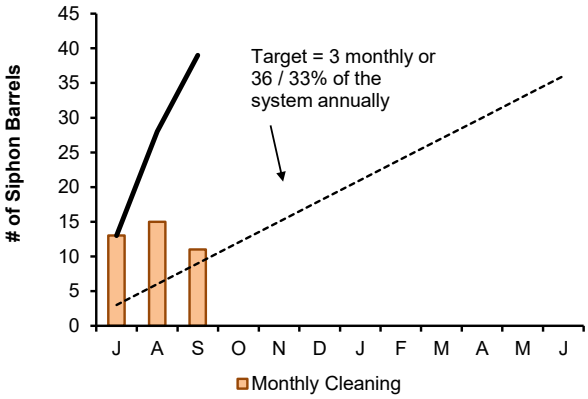
Staff replaced 12 frame and cover replacement this quarter.The year to date total is 12 .

Inverted Siphon Inspections



Staff inspected 20 siphon barrels this quarter. The year total is 20 inspections.

Inverted Siphon Cleaning

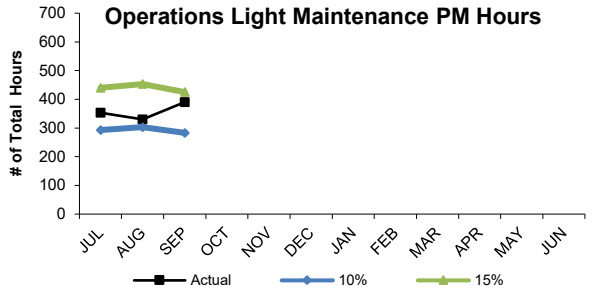


Staff cleaned 39 siphon barrels this quarter.

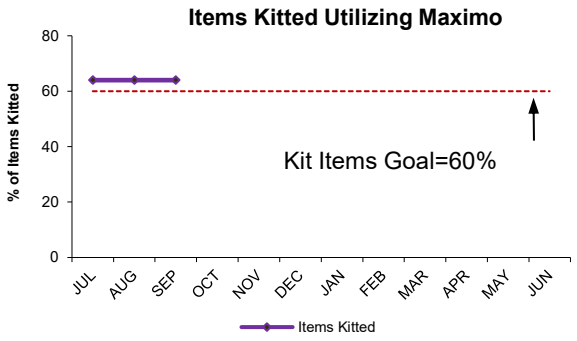
Field Operations' Metropolitan Equipment & Facility Maintenance

1st Quarter - FY25

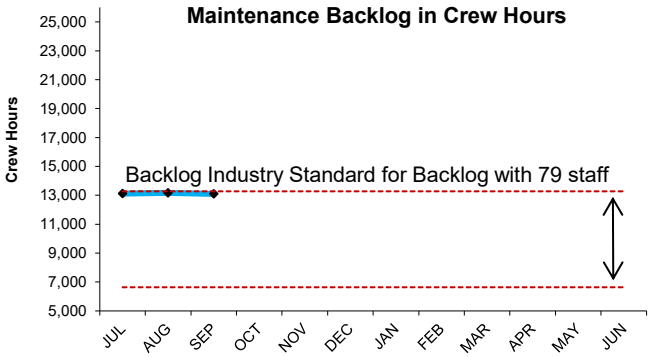
Several maintenance and productivity initiatives are in progress. The goal for the Overall PM completion and the Operator PM completion is 100%. The Operator PM and kitting initiatives frees up maintenance staff to perform corrective maintenance and project work, thus reducing maintenance spending. Backlog and overtime metrics monitor the success of these maintenance initiatives.



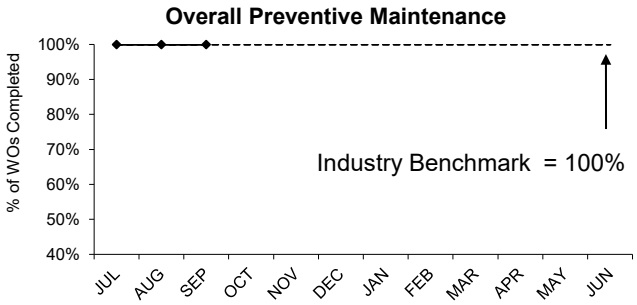
Operations staff averaged 358 hours per month of preventive maintenance during the 1st Quarter of FY25, an average of 12% of the total PM hours for the 1st Quarter, which is within the industry benchmark of 10% to 15%.



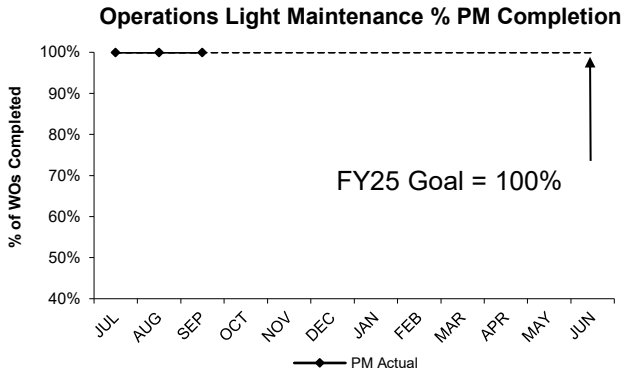
Operations' FY25 maintenance kitting goal has been set at 60% of all work orders to be kitted. Kitting is the staging of parts or material neccesary to complete maintenance work. In the 1st Quarter of FY25, 64% of all applicable work orders were kitted. This resulted in more wrench time and increased productivity.



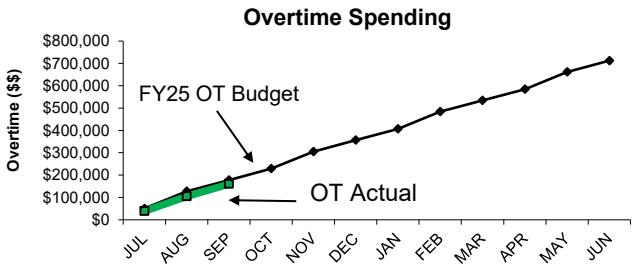
The 1st Quarter of FY25 backlog average is 13,127 hours. Which is within the industry benchmark of 6,636 to 13,275 hours. The current backlog is due to vacancies and several large maintenance projects.



The Field Operations Department (FOD) preventive maintenance goal for FY25 is 100% of all PM work orders. Staff completed 100% of all PM work orders in the 1st Quarter of FY25.



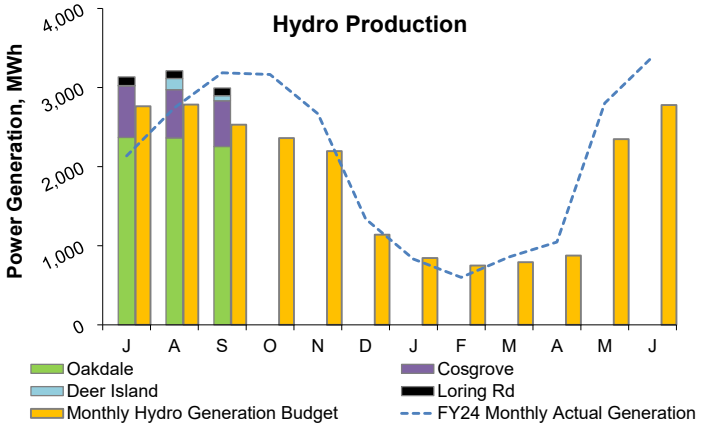
Wastewater Operations complete light maintenance PM's which frees up maintenance staff to perform corrective maintenance. Operations' FY25 PM goal is completion of 100% of all PM work orders assigned. Operations completed 100% of PM work orders in the 1st Quarter of FY25.



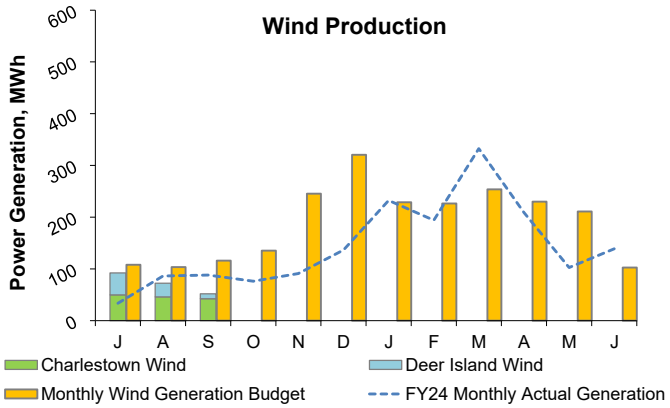
Maintenance overtime was $6,126 under budget on average, per month, for the 1st Quarter of FY25. Overtime is used for critical maintenance repairs and wet weather events. The overtime budget through the 1st Quarter of FY25 is $178,115. Overtime spending was $159,738 which is $18,377 under budget for the fiscal year.

Renewable Electricity Generation: Savings and Revenue

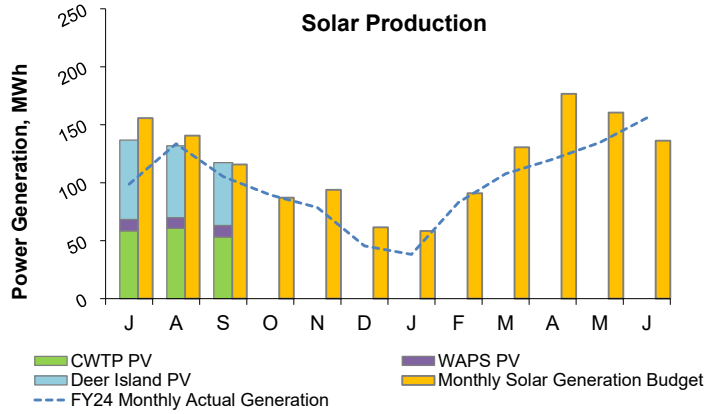
1st Quarter - FY25



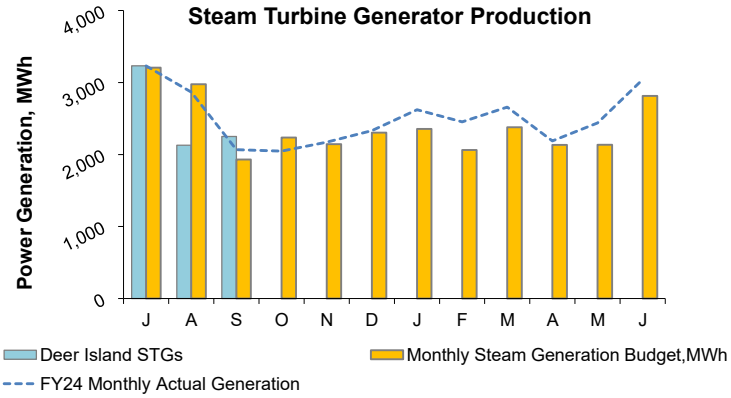
In Quarter 1, renewable energy produced from hydroelectric turbines totaled 9,420 MWh, 17% above budget. However, most data is still preliminary and not based on final totals due to utility billing delays.



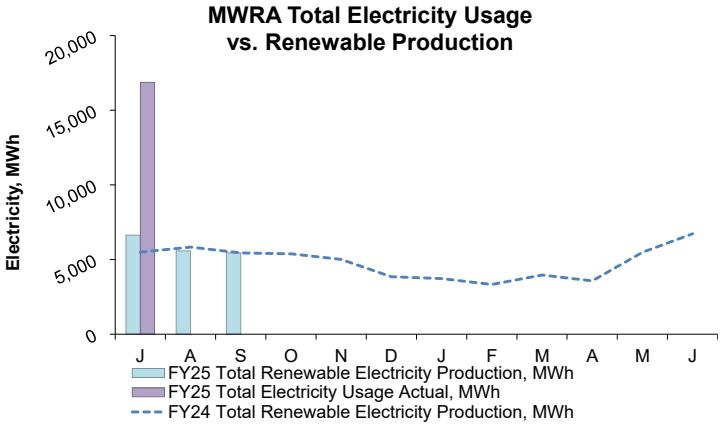
In Quarter 1, wind turbine production totaled 217 MWh, 34% below budget. Charlestown Wind Turbine production is an estimate, final billing has not been received. Deer Island Turbine #1 has been out of service since April 2022, and was heavily damaged following a braking failure on May 29, 2023. Deer Island Turbine #2 was also out of service for corrective maintenance during much of August.

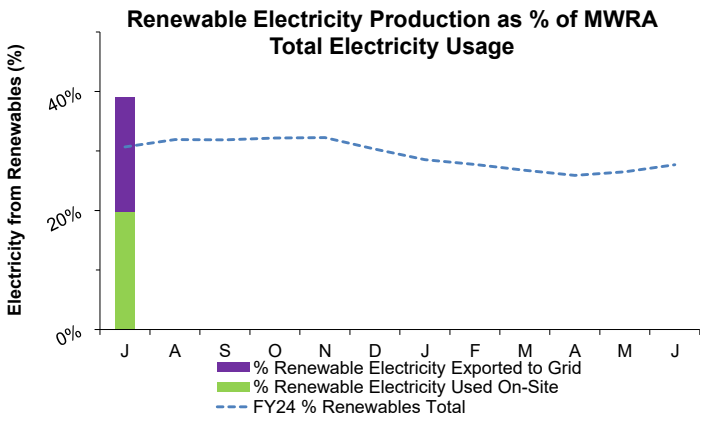


In Quarter 1, the renewable energy produced from all solar PV systems totaled 386 MWh; 6% below budget[1]. The Deer Island Residuals Odor Control roof mounted array has been offline since September 2022 due to a failed inverter.



In Quarter 1, the renewable energy produced from all steam turbine generators totaled 7,612 MWh; 6% below budget[1]. Steam production was reduced in August during routine maitnenance.





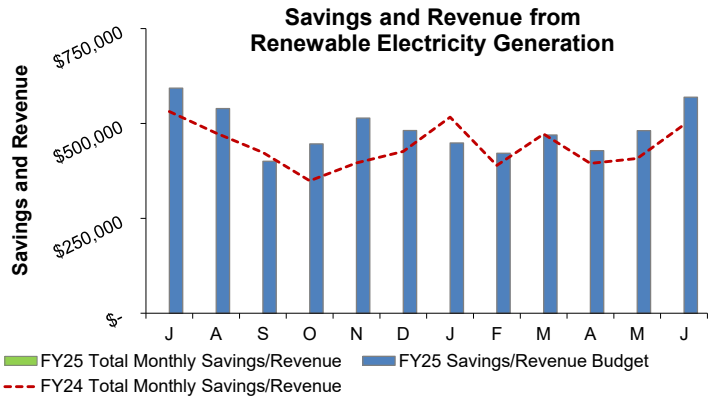
In Quarter 1, total renewable electricity production is estimated to be 17,769 MWh, which is 4% above budget for the quarter. This is based on internal estimates for at least one month of output at all hydroturbines, besides Deer Island, and the Charlestown Wind Turbine. Several statements for the Oakdale facility have not been received in FY25 due to previous utility metering issues that caused billing delays. The MWRA total electricity usage is the sum of all electricity purchased for Deer Island and FOD plus electricity produced and used on-site at these facilities. Approximately 99% of FOD electrical accounts are accounted for by actual billing statements; minor accounts that are not tracked on a monthly basis such as meters and cathodic protection systems are estimated based on this year's budget.

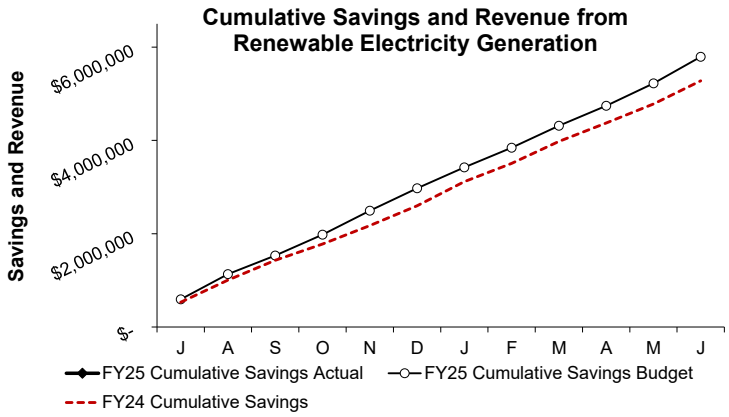
All renewable electricity generated on DI is used on-site (this accounts for more than 50% of MWRA renewable generation). Almost all renewable electricity generated off-DI is exported to the grid.

Notes: 1. Budget values are based on historical averages for each facility and include operational impacts due to maintenance work.

Renewable Electricity Generation: Savings and Revenue

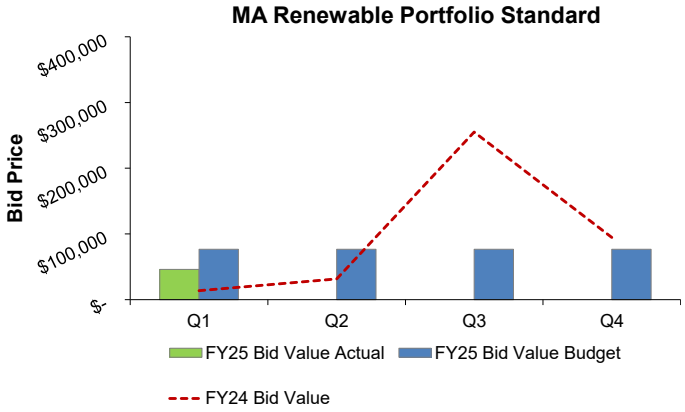
1st Quarter - FY25

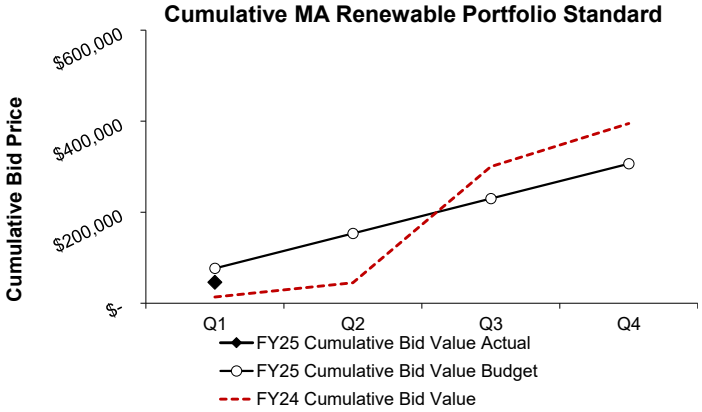




There are no months in FY25 with complete data to report.

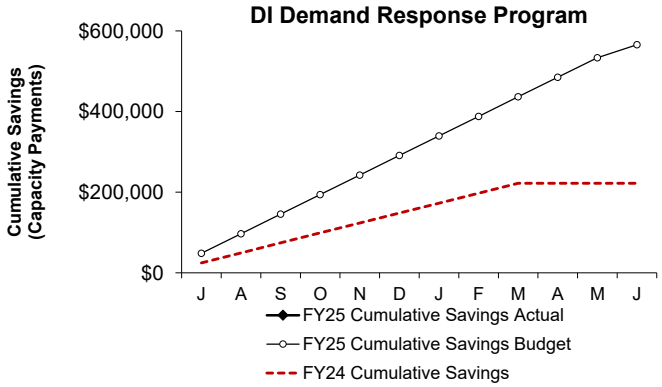
Savings and revenue[1] from all renewable energy sources include wind turbines, hydroelectric generators, solar panels, and steam turbines (DI). This includes savings and revenue due to electricity generation (does not include avoided fuel costs and RPS RECs).
The use of DITP digester gas as a fuel source provides the benefit of both electricity generation from the steam turbine generators, and provides thermal value for heating the plant, equivalent to approximately 5 million gallons of fuel oil per year (not included in charts above).

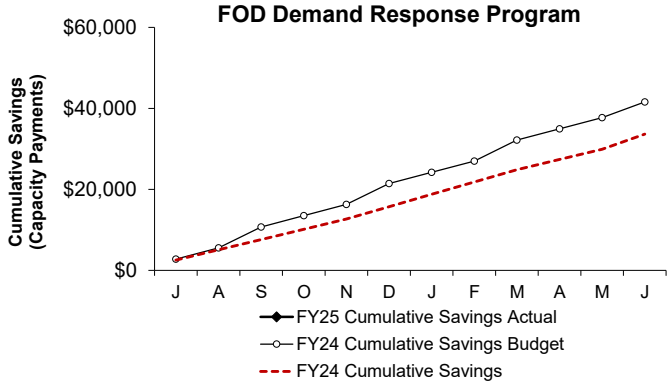




Bids were awarded during the 1st Quarter[2] of FY25 from MWRA's renewable energy assets; 1,412 Q4 FY24 Class I Renewable Energy Certificates (RECs) were sold for a total value of $46,033 RPS revenue; which was 40% below budget[3] for the Quarter. No Class II RECs are sold during Q1 and are instead banked for future sale. REC values reflect the bid value on the date that bids are accepted. Cumulative bid values reflects the total value of bids received to date.

*MWRA's SRECs have transitioned to the Class 1 REC category starting in FY23.



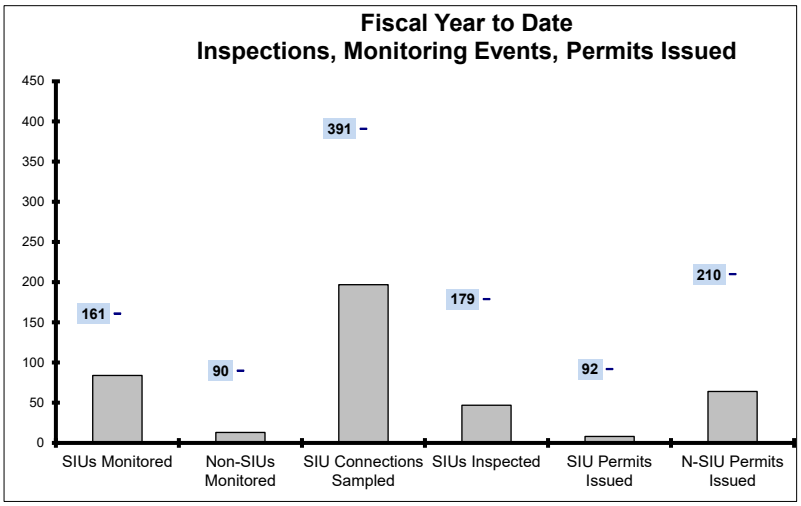


Currently Deer Island, Loring Rd, Brutsch Hydro, and JCWTP participate in the ISO-New England Demand Response Programs. By agreeing to reduce demand and operate the facility generators to help reduce the ISO New England grid demand during periods of high energy demand, MWRA receives monthly Capacity Payments from ISO-NE. When MWRA operates the generators during an ISO-NE called event, MWRA also receives energy payments from ISO-NE. No capacity payments have been received in FY25.

Notes:
1. Savings and Revenue: Savings refers to any/all renewable energy produced that is used on-site therefore saving the cost of purchasing that electricity, and revenue refers to any value of renewable energy produced that is sold to the grid.
2. Only the actual energy prices are being reported. Therefore, some of the data lags up to 3 months due to timing of invoice receipt.
3. Budget values are based on historical averages for each facility and include operational impacts due to maintenance work.

Toxic Reduction and Control

1st Quarter - FY25



EPA Required SIU Monitoring Events
for FY25: 159
YTD : **84**

Required Non-SIU Monitoring Events
for FY25: 90
YTD : **13**

SIU Connections to be Sampled
For FY25: 387
YTD: **197**

EPA Required SIU Inspections
for FY25: 177
YTD: **47**

SIU Permits due to Expire
In FY25: 63
YTD: **8**

Non-SIU Permits due to Expire
in FY25: 272
YTD: **64**

Significant Industrial Users (SIUs) are MWRA's highest priority industries due to their flow, type of industry, and/or their potential to violate limits. SIUs are defined by EPA and require a greater amount of oversight. EPA requires that all SIUs *with flow* be monitored at least once during the fiscal year.

The "SIU Monitored" data above, reflects the number of industries monitored; however, many of these industries have more than one sampling point and the "SIU Connections Sampled" data reflect samples taken from multiple sampling locations at these industries.

EPA requires MWRA to issue or renew 90 percent of SIU permits within 120 days of receipt of the application or the permit expiration date - whichever is later. EPA also requires the remaining 10 percent of SIU permits to be issued within 180 days.

Number of Days to Issue a Permit								
	0 to 120		121 to 180		181 or more		Permits Issued	
	SIU	Non-SIU	SIU	Non-SIU	SIU	Non-SIU	SIU	Non-SIU
Jul	4	20	0	0	0	11	4	31
Aug	2	14	1	0	0	3	3	17
Sep	1	14	0	1	0	4	1	19
Oct	0	0	0	0	0	0	0	0
Nov	0	0	0	0	0	0	0	0
Dec	0	0	0	0	0	0	0	0
Jan	0	0	0	0	0	0	0	0
Feb	0	0	0	0	0	0	0	0
Mar	0	0	0	0	0	0	0	0
Apr	0	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0
Jun	0	0	0	0	0	0	0	0
% YTD	88%	72%	13%	1%	0%	27%	8	67

TRAC's annual monitoring and inspection goals are set at the beginning of each fiscal year but they can fluctuate due to the actual number of SIUs.

In addition to the Annual SIU inspections required under TRAC's EPA approved Industrial Pretreatment Program, other inspections are usually undertaken, including for enforcement, permit renewal, follow up, temporary construction dewatering sites, group/combined permit audits, spot, sampling locations, visit only and out of business facility.

Monitoring of SIUs and Non-SIUs is dynamic for several reasons, including: newly permitted facilities; sample site changes requiring a permit change; changes in operations necessitating a change in SIU designation; non-discharging industries; a partial sample event is counted as an event even though not enough sample was taken due to the discharge rate at the time; and sometimes increased/decreased inspections lead to permit category changes requiring additional monitoring events

This is the first quarter of the MWRA fiscal year, FY25.

In this quarter, 75 permits issued.
There were 8 SIUs, of which 7 were issued on time.
There were 67 non-SIUs of which 48 were issued on time, with 18 late beyond 180 days.

All but 1 of the SIU permits were issued within the 120-day timeframe. The 1 SIU issued after 120 days due to outstanding permit fees holding up the issuance of the permits.

In FY24, there have been 31 completely new permits issued: 8-LFLP, 6-02 N-SIUs, 14-Dental, 1-SIU, 2-DEW

For the Clinton Sewer Service area, there was 0 SIU permits issued during the FY24 fiscal year.

Permit Categories, as defined in CMR 10.101(2):

SIU- Significant Industrial User

DEW - Category 12 Temporary Construction Site Dewatering Permit

LFLP - Category 10 Non-Significant Industrial User with Low Flow and Low Pollutant

02 N-SIU - Category 2 Non-Significant Industrial User

Dental - Category D1 Dental Group Permit

G2 - Category G2 Group Permit for Food Processing

Field Operations Highlights

1st Quarter - FY25

METRO WATER OPERATIONS AND MAINTENANCE

Valve Program: Valve operations to support in-house work including providing isolations on: Section 94 (Blow Off Replacement), Section 73 (Blow off Replacement), Section 77 (Blow off Replacement) Section 58 (Leak Repair), WASM10 (Leak Repair). CIP Contractors were supported by isolation and dewatering of portions of Section 29 and 89 (Contract 7117), Section 101 (Contract 7457), Section 23, 24 & 47 (Contract 6392) and W14 & W16 (Contract 7563). Other work included the replacement of hatches on the Fells Storage Tank, Meter 32 isolation for Somerville, Meter 183 fire flow valve repair and mainline valve exercising of 17 water main sections.

Water Pipeline Program: Staff completed Blow-Off replacements in Dedham (Section 77) and Mattapan (Sections 94 and 73). Additional work included hatch replacement on Fells Water Storage Tank, leak repairs on the Section 58 (36-inch main) in Mattapan and WASM10 in Waltham.

SCADA

Water System Work

- Continued technical support for JCWTP PLC replacement project; Continued support for the PRV improvement project; support for the Wachusett Lower Gate House Project and Steel Tank Project; supported ozone generator PLC upgrades and soda ash panel work at CWTP; made improvements to Fells S:CAN program configuration; resolved alarm acknowledge issue in OCC

Wastewater System Work

- Continued work on network management improvements; continued work on Braintree/Weymouth Pump Station Improvements Project; continued testing the network monitoring system; improved SCADA code at Alewife; improved alarming on Nut Island Odor Control System; improved fuel monitoring system at Framingham Pump Station; improved communication at Quincy and Hough's Neck Pump Stations.

ENVIRONMENTAL QUALITY-WATER

- Algae: Starting July 9th and until mid-September, elevated levels of *Chrysosphaerella* algae continued to be detected at Quabbin Reservoir. DCR increased algae monitoring, two days a week and staff provided water quality updates throughout this quarter. CVA communities received metallic-taste complaints from July through September due to elevated levels of *Chrysosphaerella* in Quabbin. Staff performed sampling of algal toxin and taste and odor compounds at Cosgrove Intake, CWTP and BWTF raw water inlet taps, CWTP and LMS finished water taps. Seasonal, visual inspection of standby reservoirs for cyanobacteria was also performed in this quarter.
- Regulatory Sampling: Performed sampling for monitoring programs including EPA's Unregulated Contaminant Monitoring Rule 5, Disinfection Byproducts Rule, and Optimal Water Quality Parameters. Staff initiated planning for the last round of UCMR5 sampling in 2025 with site visits, and development of training for member communities, to be delivered in December 2024.
- Non-Regulatory: MWRA voluntarily sampled at locations near residences with lead results over the lead action level. All samples met pH and alkalinity targets. Staff conducted monthly sampling of MWRA's compliance taps for the nitrification-monitoring program.
- Community Support: Staff assisted Quincy with investigative sampling at a TCR site with coliform positives and performed ATP testing on water sampled at three (3) sites in proximity to the coliform positive site. Staff also assisted Brookline with a complaint sampling. All field results were typical.
- Internal Support: The CWTP lead pipe-rig study, sample collection events continued this quarter. Staff conducted pipe clearance sampling at six sites in Newton and Watertown. Staff conducted clearance sampling at Fells tank and Norumbega Tank Dewatering Line. Water quality results were typical. Staff participated in the Annual NEWWA drinking water taste test in North Falmouth, MA on September 17.

- Projects: Staff performed sampling for Legionella as part of a collaborative research study with Georgia Tech and the University of Texas.
- Contaminant Monitoring System (CMS): This quarter, staff responded to three CMS alarms and followed routine response protocols during each event. Quarterly CMS sample collections was performed this quarter. Staff in coordination with Verizon began the installation and roll-out of new routers and modems at active CMS sites. Staff provided a presentation on MWRA's contaminant monitoring system to the Board of Directors to commemorate 9/11. Reviewed the Route 12 intake rehabilitation design and projected cost for a new task order. In September, staff assisted with active monitoring of water quality from the drawdown of a Norumbega tank cell using the CMS mobile trailer.
- Wachusett & Quabbin Buoys: Staff visited Quabbin and Wachusett reservoirs to perform routine maintenance and equipment upgrades on buoy equipment. A purchase order was issued to a vendor this quarter for a new fixed depth buoy to be procured in support of reservoir monitoring during MWRA's dam removal project. This quarter, staff in coordination with DCR and MWRA Operations staff determined the location for the installation and operation of QA's fixed depth buoy during the dam removal project.
- Data Management Group (http://wqdmgdev.mwra.net/): Staff submitted monthly DEP and DPH reports on schedule and fulfilled eight data requests. TCR data from Chicopee and data collected from water quality buoys were migrated to PostgreSQL databases. Programming to automate the Weekly water quality report continued this quarter.
- Environmental / Chemical Contract Management:

  Permitting/Environmental Compliance: A five-year review of the Southborough SPCC plan was performed this quarter, and a final draft submitted to the vendor. The Oakdale SPCC 5-year plan was finalized this quarter.

  Chemical Contract Management: Staff held annual fire department inspections for Southborough, with no issues to note and the permits were posted. Annual fire department permits were also submitted for Wachusett Dam and Cosgrove this quarter.

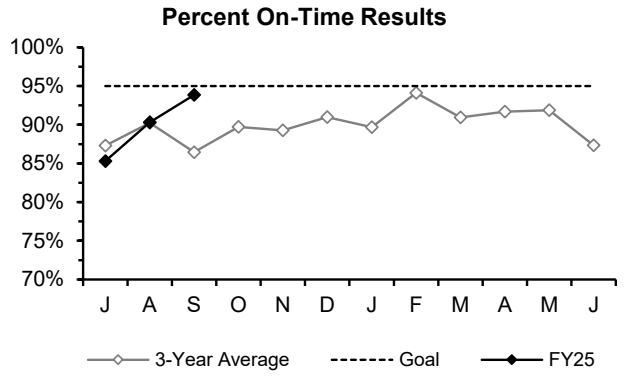
ENVIRONMENTAL QUALITY-WASTEWATER

- Ambient Monitoring: Three summer water column surveys, benthic (sediment) surveys of Boston Harbor and Massachusetts Bay, triennial lobster survey, and the retrieval of mussels in a bioaccumulation study were conducted in July-September.
- Harbor/CSO Receiving Water Monitoring: The annual report on water quality in the Charles River, and the Alewife Brook/Mystic River was submitted to EPA and DEP on July 15, fulfilling the requirement in the CSO Variances for those water bodies.
- Permitting and Compliance Reporting: Renewed Variances for CSO discharges to the Charles River and Alewife Brook/Mystic River, covering September 1, 2024 to August 31, 2029, were issued by MassDEP on August 30.
- Coordination with other MWRA Departments: Assisted Engineering & Construction by participating in community CSO coordination meetings and preparation of presentations. Coordinated with MIS to facilitate the completion of the transition from Oracle Discoverer to SAP Webi, and helped make sure new mwra.com met all regulatory requirements. Worked with Field Operations to improve the design of forms to collect SSO data. Prepared appendices of influent and effluent data for the annual industrial waste report for TRAC.
- Cooperation with other agencies: Staff worked with other members of the NEWEA CSO/Wet Weather committee to review abstracts and plan the program for the triennial specialty conference this fall. Hosted the fall meeting of the Massachusetts Bays National Estuary Partnership (MassBays) Management Committee and Science and Technical Advisory Committee at Deer Island.

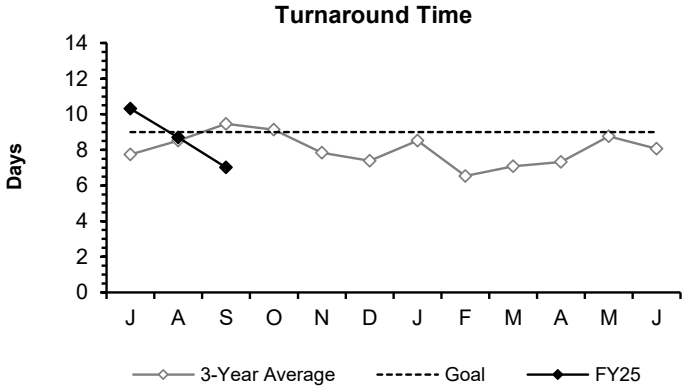
Laboratory Services

1st Quarter - FY25

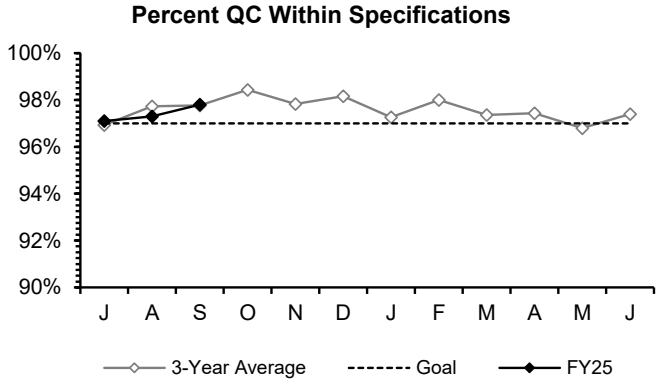
Laboratory Services supports the laboratory sampling, testing, and consulting needs of various client groups primarily in the Operations Division. This includes drinking water transmission and treatment, wastewater collection and treatment, wastewater residuals management, industrial-pretreatment monitoring, and environmental quality.



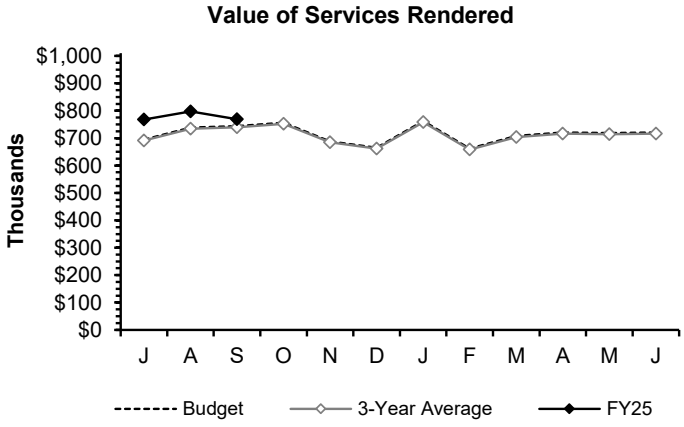
The Percent On-Time measurement assesses performance against internal client due dates. These due dates are shorter than the compliance reporting requirements to allow for internal review of the data.



Turnaround Time measures the average time from sample receipt to sample completion.



Percent QC Within Specifications measures the fraction of Quality Control tests that met required limits during the month.



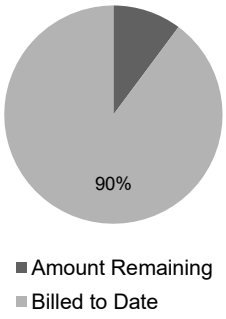
Value of Services Rendered models the true cost of the lab work performed, including fringe benefits that are not a part of the Laboratory Services budget.

School Lead Program: During the 1st quarter of FY25, MWRA's lab completed 260 tests from 49 schools and childcare facilities in 24 communities. Since 2016, MWRA's Laboratory has conducted over 44,800 tests from 664 schools and daycares in 45 communities. We have also completed 1023 home lead tests under the DPH sampling program since 2017.

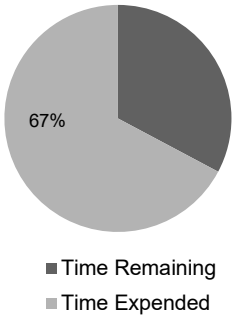
CONSTRUCTION PROGRAMS

Engineering & Construction
Projects In Construction
1st Quarter - FY25

Cost



Time



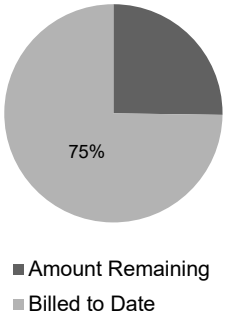
Carroll Water Treatment Plant SCADA Improvements

Project Summary: The current SCADA control equipment has reached the end of its useful life, and future vendor support for the installed PLC base is no longer guaranteed. This contract includes the supply and installation of replacement instrumentation panels, PLC's, UPS backup power, fiber-optic communication network, wiring between the existing panels, and new equipment and refurbishment of the operator control room. In addition, a new server room equipped with HVAC and fire suppression is being constructed to house redundant computer hardware supporting active and backup SCADA systems.

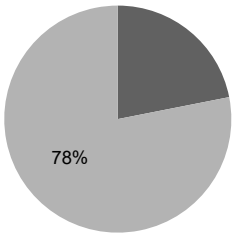
Contract Amount: $13,626,674.07 *Contract Duration:* 1,675 Days

Notice to Proceed: 1-Sep-21 *Contract Completion:* 3-Apr-26

Cost



Time



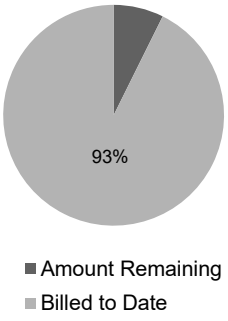
Section 89 Replacement Pipeline

Project Summary: This project will include replacement of a 10,500-foot portion of PCCP with class IV reinforcing wire, line valves and appurtenances, and abandonment of the 118-year old, 24-inch diameter cast iron Section 29 pipeline.

Contract Amount: $36,131,912.71 *Contract Duration:* 1,475 Days

Notice to Proceed: 5-Aug-21 *Contract Completion:* 19-Aug-25

Cost



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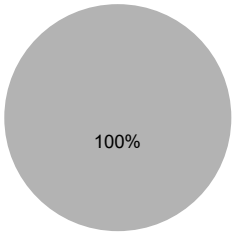


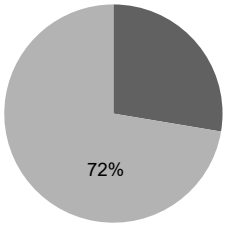
Low Service PRV Improvements

Project Summary: This project will demolish the existing Nonantum Road and Mystic Valley Parkway PRV vault structures, including four 24-inch PRVs and appurtenances, and construct new, larger cast-in-place vaults. At Mystic Valley Parkway, two 42-inch PRVs and at Nonantum Road two 30-inch PRVs, isolation valves, piping, and other appurtenances will be installed. Additionally, a new master meter will be constructed at the Mystic Valley Parkway pressure reducing valves and the existing master meter located near the Nonantum Road pressure reducing valves will be upgraded to accommodate the increased flow.

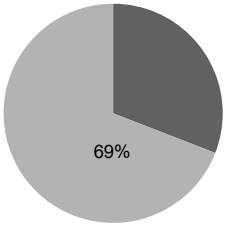
Contract Amount: $12,205,837.64 *Contract Duration:* 990 Days

Notice to Proceed: 14-Jul-21 *Contract Completion:* 30-Mar-24

Cost



Time



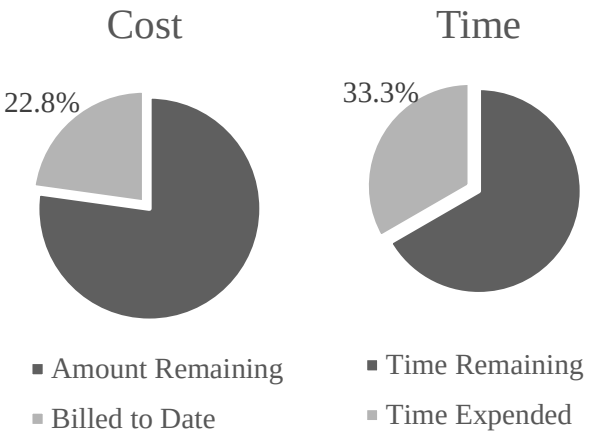
Construction of Water Mains – Section 101

Project Summary: This construction contract consists of a new 36-inch diameter water main and appurtenances extending from MWRA's Meter 182 at the Waltham/Lexington town line down Lexington Street to Totten Pond Road, where it will connect to Waltham's water system. This new water main will provide sufficient capacity to maintain water service to Waltham during the anticipated shutdown of MWRA's WASM 3 pipeline and the Lexington Street Pumping Station for future rehabilitation.

Contract Amount: $34,231,736.35 *Contract* Duration: 1175 Days

Notice to Proceed: 12-Jul-22 *Contract Completion: 29*-Sep-25

Deer Island Wastewater Treatment Plant
Projects In Construction
1st Quarter – FY25

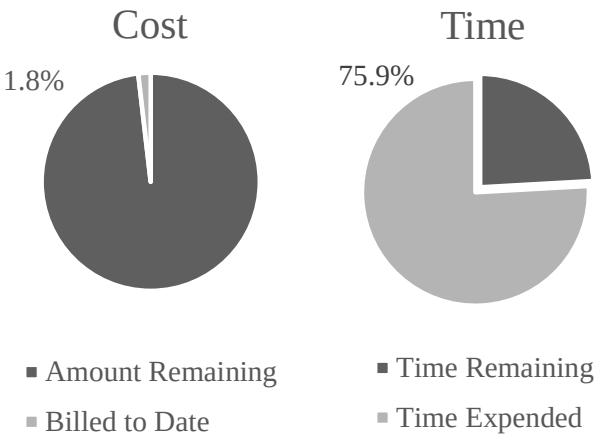


7395 - Clarifier Rehabilitation Phase 2

Project Summary: This project involves the replacement of the original remaining scum and sludge equipment, as follows: over 400 Primary Clarifier influent, effluent, and dewatering gates; 384 primary effluent cross channel gate actuators; approximately 450 secondary scum influent gates and actuators; wear strip rails,768 head shaft and idler sprockets; over 3000 linear feet of influent channel aerations piping systems; 360 head shafts collector drives and chains; return sludge line vent piping; approximately 400 concrete and aluminum hatches and associated electrical and control systems.

Contract Amount: $289,595,007 *Contract Duration:* 1710 Days

Notice to Proceed: 10-Mar-23 *Contract Completion:* 14-Nov-27



7734 - Deer Island Treatment Plant Roofing Replacement at Various Buildings

Project Summary: This project includes the removal and replacement of 86,500 square feet of roofing on the following buildings: Cryogenic Compressor; Gravity Thickener Complex; Thermal/Power Plant; Main Switchgear; and Digester Complex Modules 1, 2 and 3. Buildings to be reroofed in the Digester Complex include: Module 1- Digester Equipment Complex Roof, Elevator/Stair Lobby Roof and Elevator Penthouse Roof; Module 2 - Digester Equipment Complex Roof; and Module 3- Digester Equipment Complex Roof and Elevator Penthouse Roof.

Contract Amount: $8,873,000 *Contract Duration:* 365 Days

Notice to Proceed: 28-Dec-2023 *Contract Completion: 27-Dec-2024*

CSO CONTROL PROGRAM

1st Quarter – FY25

Overview

In compliance with milestones in the Federal District Court Order, all 35 projects in the CSO Long-Term Control Plan (LTCP) were complete as of December 2015. Subsequently, MWRA completed a multi-year CSO post-construction monitoring program and performance assessment, filing the Final CSO Post Construction Monitoring Program and Performance Assessment Report with the Court and submitted copies to EPA and DEP in December 2021. April 2024 Annual report shows an 88% reduction in CSO in a typical year, from 3.3 billion gallons to 397 million gallons, with 73 of 86 outfalls meet or materially meet the LTCP goals (6 of the 73 materially meet) for CSO activation frequency and volume. MWRA and its member CSO communities are moving forward with plans to bring 7 of the 13 (formerly 16) CSOs in line with the LTCP goals. With respect to the remaining 6 challenging CSO outfalls, MWRA and its CSO Consultant (AECOM) continue to investigate alternative to move closer to LTCP goals.

MWRA CSO Performance Assessment

- In November 2017, MWRA signed a contract for CSO Post-Construction Monitoring and Performance Assessment with AECOM Technical Services, Inc. The contract includes CSO inspections, overflow metering, hydraulic modeling, system performance assessments and water quality impact assessments, culminating in the submission of a report to EPA and MassDEP in December 2021 verifying whether the LTCP goals are attained.

- AECOM continues to support efforts to advance project identified to meet performance goals at 7 of the 13 CSOs that don't meet LTCP goals, evaluate alternatives for the remaining 6 challenging sites, and predict and report on annual CSO discharges.

- Submit in December 2024 a Supplement to the Post-Construction Monitoring and Performance Assessment report with the MWRA's final results and conclusions as to the 16 outfalls that have not met their respective LTCP goals.

Court Ordered Levels of CSO Control

Progress on the work to comply with the court ordered levels of CSO control is discussed with the EPA/MassDEP at progress meetings held quarterly. The last meeting was held on 9/26/2024 concluding the quarterly meetings.

Ongoing Projects as of September 30, 2024

- *East Boston CSO Control*: As part of the East Boston CSO a FAA/MOU was executed in June 2021 for $2.1M, BWSC design and construction. Plans for Phase 4 sewer separation with five new contracts starting summer 2024 (through 2030) will result in most of East Boston being separated.
  Somerville Marginal New Pipe Connection came out of the variance optimization study that recommended adding a new pipe from the facility's CSO influent conduit to the interceptor with an added control gate. The $4.4m construction project is expected to be completed by December 2025.
- *Fort Point Channel and Mystic Confluence* – BOS013, BOS062, BOS065, BOS070 DBC and BOS017: The FAA/MOU was amended on December 13, 2023 to include BOS013. The FAA/MOU was amended again on 1/29/2024 to increase the amount to $11.9 million to accommodate the greater than anticipated construction cost.
- *CAM005 weir raising and lengthening* for reducing CSO activation and frequency volume. Investigation was conducted on 9/14/2024. Preliminary Design Report for the feasibility anticipated November 1, 2024.

CSO variances

MassDEP has issued a series of multi-year CSO variances that allow MWRA, Cambridge, and Somerville to continue to have limited CSO discharges to Alewife Brook and the Upper Mystic River, as well as the Charles River lower basin. The most recent variances, issued in 2019, require the development of Updated LTCP. The Updated LTCPs must include a description of the existing level of CSO control, an evaluation of the costs and the performance and water quality improvements achieved by additional CSO control alternatives, a public participation plan, and an affordability analysis. Draft Updated Control Plan due December 2025 and the Final Plan due December 2027.

- MassDEP and EPA conditionally approved MWRA's Updated CSO Control Plan Scope of Work on 5/11/2022.
- Schedule Extension Request for Deliverables Associated with Updated CSO Control Plan was submitted 9/22/22. In May 2023 EPA/MassDEP advised that MWRA, Cambridge and Somerville proceed according to our revised schedule.
  - As identified in the variance the progress is reported at monthly meetings with EPA/MassDEP. The next meeting is scheduled for 11/13/2024. Key elements of the Updated CSO Control Plan are discussed including the ongoing development of alternatives to be evaluated using the Unified Hydraulic Model. On 10/9/2024 MWRA, Cambridge and Somerville shared individual alternatives achieving control for the 2050 TY.
- The 3rd of 8 planned meetings was held on 11/15/2023. The next Public Meeting is scheduled for **January 2025** (Alternatives Development and Affordability Analysis).
- Development and Submittal of Studies as required under variance included the following:
  - Alewife PS Optimization Evaluation was submitted on 4/27/2021
  - Somerville Marginal CSO Reduction, Study and Preliminary Design was submitted on 12/27/2021
  - Alewife Brook and Charles River System Optimization Evaluation was submitted on 12/28/2022
  - MWRA CSO Variances Additional System Optimization Measures Report was submitted on 1/31/2023.
  - **Odor control feasibility study due June 1, 2025.**
  - **Real time notification study due August 31, 2025.**
  - **Evaluation of floatables control study due October 1, 2025.**
- Bi-annual meeting with CLF/Watershed groups held on 6/21/2024. Next meeting November.

CIP Expenditures
1st Quarter – FY25

FY25 Capital Improvement Program Expenditure Variances through September by Program - ($ in thousands)				
Program	FY25 Budget Through September	FY25 Actual Through September	Variance Amount	Variance Percent
Wastewater	$36,789	$19,221	($17,569)	-48%
Waterworks	$21,788	$20,029	($1,759)	-8%
Business and Operations Support	$3,726	$834	($2,892)	-78%
Total	$62,303	$40,083	($22,220)	-36%

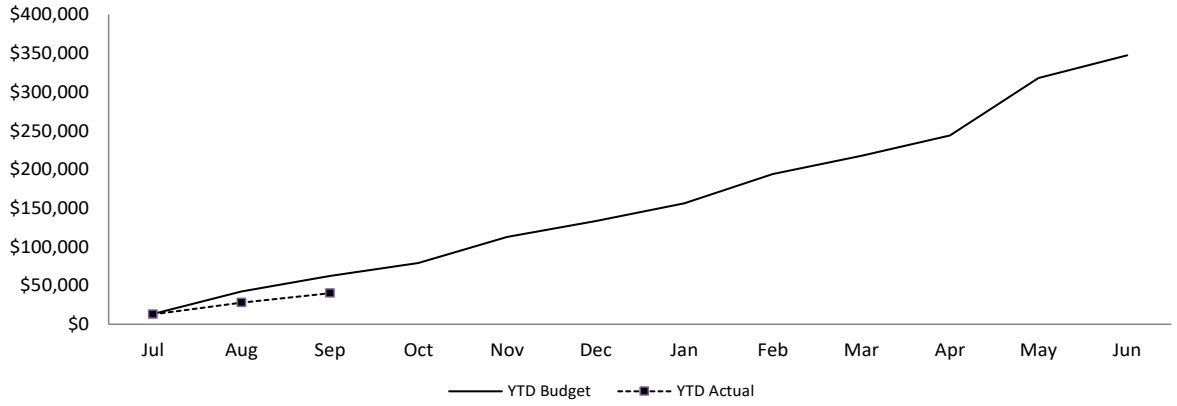
Wastewater:

- Spending was less than planned in Wastewater primarily due to lower than anticipated loan distributions for the I/I Local Financial Assistance program, timing of community managed payments for the Fort Point Channel & Mystic project, and delivery of materials planned for FY25 received in FY24 for Clarifier Rehabilitation Phase 2 Construction.

Water:

- Spending was less than planned in Waterworks primarily due to longer lead-time on some larger items and a change in design for the multi-orifice valve for the Wachusett Gatehouse Pipe Replacement project, lower than projected spending for Metro Water Tunnel Program Administration, Legal & Public Outreach, less than anticipated contractor progress for Section 89/29 Replacement, lower than projected task order work for CWTP Technical Assistance, and less than planned consultant work for the WASM 3 MEPA/Design/CA/RI contract.
- This less than planned spending was partially offset by FY24 planned work performed in FY25 for Northern Extra High CP-1 Improvements and CP3 (Sections 23, 24 & 47) Rehabilitation, contractor progress for Waltham Section 101 Pipeline Construction and Carroll Water Treatment Plant Parapet Wall Repairs, and greater than anticipated loan distributions for Local Water System Assistance Program.

Budget vs. Actual CIP Expenditures ($ in thousands)
Total FY25 CIP Budget of $347,348



Construction Fund Management

All payments to support the capital program are made from the Construction Fund. Sources of fund in-flows include bond proceeds, commercial paper, SRF reimbursements, loan repayments by municipalities, and current revenue. Accurate estimates of cash withdrawals and grant payments (both of which are derived from CIP spending projections) facilitate planning for future borrowings and maintaining an appropriate construction fund balance.

Cash Balance as of 9/28/24	$117.2 billion
Unused capacity under the debt cap:	$2.5 billion
Estimated date for exhausting construction fund without new borrowing:	Oct 2024
Estimated date for debt cap increase to support new borrowing:	Not anticipated at this time
Commercial paper/Revolving loan outstanding: Commercial paper capacity / Revolving Loan	$ 0 million $ 250 million
Budgeted FY25 Cash Flow Expectancy*:	$245 million

DRINKING WATER QUALITY AND SUPPLY

Source Water – Microbial Results and UV Absorbance

1st Quarter – FY25

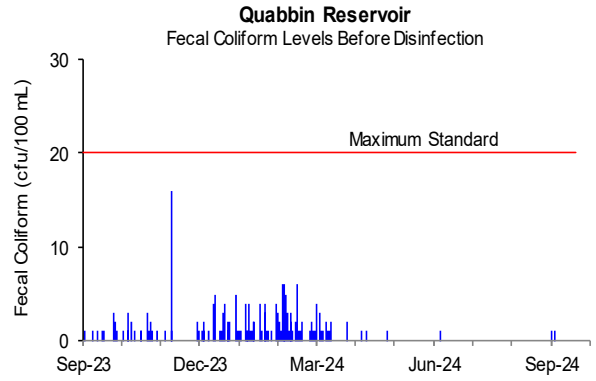
Source Water – Microbial Results

Total coliform bacteria are monitored in both source and treated water to provide an indication of overall bacteriological activity. Most coliforms are harmless. However, fecal coliforms, a subclass of the coliform group, are identified by their growth at temperatures comparable to those in the intestinal tract of mammals. They act as indicators of possible fecal contamination. The Surface Water Treatment Rule for unfiltered water supplies allows for no more than 10% of source water samples prior to disinfection over any six-month period to have more than 20 fecal coliforms per 100mL.

Sample Site: Quabbin Reservoir

Quabbin Reservoir water is sampled at the William A. Brutsch Water Treatment Facility raw water tap before being treated and entering the CVA system.

All samples collected during the quarter were below 20 cfu/100mL. **For the current six-month period, 0.0% of the samples have exceeded a count of 20 cfu/100mL.**

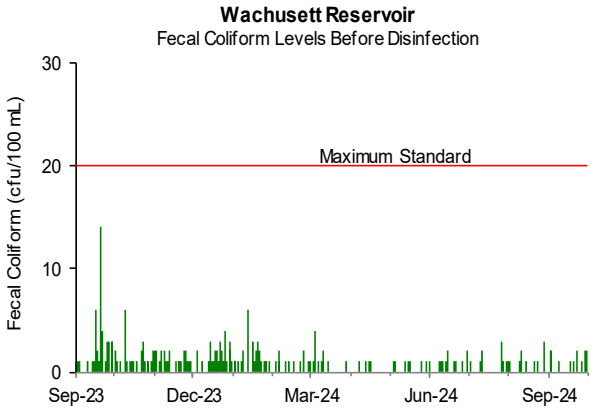


Sample Site: Wachusett Reservoir

Wachusett Reservoir water is sampled at the CWTP raw water tap in Marlborough before being treated and entering the MetroWest/Metropolitan Boston systems.

In the wintertime when smaller water bodies near Wachusett Reservoir freeze up, many waterfowl will roost in the main body of the reservoir - which freezes later. This increased bird activity tends to increase fecal coliform counts. DCR has an active bird harassment program to move the birds away from the intake area.

All samples collected during the quarter were below 20 cfu/100mL. **For the current six-month period, 0.0% of the samples exceeded a count of 20 cfu/100mL.**

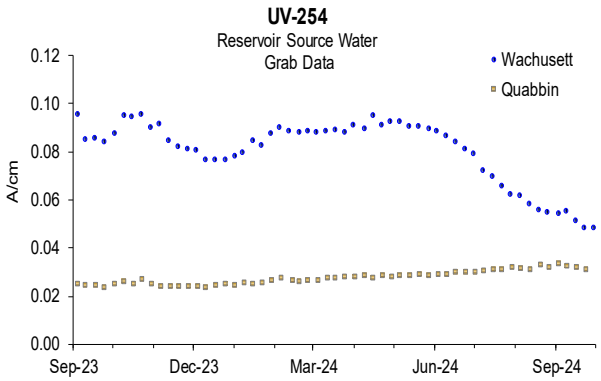


Source Water – UV Absorbance

UV Absorbance at 254nm wavelength (UV-254), is a measure of the amount and reactivity of natural organic material in source water. Higher UV-254 levels cause increased ozone and chlorine demand resulting in the need for higher ozone and chlorine doses, and can increase the level of disinfection by-products. UV-254 is impacted by tributary flows, water age, sunlight and other factors.

Quabbin Reservoir UV-254 levels averaged 0.031 A/cm for the quarter.

Wachusett Reservoir UV-254 levels averaged 0.060 A/cm for the quarter.



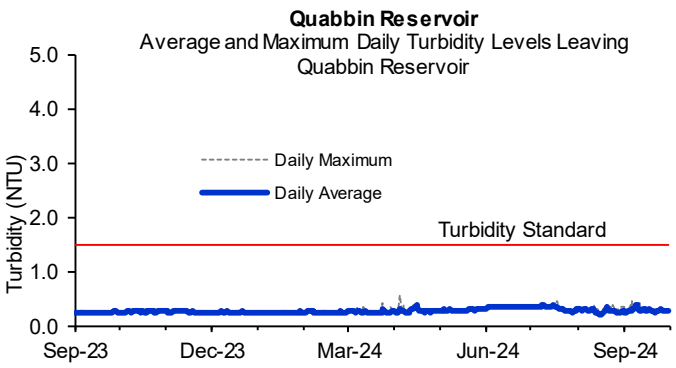
Source Water – Turbidity

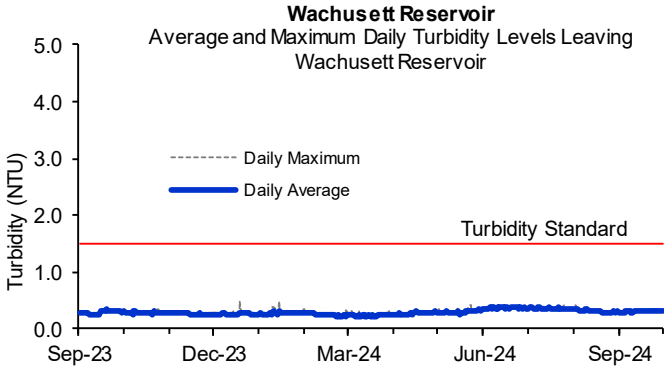
1st Quarter – FY25

Turbidity is a measure of suspended and colloidal particles including clay, silt, organic and inorganic matter, algae and microorganisms. The effects of turbidity depend on the nature of the matter that causes the turbidity. High levels of particulate matter may have a higher disinfectant demand or may protect bacteria from disinfection effects, thereby interfering with the disinfectant residual throughout the distribution system.

There are two standards for turbidity: all water must be below five NTU (Nephelometric Turbidity Units), and water only can be above one NTU if it does not interfere with effective disinfection.

Turbidity of Quabbin Reservoir water is monitored continuously at the Brutsch Water Treatment Facility (BWTF) before UV and chlorine disinfection. Turbidity of Wachusett Reservoir is monitored continuously at the Carroll Water Treatment Plant (CWTP) before ozonation and UV disinfection. Maximum turbidity results at Quabbin and Wachusett were within DEP standards for the quarter.



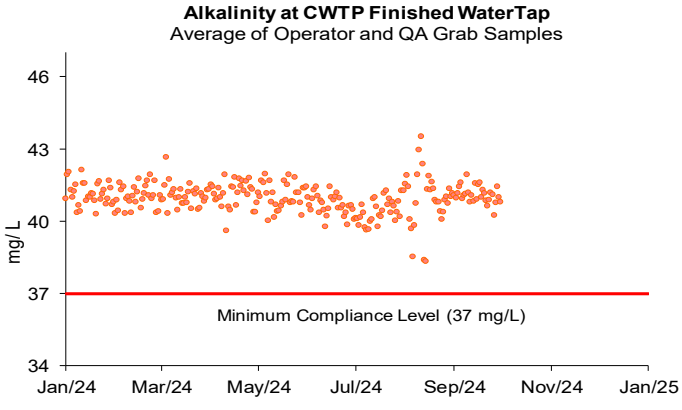


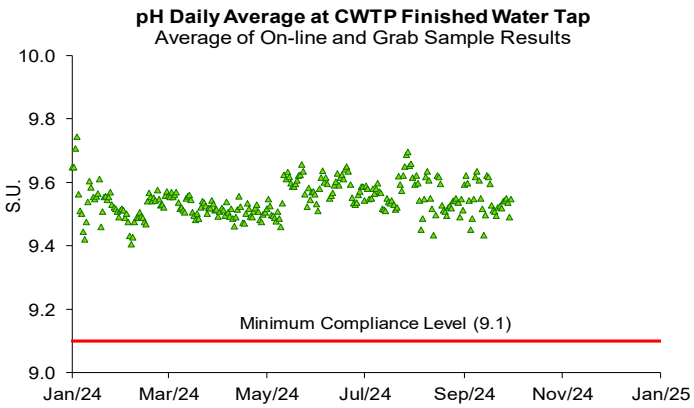
Treated Water – pH and Alkalinity Compliance

MWRA adjusts the alkalinity and pH of Wachusett water at CWTP to reduce its corrosivity, which minimizes the leaching of lead and copper from service lines and home plumbing systems into the water. MWRA tests finished water pH and alkalinity daily at the CWTP's Fin B sampling tap. MWRA's target for distribution system pH is 9.3; the target for alkalinity is 40 mg/l. Per DEP requirements, CWTP finished water samples have a minimum compliance level of 9.1 for pH and 37 mg/L for alkalinity. Samples from 27 distribution system locations have a minimum compliance level of 9.0 for pH and 37 mg/L for alkalinity. Results must not be below these levels for more than nine days in a six month period. Distribution system samples are collected in March, June, September, and December.

Each CVA community provides its own corrosion control treatment. See the CVA report: https://www.mwra.com/node/6548.

Quarterly distribution system samples were collected over a course of two weeks in September. Distribution system sample pH ranged from 9.2 to 9.7 and alkalinity ranged from 39 to 44 mg/L. No sample results were below DEP limits for this quarter.





Treated Water – Disinfection Effectiveness

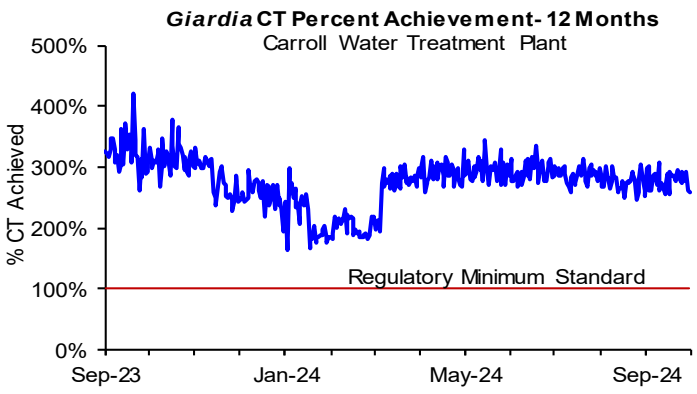
1st Quarter – FY25

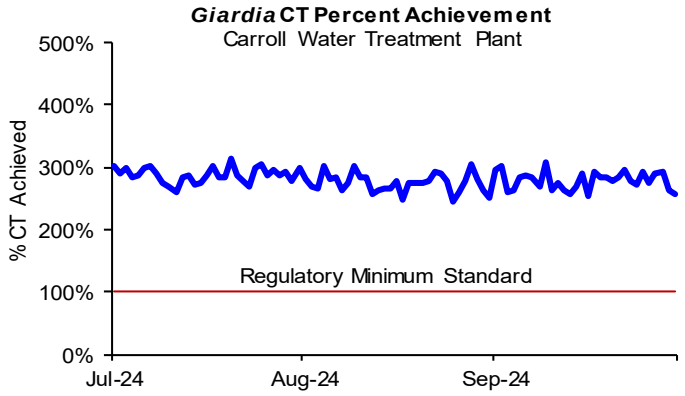
At the Carroll Water Treatment Plant (CWTP), MWRA meets the required 99.9% (3-log) inactivation of *Giardia* using ozone (reported as CT: concentration of disinfectant x contact time) and the required 99% (2-log) inactivation of *Cryptosporidium* using UV (reported as IT: intensity of UV x time). MWRA calculates inactivation rates hourly and reports *Giardia* inactivation at maximum flow and *Cryptosporidium* inactivation at minimum UV dose. MWRA must meet 100% of required CT and IT.

CT achievement for *Giardia* assures CT achievement for viruses, which have a lower CT requirement. For *Cryptosporidium*, there is also an "off-spec" requirement. Off-spec water is water that has not reached the full required UV dose or if the UV reactor is operated outside its validated ranges. No more than 5% off-spec water is allowed in a month.

Wachusett Reservoir – MetroWest/Metro Boston Supply:

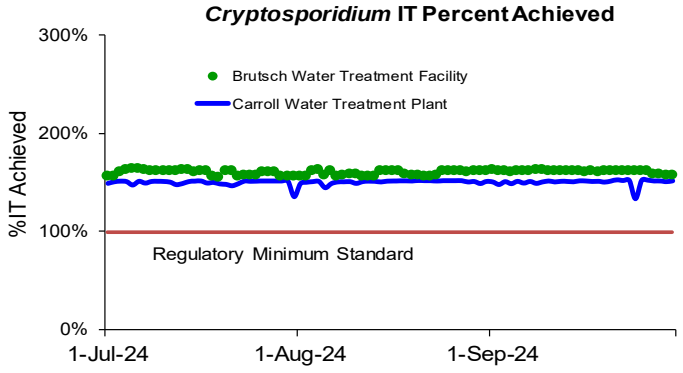
- The chlorine dose at the CWTP varied between 3.65 and 4.00 mg/L for the quarter.
- Ozone dose at the CWTP varied between 1.3 to 2.2 mg/L for the quarter.
- *Giardia* CT was maintained above 100% at all times the plant was providing water into the distribution system this quarter, as well as every day for the last fiscal year.
- *Cryptosporidium* IT was maintained above 100% for the quarter. Off-spec water was less than 5%.

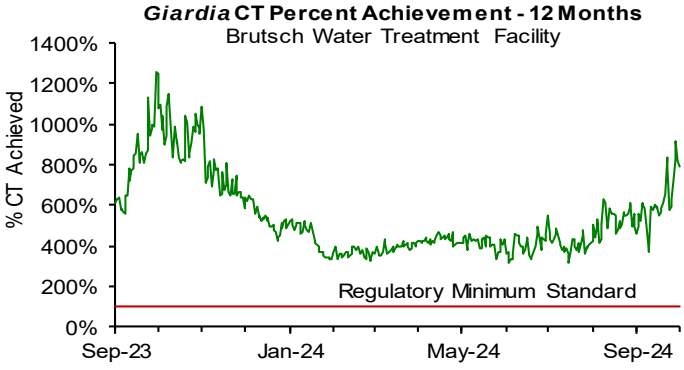


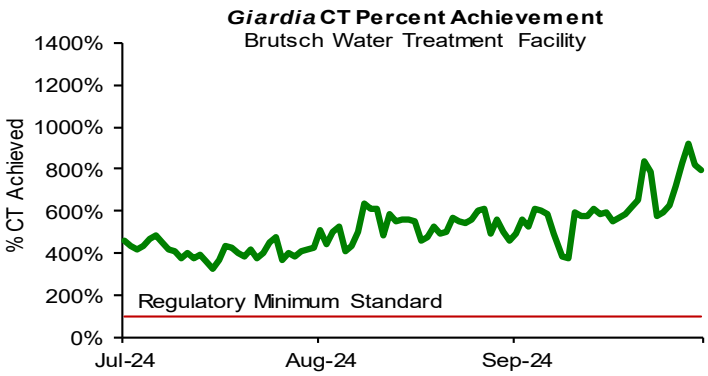


Quabbin Reservoir (CVA Supply) at: Brutsch Water Treatment Facility

- The chlorine dose at BWTF is adjusted in order to achieve MWRA's seasonal target of 0.75 - 0.85 mg/L (November 1 – May 31) and 0.85 - 1.05 mg/L (June 1 – October 31) at Ludlow Monitoring Station.
- The chlorine dose at BWTF varied between 1.55 to 2.05 mg/L for the quarter.
- *Giardia* CT was maintained above 100% at all times the plant was providing water into the distribution system for the quarter.
- *Cryptosporidium* IT was maintained above 100% for the quarter. Off-spec water was less than 5%.







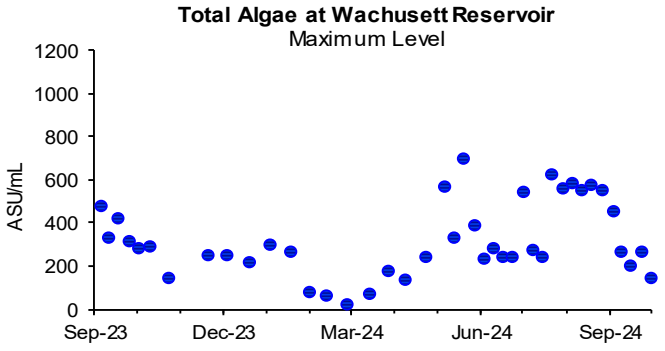
Source Water - Algae

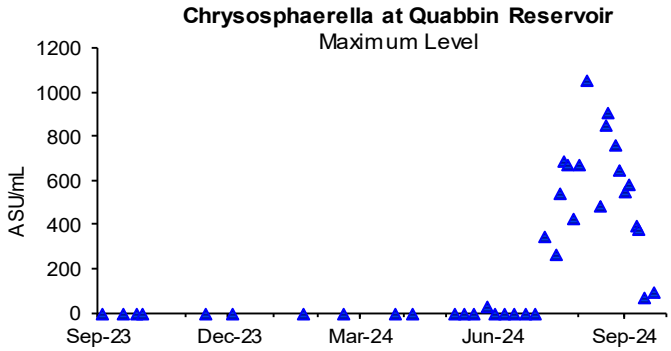
1st Quarter – FY25

Algae levels in the Wachusett and Quabbin Reservoir are monitored by DCR and MWRA. These results, along with taste and odor complaints, are used to make decisions on source water treatment for algae control.

Taste and odor complaints at the tap may be due to algae, which originate in source reservoirs, typically in trace amounts. Occasionally, a particular species grows rapidly, increasing its concentration in water. When *Synura*, *Anabaena*, or other nuisance algae bloom, MWRA may treat the reservoirs with copper sulfate, an algaecide. During the winter and spring, diatom numbers may increase. While not a taste and odor concern, consumers that use filters may notice a more frequent need to change their filters.

In the first quarter, fourteen complaints which may be related to algae were reported from the local communities. Eleven complaints regarding metallic taste were reported from the CVA communities. In July, the Levels of *Chrysosphaerella* were elevated in the Quabbin Reservoir. Levels of *Chrysosphaerella* decreased towards the end of the September.





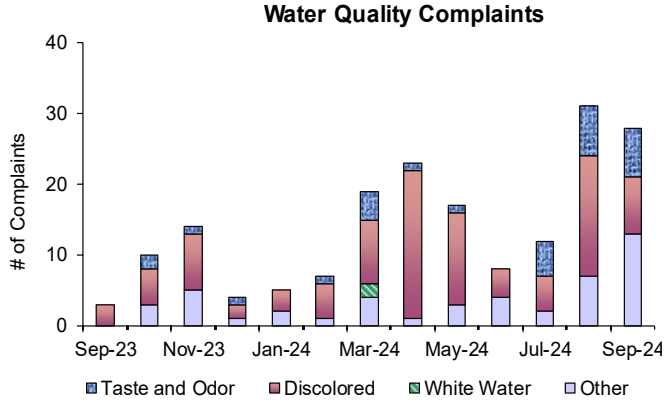
Drinking Water Quality Customer Complaints: Taste, Odor, or Appearance

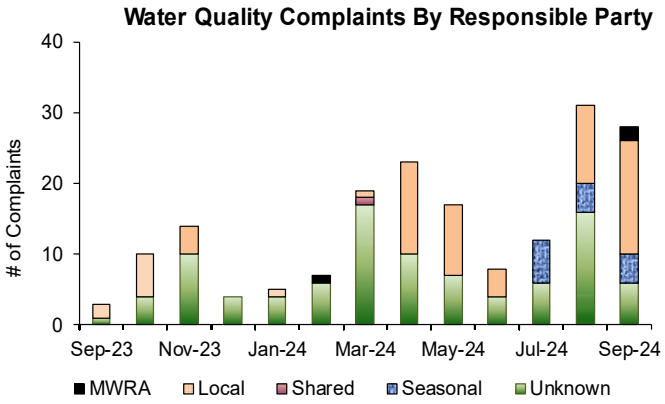
MWRA collects information on water quality complaints that typically fall into four categories: 1) discoloration due to MWRA or local pipeline work; 2) taste and odor due to algae blooms in reservoirs or chlorine in the water; 3) white water caused by changes in pressure or temperature that traps air bubbles in the water; or 4) "other" complaints including no water, clogged filters or other issues.

MWRA routinely contacts communities to classify and tabulate water complaints from customers. This count, reflecting only telephone calls to towns, probably captures only a fraction of the total number of customer complaints. Field Operations staff have improved data collection and reporting by keeping track of more kinds of complaints, tracking complaints to street addresses and circulating results internally on a daily basis.

Communities reported 71 complaints during the quarter compared to 62 complaints from 1st Quarter of FY24. Of these complaints, 30 were for "discolored water", 19 were for "taste and odor", and 22 were for "other". Of these complaints, 27 were local community issues, 2 were a shared MWRA/community issue, 14 were seasonal in nature, and 28 were unknown in origin.

- Communities with discolored water complaints due to hydrant flushing performed during the quarter:
  August– Somerville (7); September– Arlington (2); Somerville (2)
- In the first quarter, thirteen seasonal complaints were due to elevated *Chrysosphaerella* in the Quabbin Reservoir.
- In September, seven no water complaints in Arlington were reported due to a water main break.





Bacteria & Chlorine Residual Results for Communities in MWRA Testing Program

1st Quarter – FY25

While all communities collect bacteria samples and chlorine residual data for the Total Coliform Rule (TCR), data from the 44 systems that use MWRA's Laboratory are reported below.
The MWRA TCR program has 144 sampling locations. These locations include sites along MWRA's transmission system, water storage tanks and pumping stations, as well as a subset of the community TCR locations.
Samples are tested for total coliform and *Escherichia coli (E.coli*). *E.coli* is a specific coliform species whose presence likely indicates potential contamination of fecal origin.
If *E.coli* are detected in a drinking water sample, this is considered evidence of a potential public health concern. Public notification is required if repeat tests confirm the presence of *E.coli* or total coliform.
Total coliform provide a general indication of the sanitary condition of a water supply. If total coliform are detected in more than 5% of samples in a month (or if more than one sample is positive when less than 40 samples are collected), the water system is required to investigate the possible source/cause with a Level 1 or 2 Assessment, and fix any identified problems.
A disinfectant residual is intended to maintain the sanitary integrity of the water; MWRA considers a residual of 0.2 mg/L a minimum target level at all points in the distribution system.

Highlights

In the first quarter, eighty-eight of the 6,621 fully and partially served samples (1.3%) tested positive for total coliform. Seven of the 1914 Shared Community/MWRA samples tested positive for total coliform. None of the 396 CVA/MWRA community samples tested positive for total coliform. These communities were required to conduct Level Assessments: Bedford (July-September); Peabody (September); Quincy (August); Somerville (August); Winthrop (July-August-September). No samples confirmed for *E.coli*. 0.3% of the Fully Served community quarterly samples had chlorine residuals lower than 0.2 mg/L.

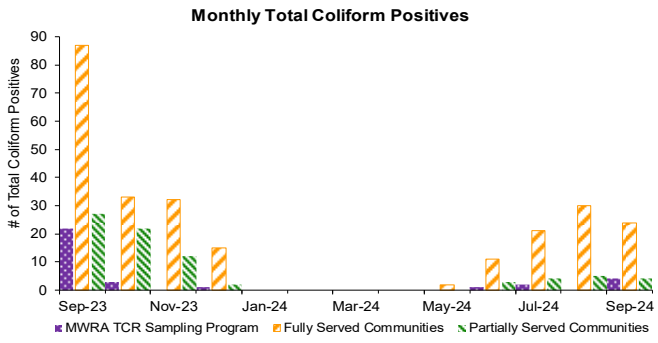
NOTES:

a) MWRA total coliform and chlorine residual results include data from community locations. In most cases these community results are indicative of MWRA water as it enters the community system; however, some are strongly influenced by local pipe conditions. Residuals in the MWRA system are typically between 1.0 and 2.8 mg/L.

b) The number of samples collected depends on the population served and the number of repeat samples required.

c) These communities are partially supplied, and may mix their chlorinated supply with MWRA chloraminated supply.

d) Part of the Chicopee Valley Aqueduct System. Free chlorine system.



			Total Coliform # Samples (b)	Total Coliform # (%) Positive	*E.coli* Positive	# Assessment Required
MWRA	a	MWRA Locations	413	2 (0.5%)	0	
		Shared Community/MWRA sites	1501	5 (0.3%)	0	
		Total: MWRA	1914	7 (0.4%)	0	No
Fully Served		ARLINGTON	168	0 (0%)	0	
		BELMONT	112	0 (0%)	0	
		BOSTON	801	2 (0.3%)	0	No
		BROOKLINE	235	0 (0%)	0	
		CHELSEA	188	2 (1.1%)	0	No
		DEER ISLAND	56	0 (0%)	0	
		EVERETT	185	1 (0.5%)	0	No
		FRAMINGHAM	275	1 (0.4%)	0	No
		LEXINGTON	127	1 (0.8%)	0	No
		LYNNFIELD	18	0 (0%)	0	
		MALDEN	252	0 (0%)	0	
		MARBLEHEAD	75	1 (1.3%)	0	No
		MARLBOROUGH	159	2 (1.3%)	0	No
		MEDFORD	237	1 (0.4%)	0	No
		MELROSE	120	1 (0.8%)	0	No
		MILTON	105	1 (1.0%)	0	No
		NAHANT	30	0 (0%)	0	
		NEWTON	291	4 (1.4%)	0	No
		NORTHBOROUGH	48	0 (0%)	0	
		NORWOOD	99	0 (0%)	0	
		QUINCY	352	11 (3.1%)	0	Yes
		READING	143	0 (0%)	0	
		REVERE	219	1 (0.5%)	0	No
		SAUGUS	96	0 (0%)	0	
		SOMERVILLE	263	6 (2.3%)	0	Yes
		SOUTHBOROUGH	30	0 (0%)	0	
		STONEHAM	91	0 (0%)	0	
		SWAMPSCOTT	57	0 (0%)	0	
		WALTHAM	222	2 (0.9%)	0	No
		WATERTOWN	143	0 (0%)	0	
		WESTON	45	0 (0%)	0	
		WINTHROP	102	38 (37.3%)	0	Yes
		Total: Fully Served	*5344*	*75 (1.4%)*		
Partially Served	c	BEDFORD	71	7 (9.9%)	0	Yes
		BURLINGTON	125	0 (0%)	0	
		CANTON	93	1 (1.1%)	0	No
		NEEDHAM	123	0 (0%)	0	
		PEABODY	232	5 (2.2%)	0	Yes
		WAKEFIELD	132	0 (0%)	0	
		WELLESLEY	110	0 (0%)	0	
		WILMINGTON	87	0 (0%)	0	
		WINCHESTER	94	0 (0%)	0	
		WOBURN	210	0 (0%)	0	
		Total: Partially Served	*1277*	*13 (1.0%)*		
		Total: Community Samples No CVA	*6621*	*88 (1.3%)*		
CVA	d	MWRA CVA Locations	105	0 (0%)	0	
		CHICOPEE	186	0 (0%)	0	
		SOUTH HADLEY FD1	60	0 (0%)	0	
		WILBRAHAM	45	0 (0%)	0	
		Total: CVA	*396*	*0 (0.0%)*		

Chlorine Residuals in Fully Served Communities

	2023				2024								
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
% <0.1	0.4	0.2	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0
% <0.2	1.8	1.0	1.2	1.0	0.5	0.4	0.1	0.1	0.1	0.2	0.4	0.2	0.2
% <0.5	6.2	5.2	5.7	3.2	2.4	1.9	0.6	1.0	0.8	1.2	1.8	2.0	1.5
% <1.0	16.0	13.2	14.4	8.4	5.8	3.7	2.6	2.9	3.1	5.2	5.8	7.3	5.6
% ≥1.0	84.0	86.8	85.6	91.6	94.2	96.3	97.4	97.1	96.6	94.5	93.5	91.8	93.9

Treated Water Quality: Disinfection By-Product (DBP) Levels in Communities

1st Quarter – FY25

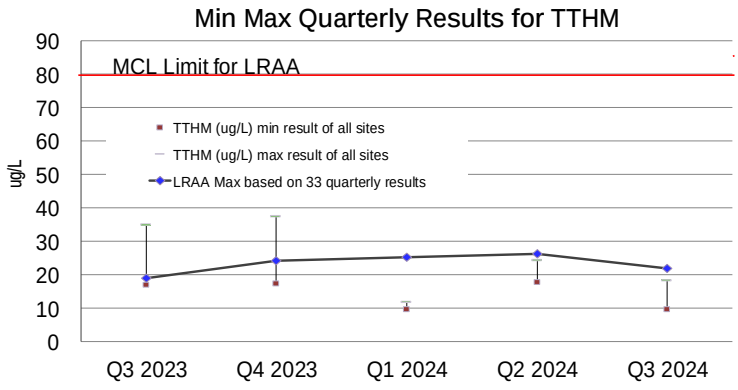
Total Trihalomethanes (TTHMs) and Haloacetic Acids (HAA5s) are by-products of disinfection treatment with chlorine. They are of concern due to their potential adverse health effects at high levels. EPA's locational running annual average (LRAA) standard, using the most recent four quarterly results, is 80 µg/L for TTHMs and 60 µg/L for HAA5s. The locational running annual average at each individual sampling location must be below the standard.

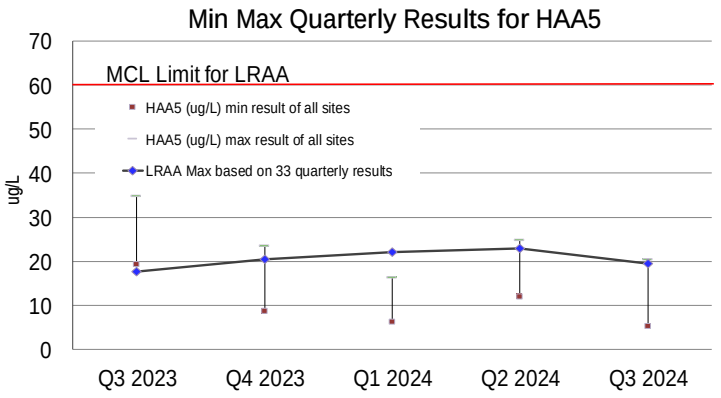
Bromate is tested monthly as required for water systems, like CWTP, that treat with ozone. EPA's RAA Maximum Contaminant Level (MCL) standard for bromate is 10 µg/L. The current RAA for Bromate at the CWTP finished water tap is 0.0 µg/L.

MWRA's TTHM and HAA5 sampling program includes sampling at 33 MetroWest and Metro Boston communities sites. Partially served and CVA communities are responsible for their own compliance monitoring and are regulated individually.

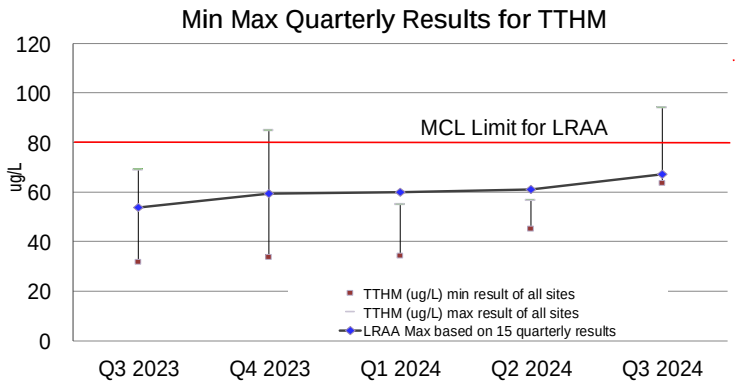
The LRAA for TTHMs and HAA5s for MWRA's Compliance Program (represented as the line in the top two graphs below) remains below current standards. The Max LRAA in the quarter for TTHMs = 22.0 µg/L; HAA5s = 19.4 µg/L. No LRAA exceedances or violations occurred this quarter for MetroBoston and for any of the CVA communities.

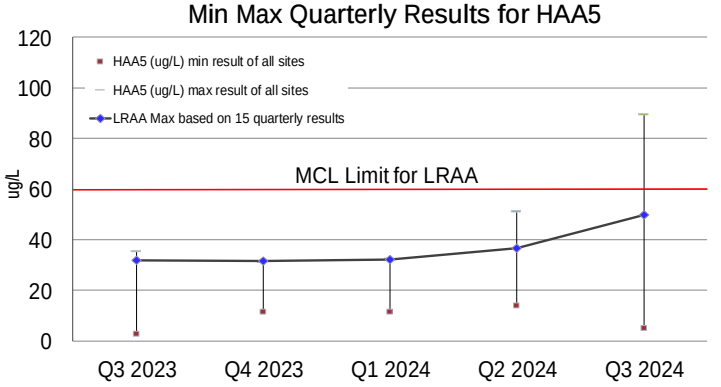
MetroBoston Disinfection By-Products





CVA Disinfection By-Products (Combined Results Chicopee, Wilbraham, & South Hadley FD1)





Water Supply and Source Water Management

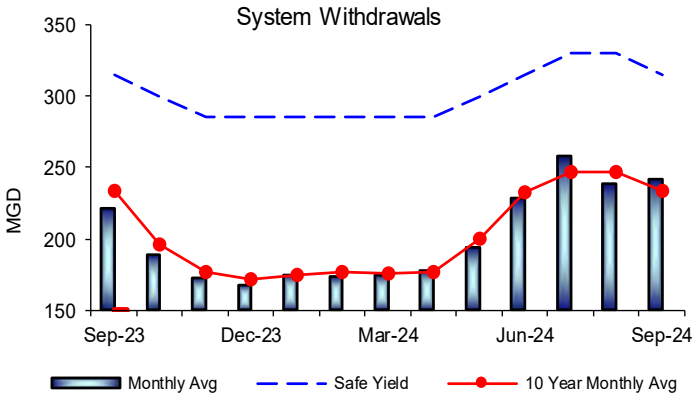
1st Quarter – FY25

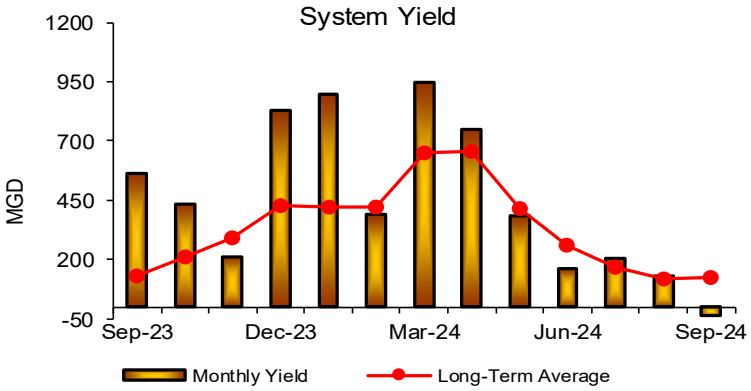
Background

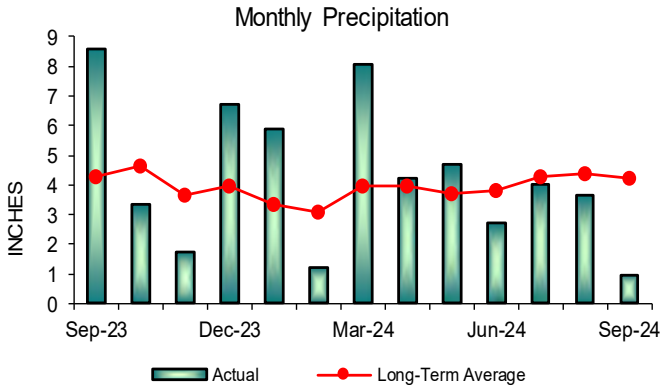
A reliable supply of water in MWRA's reservoirs depends on adequate precipitation during the year and seasonal hydrologic inputs from watersheds that surround the reservoirs. Demand for water typically increases with higher summer temperatures and then decreases as temperatures decline. Quabbin Reservoir was designed to effectively supply water to the service areas under a range of climatic conditions and has the ability to endure a range of fluctuations. Wachusett Reservoir serves as a terminal reservoir to meet the daily demands of the Greater Boston area. A key component to this reservoir's operation is the seasonal transfer of Quabbin Reservoir water to enhance water quality during high demand periods. On an annual basis, Quabbin Reservoir accounts for nearly 50% of the water supplied to Greater Boston. The water quality of both reservoirs (as well as the Ware River, which is also part of the System Safe Yield) depend upon implementation of DCR's DEP-approved Watershed Protection Plans. System Yield is defined as the water produced by its sources, and is reported as the net change in water available for water supply and operating requirements.

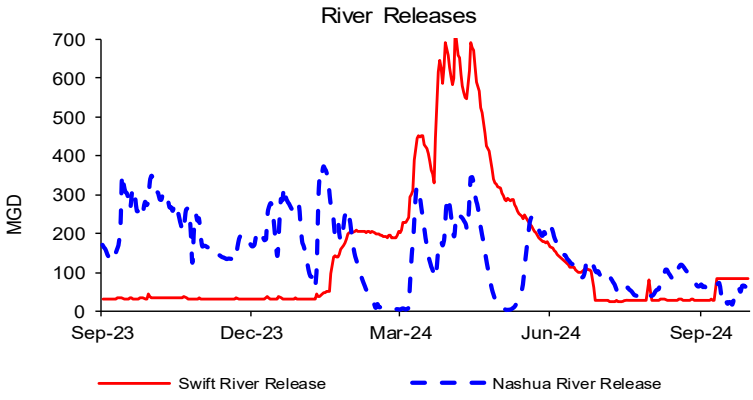
Outcome

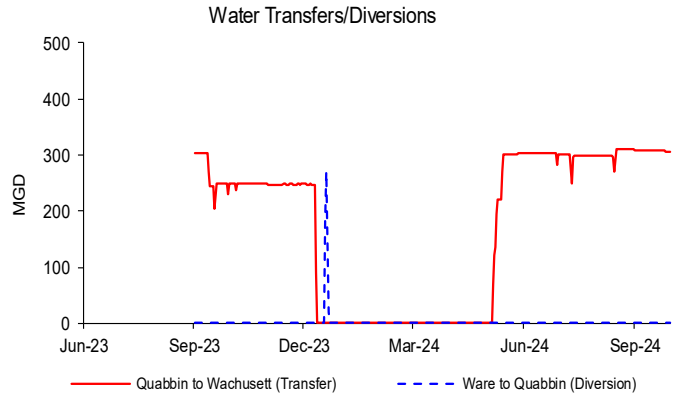
The volume of the Quabbin Reservoir was at 89.6% as of September 30, 2024; an 8.7 % decrease for the quarter, which represents a loss of more than 35.9 billion gallons of storage and a decrease in elevation of 4.75'. System withdrawal, precipitation and yield were below their long term quarterly averages. Quabbin is in Normal Operating Range for this time of year.

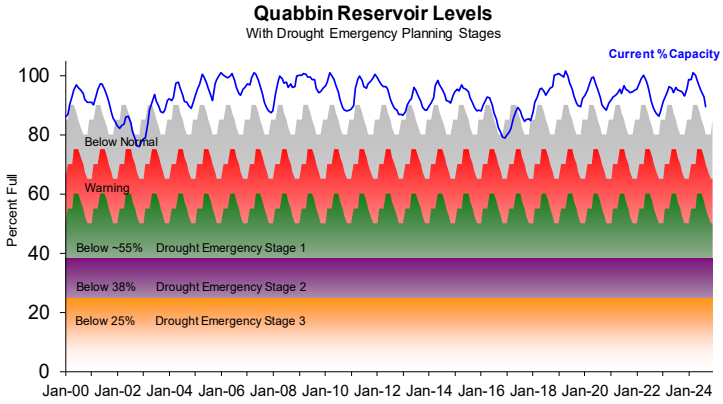












WASTEWATER QUALITY

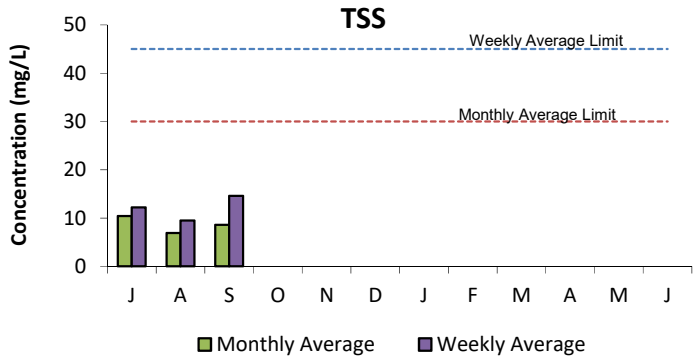
NPDES Permit Compliance: Deer Island Treatment Plant

1st Quarter - FY25

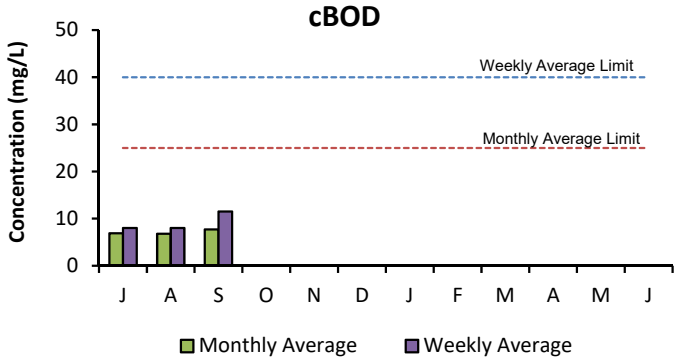
NPDES Permit Limits

Effluent Characteristics		*Units*	*Limits*	*July*	*August*	*September*	*1st Quarter Violations*	*FY25 YTD Violations*
Dry Day Flow (365 Day Average):		MGD	436	308.4	300.2	287.9	0	0
cBOD:	Monthly Average	mg/L	25	6.9	6.8	7.7	0	0
	Weekly Average	mg/L	40	8.0	8.0	11.5	0	0
TSS:	Monthly Average	mg/L	30	10.4	6.9	8.6	0	0
	Weekly Average	mg/L	45	12.2	9.5	14.6	0	0
TCR:	Monthly Average	ug/L	456	0.0	0.0	0.0	0	0
	Daily Maximum	ug/L	631	0.0	0.0	0.0	0	0
Fecal Coliform:	Daily Geometric Mean	col/100mL	14000	13	15	13	0	0
	Weekly Geometric Mean	col/100mL	14000	7	7	6	0	0
	% of Samples >14000	%	10	0	0	0	0	0
	Consecutive Samples >14000	#	3	0	0	0	0	0
pH:		SU	6.0-9.0	6.4-6.9	6.4-6.8	6.5-6.9	0	0
PCB, Aroclors:	Monthly Average	ug/L	0.000045	UNDETECTED			0	0
Acute Toxicity:	Inland Silverside	%	≥50	>100	>100	>100	0	0
	Mysid Shrimp	%	≥50	>100	>100	>100	0	0
Chronic Toxicity:	Inland Silverside	%	≥1.5	50	25	25	0	0
	Sea Urchin	%	≥1.5	100	100	100	0	0

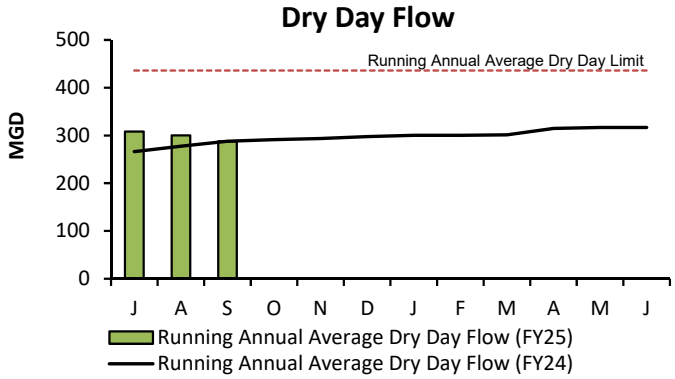
There have been no permit violations in FY25 to date at the Deer Island Treatment Plant (DITP).



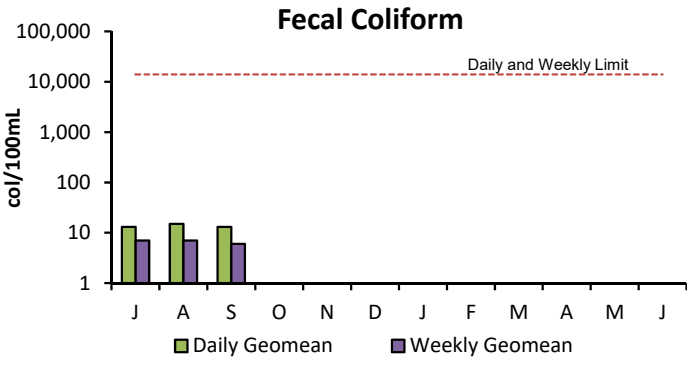
Total Suspended Solids (TSS) in the effluent is a measure of the amount of solids that remain suspended after treatment. All TSS measurements for the 1st Quarter were within permit limits.



Carbonaceous Biochemical Oxygen Demand (cBOD) is a measure o the amount of dissolved oxygen required for the decomposition of organic materials in the environment. All cBOD measurements for the 1st Quarter were within permit limits.



Running Annual Average Dry Day Flow is the average of all dry weather influent flows over the previous 365 days. The Dry Day Flow for the 1st Quarter was well below the permit limit of 436 MGD.



Fecal Coliform is an indicator for the possible presence of pathogens. The levels of these bacteria after disinfection show how effectively the plant is inactivating many forms of disease-causing microorganisms. In the 1st Quarter, all permit conditions for fecal coliform were met.

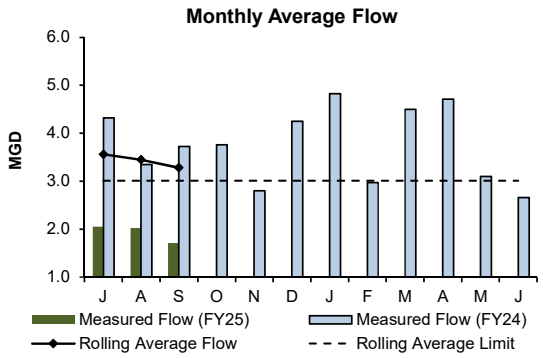
NPDES Permit Compliance: Clinton Wastewater Treatment Plant

1st Quarter - FY25

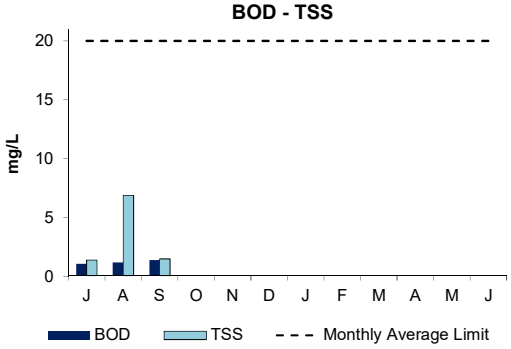
Effluent Characteristics		Units	Permit Limits	July	August	September	1st Quarter Violations	FY25 YTD Violations
Dissolved Oxygen	Daily Minimum	mg/L	6	7.9	7.8	7.7	0	0
BOD	Monthly Average Load	lb/d	500	19.0	21.0	19.0	0	0
	Weekly Average Load	lb/d	500	25.0	24.0	27.0	0	0
	Monthly Average	mg/L	20	1.1	1.2	1.4	0	0
	Weekly Average	mg/L	20	1.4	1.5	2.0	0	0
BOD % removal	Monthly Average Minimum	%	85	99.5	99.6	99.4	0	0
pH	Monthly Minimum	S.U.	6.5	7.0	7.4	7.3	0	0
	Monthly Maximum	S.U.	8.3	9.2	7.6	7.9	1	1
TSS	Monthly Average Load	lb/d	500	23.0	120.0	21.0	0	0
	Weekly Average Load	lb/d	500	44.0	269.0	23.0	0	0
	Monthly Average	mg/L	20	1.4	6.9	1.5	0	0
	Weekly Average	mg/L	20	2.5	15.8	1.6	0	0
TSS % removal	Monthly Average Minimum	%	85	99.5	97.3	99.5	0	0
Total Ammonia Nitrogen June 1st - October 31st	Monthly Average	mg/L	2	0.03	<0.1	<0.1	0	0
	Daily Maximum	mg/L	3	0.13	<0.1	<0.1	0	0
Total Phosphorus April 1st - October 31st	Monthly Average	lb/d	3.8	0.8	1.4	0.5	0	0
	Monthly Average	mg/L	0.15	0.05	0.08	0.03	0	0
Copper	Monthly Average	ug/L	11.6	9.73	10.2	11.4	0	0
	Daily Maximum	ug/L	14	10.5	10.2	11.4	0	0
Flow	12 -month Rolling Average	MGD	3.01	3.56	3.45	3.28	3	3
TCR	Monthly Average	ug/L	20	0.13	<20	0.13	0	0
	Daily Maximum	ug/L	30.4	4.0	<20	4.0	0	0
E. Coli	Monthly Geometric Mean	cfu/100mL	126	5.0	5.0	5.0	0	0
	Daily Maximum	cfu/100mL	409	9.0	7.0	10.0	0	0
Acute Toxicity[1]	Monthly Average Minimum	%	100	>100	N/A	N/A	0	0
Chronic Toxicity[1]	Monthly Average Minimum	%	62.5	100	N/A	N/A	0	0

There have been four permit violations in FY25 at the Clinton Treatment Plant.
1st Quarter: There were four permit violations in the first quarter, three for 12 month rolling-average flow and one for pH.

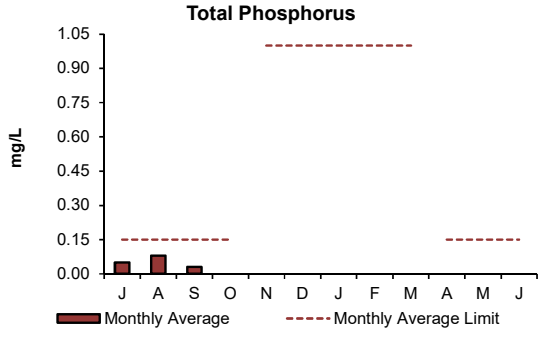
[1] Toxicity testing at the Clinton Treatment Plant is conducted on a quarterly basis.



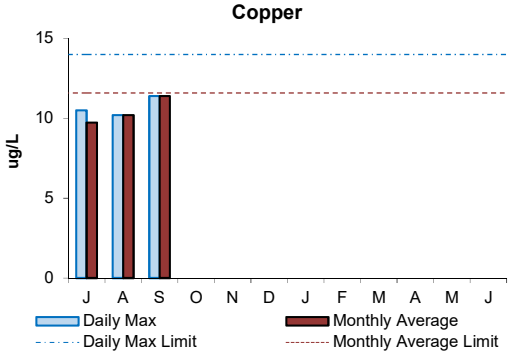
The graph depicts the rolling annual average monthly flow, measured in million gallons per day, exiting the plant.
The 12-month rolling average flows during the 1st Quarter were above the permit limit.



Monthly average concentrations of BOD and TSS were below permit limits in the 1st Quarter. The permit monthly limit for both parameters is 20 mg/L.



Total phosphorus limits are most stringent during the growing season from April to October.
The 1st Quarter's monthly average concentrations for total phosphorus were below permit limits.

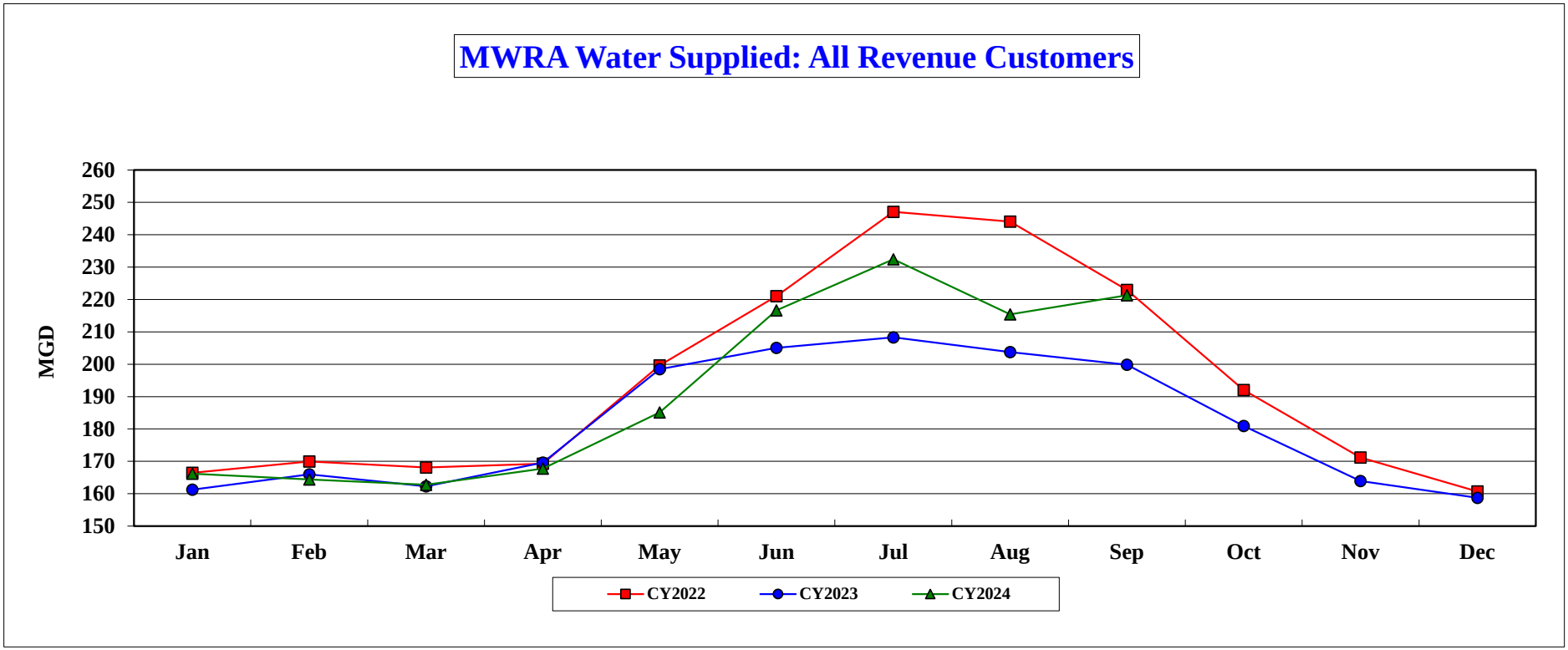


Daily maximum and monthly average concentrations of copper were below permit limits in the 1st Quarter. Permit daily and monthly limits are 14.0 ug/L and 11.6 ug/L respectively.

COMMUNITY FLOWS AND PROGRAMS

Customer Water Use

1st Quarter - FY25



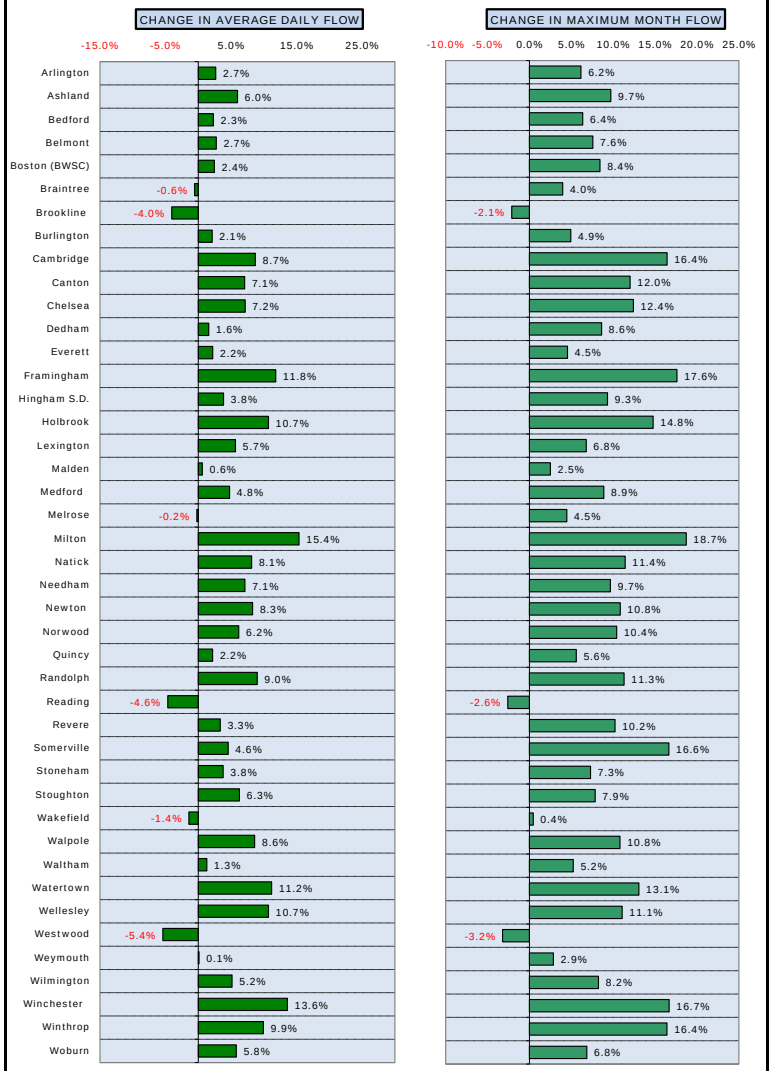
	Water Use (million gallons per day)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD Average	Annual Average
CY2022	166.445	169.923	168.101	169.253	199.626	221.002	247.075	244.069	222.906	192.000	171.170	160.697	201.236	194.537
CY2023	161.272	165.989	162.292	169.594	198.499	205.042	208.304	203.762	199.844	180.948	163.937	158.736	186.227	181.612
CY2024	166.216	164.428	162.771	167.755	185.117	216.636	232.419	215.396	221.314	0.000	0.000	0.000	192.551	1,701.905

The September 2024 Community Water Use Report was recently distributed to communities and customers served by the MWRA's Metropolitan and Chicopee Valley waterworks systems. Each community's annual water use relative to the system as a whole is the primary factor in allocating the annual water rate revenue requirement to MWRA water communities. Calendar year 2024 water use will be used to allocate the FY2026 water utility rate revenue requirement.

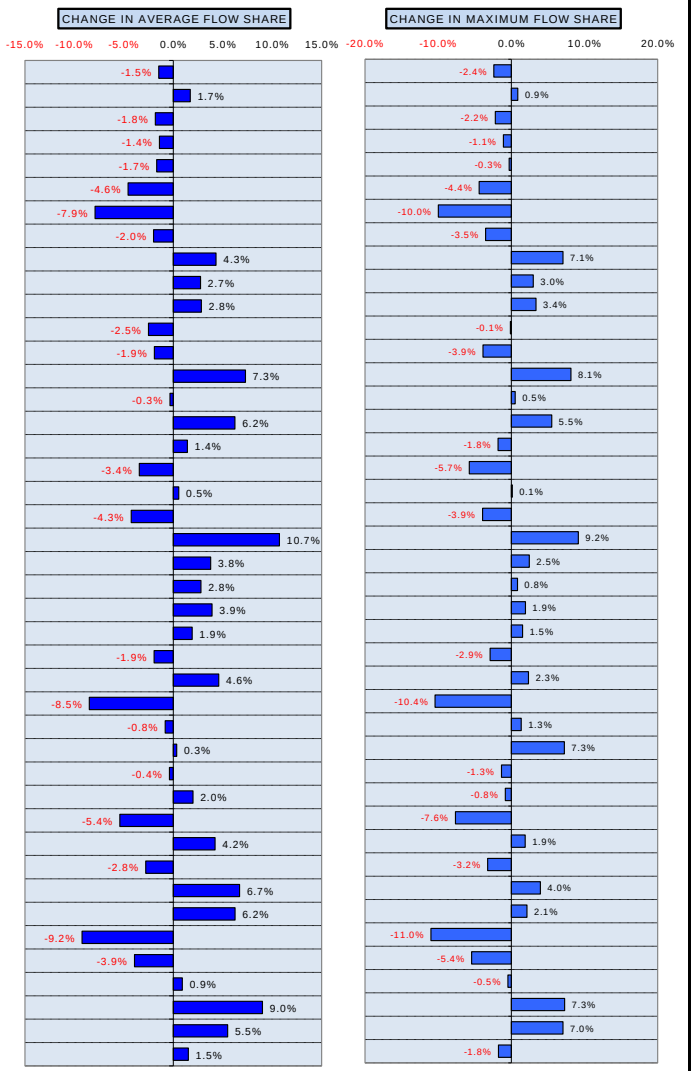
MWRA customers used an average of 223.1 mgd in the 1st quarter (Jul-Sep 2024) of FY2025. This is an increase of 19.0 mgd or 9.3% compared to the 1st quarter of FY2024.

How CY2022-24 Community Wastewater Flows Could Effect FY2026 Sewer Assessments [1,2,3]

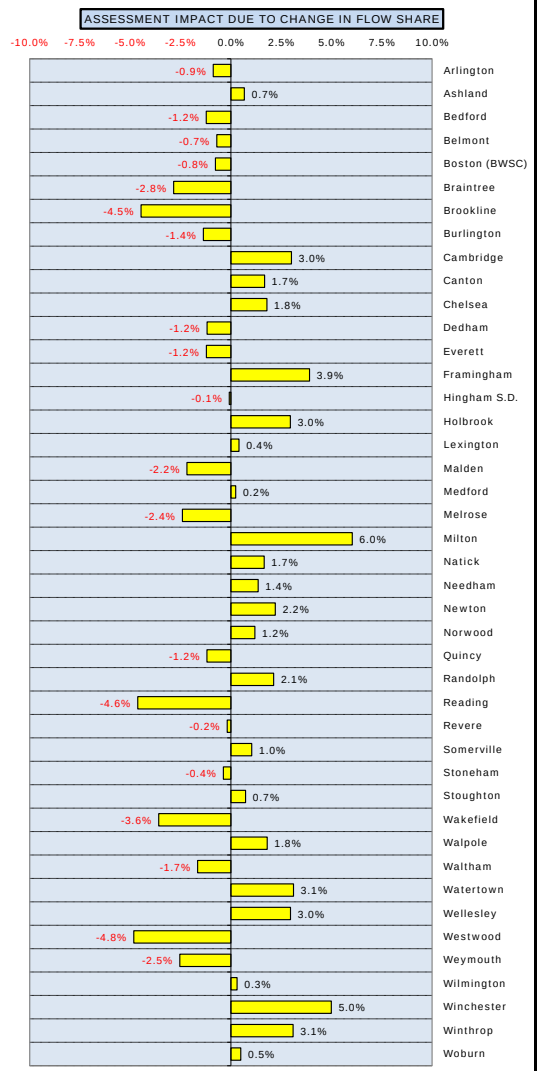
The flow components of FY2026 sewer assessments will be calculated using a 3-year average of CY2022 to CY2024 wastewater flows compared to FY2025 assessments that will use a 3-year average of CY2021 to CY2023 wastewater flows.



But as MWRA's sewer assessments are a ZERO-SUM calculation, a community's assessment is strongly influenced by the RELATIVE change in CY2022 to CY2024 flow share compared to CY2021 to CY2023 flow share, compared to all other communities in the system.



The chart below illustrates the change in the TOTAL BASE assessment due to FLOW SHARE CHANGES. [4]



[1] MWRA uses a 3-year flow average to calculate sewer assessments. Three-year averaging smoothes the impact of year-to-year changes in community flow share, but does not eliminate the long-term impact of changes in each community's relative contribution to the total flow.

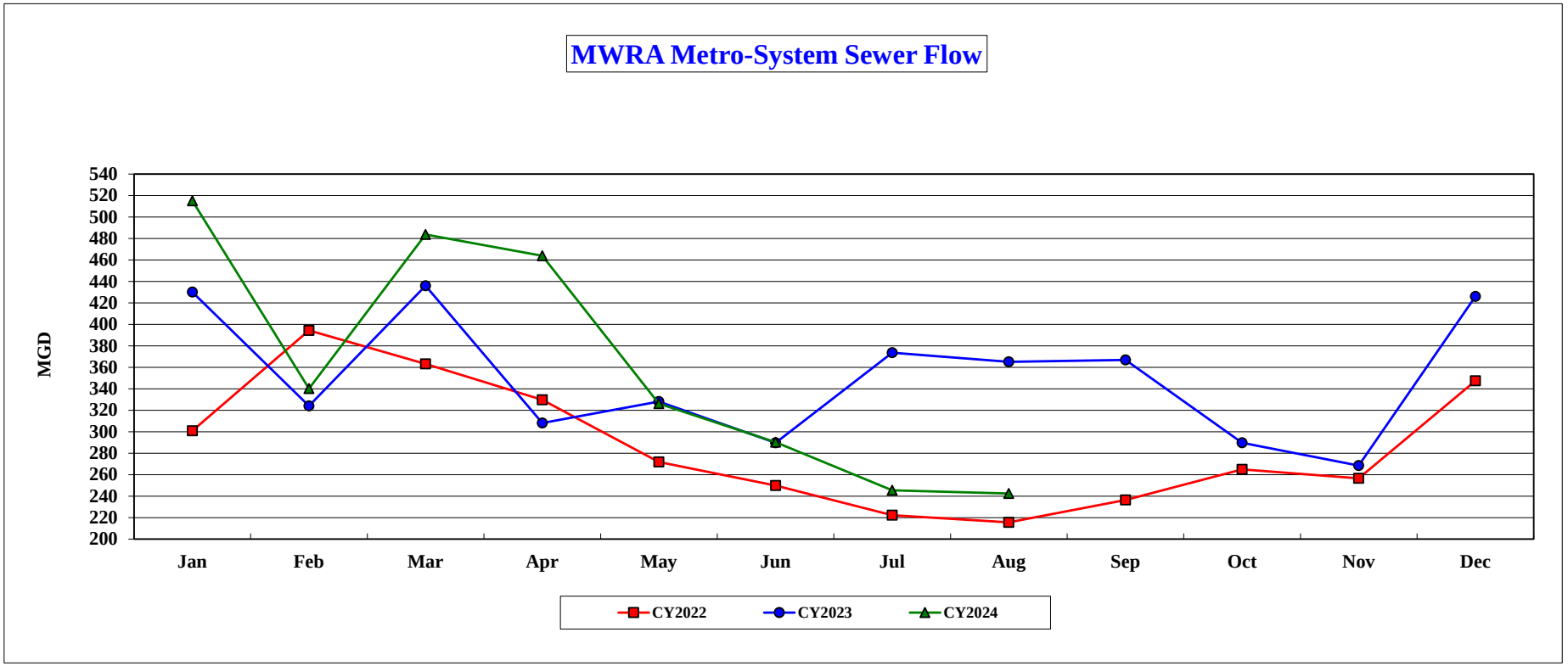
[2] Based on actual flows for 2022 through August 2024.

[3] Flow data is preliminary and subject to change pending additional MWRA and community review.

[4] Represents ONLY the impact on the total BASE assessment resulting from the changes in average and maximum wastewater FLOW SHARES.

Community Sewer Flow

YTD - FY25



	Sewer Flow (million gallons per day)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD Average	Annual Average
CY2022	300.930	394.400	363.110	329.710	271.890	249.840	222.280	215.600	236.380	264.960	256.590	347.420	292.254	287.098
CY2023	430.060	323.980	435.990	308.110	328.160	289.710	373.540	365.130	366.840	289.680	268.470	426.070	357.717	351.159
CY2024	515.140	340.120	483.660	463.870	326.210	290.200	245.410	242.440					363.460	

The 2024 8-Month Community Sewer Flow Report was recently distributed to the 43 communities served by the MWRA's Metropolitan sewer system. Each community's share of sewer flow relative to the system as a whole is used to allocate the annual sewer rate revenue requirement to MWRA sewer communities. The average of calendar year 2022-2024 sewer flow will be used to allocate the FY2026 sewer utility rate revenue requirement.

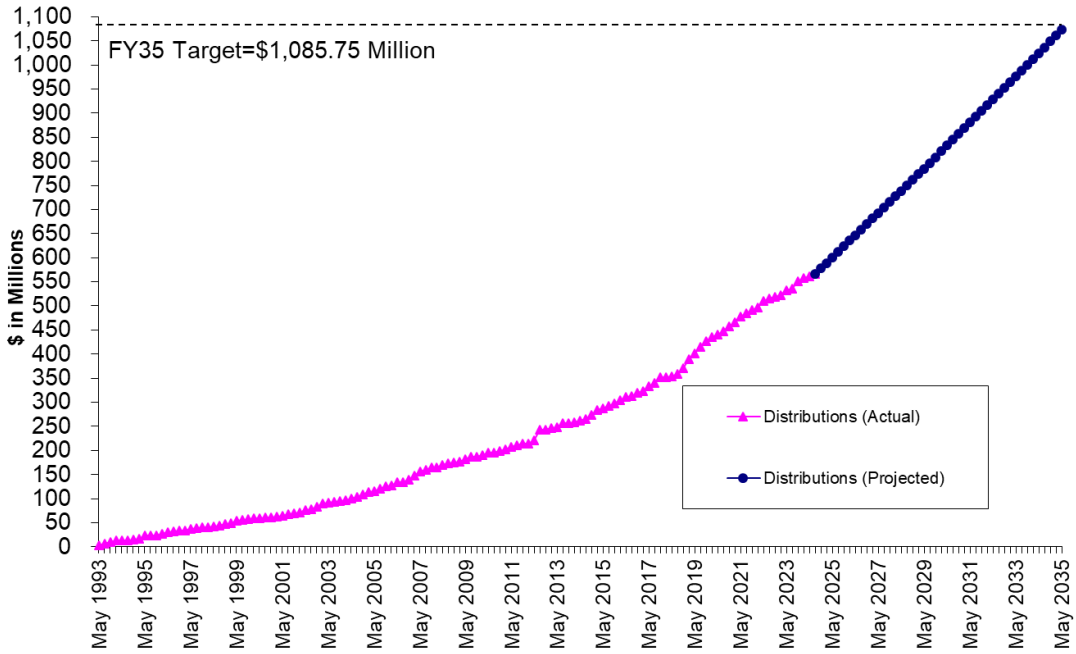
MWRA customer sewer flow averaged 363.5 mgd in the first eight months of CY2024. This is an increase of 5.7 mgd or 1.6% compared to the first eight months of CY2023.

Community Support Programs
1st Quarter – FY25

Infiltration/Inflow Local Financial Assistance Program

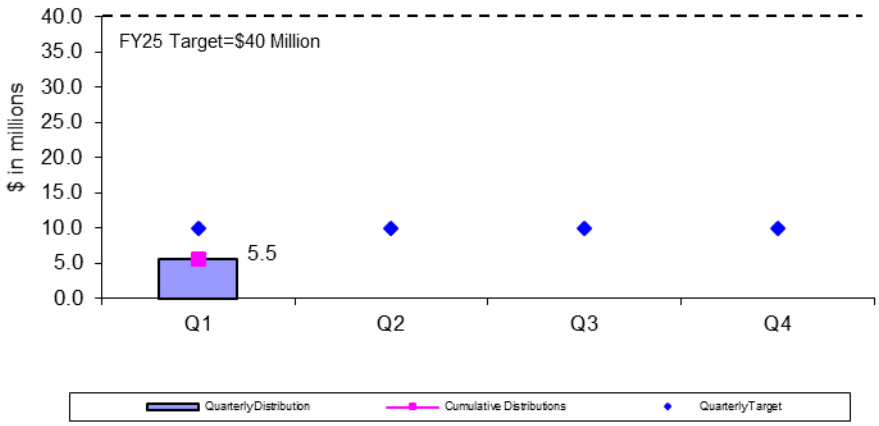
MWRA's Infiltration/Inflow (I/I) Local Financial Assistance Program provides $1085.75 million in grants and interest-free loans (average of about $22 million per year from FY93 through FY35) to member sewer communities to perform I/I reduction and sewer system rehabilitation projects within their locally-owned collection systems. Eligible project costs include: sewer rehabilitation construction, pipeline replacement, removal of public and private inflow sources, I/I reduction planning, engineering design, engineering services during construction, etc. I/I Local Financial Assistance Program funds are allocated to member sewer communities based on their percent share of MWRA's wholesale sewer charge. Phase 1-8 funds (total $300.75 million) were distributed as 45% grants and 55% loans with interest-free loans repaid to MWRA over a five-year period. Phase 9 through 12 funds (total $360 million) are distributed as 75% grants and 25% loans with interest-free loans repaid to MWRA over a ten-year period. Phase 13 funds of $100 million are distribution as ten-year interest-free loan-only funds. Phase 14 funds (total $100 million) are distributed as 75% grants and 25% loans with interest-free loans repaid to MWRA over a ten-year period. Phase 15 provides an additional $100 million in ten-year interest-free loan-only funds. Phase 16 funds (total $125 million) are programmed in the budget beginning in FY26 and will be distributed as 75% grants and 25% loans with interest-free loans repaid to MWRA over a ten-year period.

I/I Local Financial Assistance Program Distribution FY93-FY35



During the 1st Quarter of FY25, $5.5 million in financial assistance (grants and interest-free loans) was distributed to fund local sewer rehabilitation projects in Boston and Stoughton. Total grant/loan distribution to date for FY25 is $5.5 million. From FY93 through the 1st Quarter of FY25, all 43 member sewer communities have participated in the program and $565 million has been distributed to fund 688 local I/I reduction and sewer system rehabilitation projects. Distribution of the remaining funds has been approved through FY35 and community loan repayments will be made through FY45. All scheduled community loan repayments have been made.

FY25 Quarterly Distributions of Sewer Grant/Loans



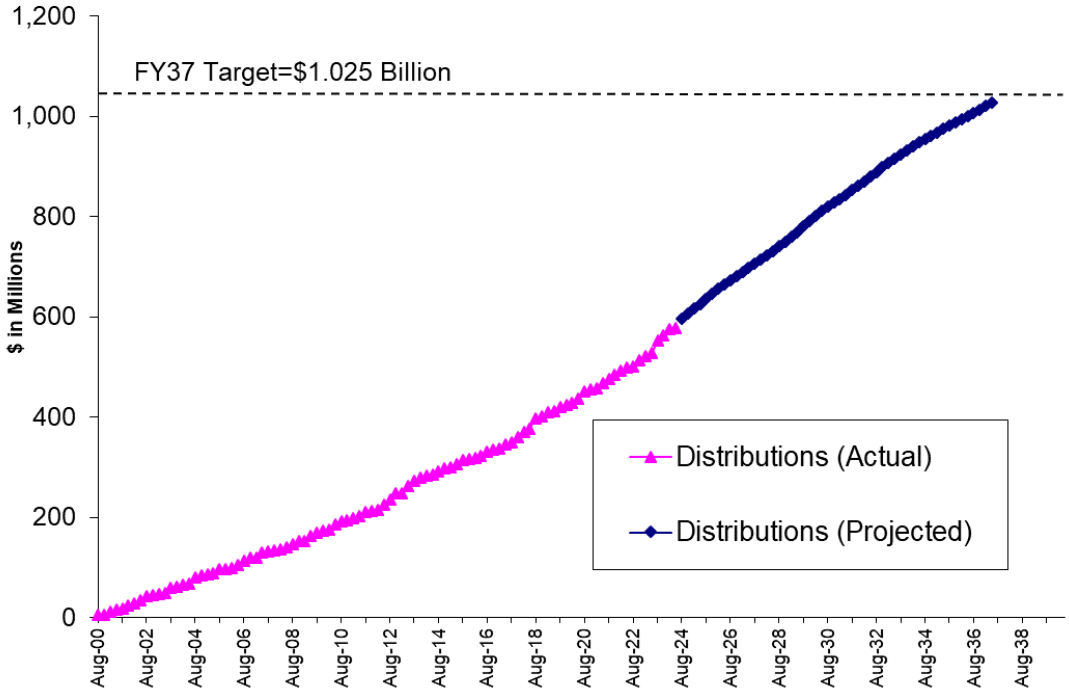
Community Support Programs

1st Quarter – FY25

Local Water System Assistance Program

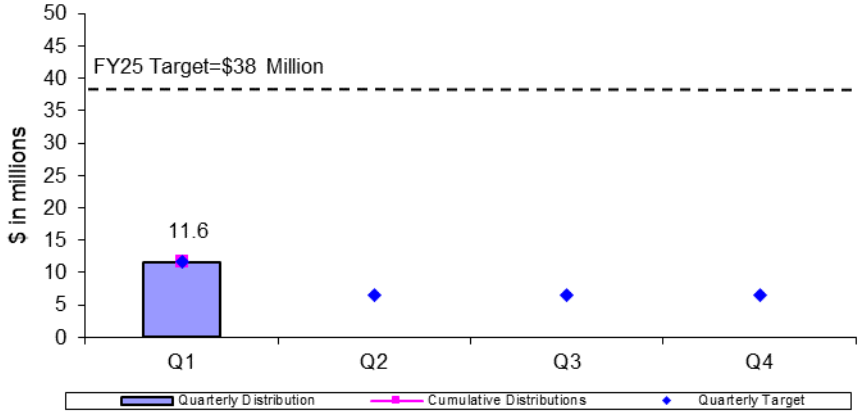
MWRA's Local Water System Assistance Programs (LWSAP) provides $1.025 billion in interest-free loans (an average of about $24 million per year from FY01 through FY35) to member water communities to perform water main rehabilitation projects within their locally-owned water distribution systems. There have been four (3) funding phases: Phase 1 at $222 Million, Phase 2 at $210 Million, and Phase 3 at $293 Million. Eligible project costs include: water main cleaning/lining, replacement of unlined water mains, lead service replacements, valve, hydrant, water meter, tank work, engineering design, engineering services during construction, etc. MWRA partially-supplied communities receive pro-rated funding allocations based on their percentage use of MWRA water. Interest-free loans are repaid to MWRA over a ten-year period beginning one year after distribution of the funds. The Phase 1 water loan program concluded in FY13 with $222 million in loan distributions. The Phase 2 - LWSAP continues distributions through FY25. The Phase 3 LWSAP is authorized for distributions from FY18 through FY30. And the Phase 4 – LWSAP is authorized for distributions from FY25 through FY35.

Local Water System Assistance Program Distribution FY01-FY35



During the 1st Quarter of FY25, $11.6 million in interest-free loans was distributed to fund local water projects in Boston and Norwood. Total loan distribution to date for FY25 is $11.6 million. From FY01 through the 1st Quarter of FY25, $588 million has been distributed to fund 538 local water system rehabilitation projects in 43 MWRA member water communities. Distribution of the remaining funds has been approved through FY35 and community loan repayments will be made through FY45. All scheduled community loan repayments have been made.

FY25 Quarterly Distributions of Water Loans



Community Support Programs
1st Quarter – FY25

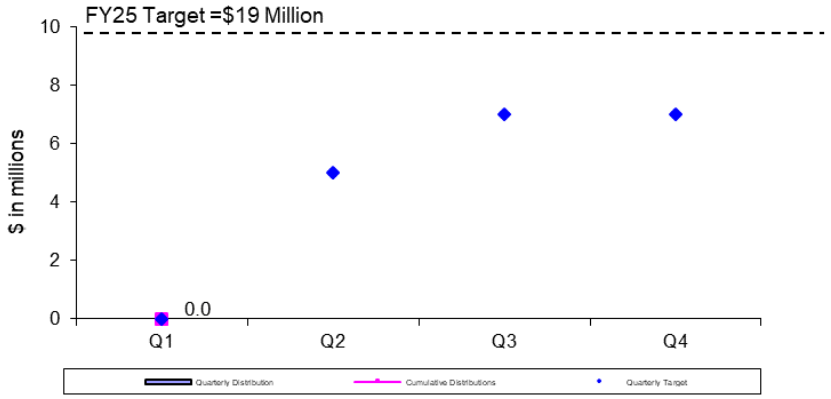
Lead Service Line Replacement Loan Program

By its vote on March 16, 2016, the Board approved an enhancement to the Local Water System Assistance Program to provide up to $100 million in 10-year zero-interest loans to communities solely for efforts to fully replace lead service lines. The Lead Service Line Replacement Loan Program is also referenced as the Lead Loan Program or LLP. Each community can develop its own program, tailored to their local circumstances. MWRA's goal in providing financial assistance to member communities is to improve local water systems so that the high quality water MWRA delivers can make it all the way to the consumer's tap. The presence of a lead service line connecting a home to the main in the street can lead to elevated lead levels in tap water, especially if that water sits stagnant for an extended period. MWRA's stable water quality and effective corrosion control treatment reduce the risk that a lead service line will cause elevated lead levels, and measured lead levels in high risk homes have decreased by 90 percent since corrosion control was brought on-line in 1996. However, the risk of elevated levels remains as long as lead service lines are in use. From the inception of the program through FY24, 46 loans have been made to 17 communities totaling $43.8 million dollars. No lead loans were made in the first quarter of FY25.

Summary of Lead Loans:

Quincy in FY24	$1.50 Million	Somerville in FY22	$1.60 Million	Everett in FY20	$1.0 Million
Winthrop in FY24	$0.98 Million	Revere in FY22	$1.30 Million	Somerville in FY20	$0.90 Million
Chelsea in FY24	$0.30 Million	Chelsea in FY22	$0.30 Million	Chelsea in FY20	$0.30 Million
Melrose in FY24	$1.04 Million	Watertown in FY21	$0.60 Million	Marlborough in FY19	$1.0 Million
Lexington in FY24	$3.88 Million	Marlborough in FY21	$2.0 Million	Winthrop in FY19	$0.50 Million
Watertown in FY24	$0.30 Million	Everett in FY21	$1.50 Million	Chelsea in FY19	$0.10 Million
Malden in FY24	$0.50 Million	Boston in FY21	$2.60 Million	Everett in FY19	$1.0 Million
Chelsea in FY23	$0.50 Million	Winthrop in FY21	$0.80 Million	Needham in FY18	$1.0 Million
Watertown in FY23	$0.30 Million	Chelsea in FY21	$0.30 Million	Winchester in FY18	$0.50 Million
Winthrop in FY23	$0.70 Million	Winchester in FY21	$0.60 Million	Revere in FY18	$0.20 Million
Reading in FY23	$1.50 Million	Everett in FY20	$0.50 Million	Winthrop in FY18	$0.30 Million
Watertown in FY23	$0.30 Million	Marlborough in FY20	$1.0 Million	Marlborough in FY18	$1.0 Million
Winchester in FY23	$0.60 Million	Winchester in FY20	$0.60 Million	Newton in FY17	$4.0 Million
Everett in FY22	$1.5 Million	Winthrop in FY20	$0.70 Million	Quincy in FY17	$1.5 Million
Boston in FY22	$0.90 Million	Weston in FY20	$0.20 Million	Winchester in FY17	$0.50 Million
Winthrop in FY22	$0.80 Million			**TOTAL**	**$43.80 Million**

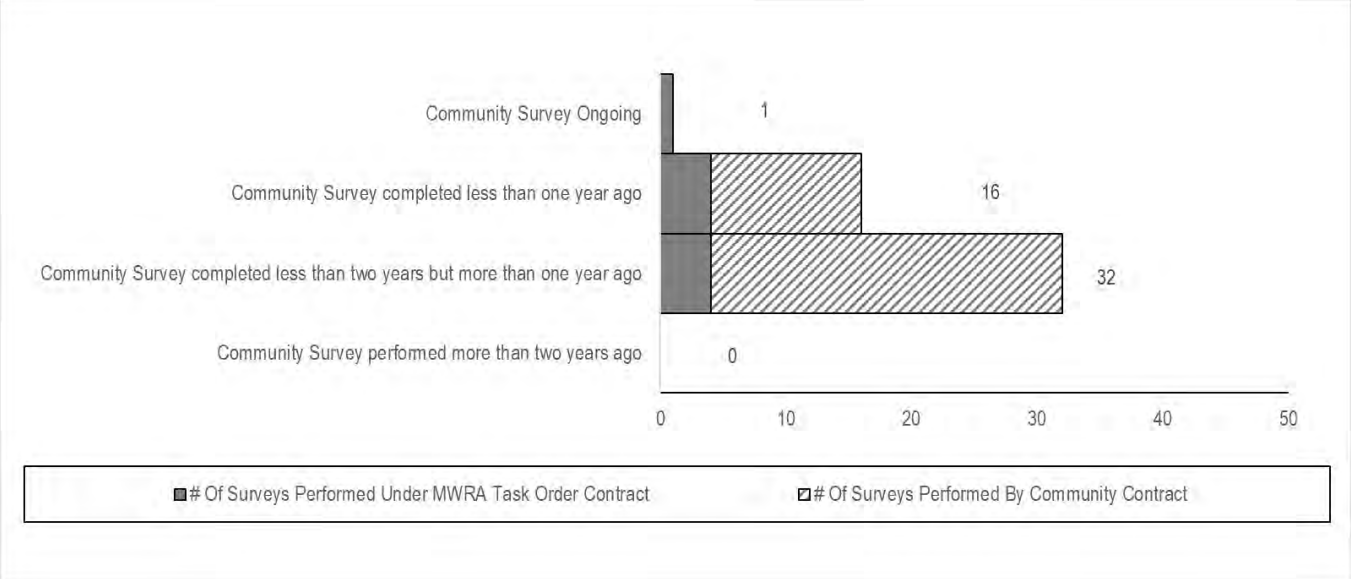
FY25 Quarterly Distributions of Lead Service Line Replacement Loans



Community Support Programs
1st Quarter – FY25

Community Water System Leak Detection

To ensure member water communities identify and repair leaks in locally-owned distribution systems, MWRA developed leak detection regulations that went into effect in July 1991. Communities purchasing water from MWRA are required to complete a leak detection survey of their entire distribution system at least once every two years. Communities can accomplish the survey using their own contractors or municipal crews, or alternatively, using MWRA's task order leak detection contract. MWRA's task order contract provides leak detection services at a reasonable cost that has been competitively procured (3-year, low-bid contract) taking advantage of the large volume of work anticipated throughout the regional system. Leak detection services performed under the task order contract are paid for by MWRA and the costs are billed to the community the following year. During the 1st Quarter of FY25, all member water communities were in compliance with MWRA's Leak Detection Regulation.



Community Water Conservation Outreach

MWRA's Community Water Conservation Program helps to maintain average water demand below the regional water system's safe yield of 300 mgd. Current 5-year average water demand is less than 200 mgd. The local Water Conservation Program includes distribution of water conservation education brochures (indoor - outdoor bill-stuffers) and low-flow water fixtures and related materials (shower heads, faucet aerators, and toilet leak detection dye tabs), all at no cost to member communities or individual customers. The Program's annual budget is $25,000 for printing and purchase of materials. Annual distribution targets and totals are provided in the table below. Distributions of water conservation materials are made based on requests from member communities and individual customers.

	Annual Target	Q1	Q2	Q3	Q4	Annual Total
Educational Brochures	100,000	16,504				**16,504**
Low-Flow Fixtures (showerheads and faucet aerators)	10,000	1,352				**1,352**
Toilet Leak Detection Dye Tablets	------	2,517				**2,517**

BUSINESS SERVICES

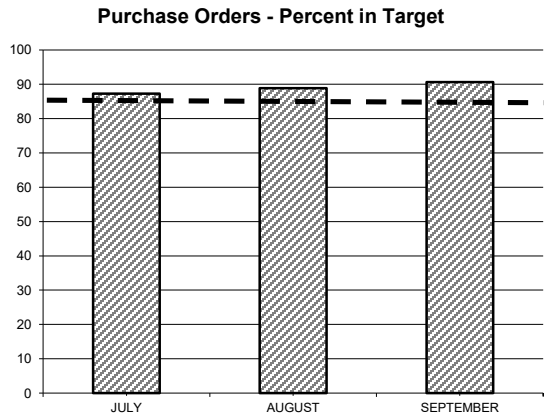
Procurement: Purchasing and Contracts

1st Quarter - FY25

Background: Goal is to process 85% of Purchase Orders and 80% of Contracts within Target timeframes.

Highlights: Processed 97% of purchase orders within target; Average Processing Time was 4.21 days vs. 5.05 days in Qtr1 of FY24. Processed 63% (15 of 24) of contracts within target timeframes; Average Processing Time was 129 days vs. 149 days in Qtr 1 of FY24.

Purchasing



	No.	TARGET	PERCENT IN TARGET
$0 - $500	482	3 DAYS	94.3%
$500 - $2K	635	7 DAYS	98.2%
$2K - $5K	336	10 DAYS	98.2%
$5K - $10K	173	25 DAYS	99.4%
$10K - $25K	53	30 DAYS	96.2%
$25K - $50K	26	60 DAYS	88.4%
Over $50K	31	90 DAYS	90.3%

The Purchasing Unit processed 1736 purchase orders, 78 more than the 1658 processed in Qtr 1 of FY24 for a total value of $28,301,365 versus a dollar value of $25,743,025 in Qtr 1 of FY24.

The purchase order processing target was met for all categories.

Contracts, Change Orders and Amendments

Procurement executed twenty four contracts with a value of $38,381,169 and six amendments with a value of $300,000. Nine contracts were not executed within the target timeframe. One contract was delayed due to the development of a scope of services for a new contract format and coordination with staff in regards to the new scope. Another contract was delayed due to pending permit approvals. Several contracts were delayed in an effort to coordinate bid submission deadlines to maximize competition. A fifth contract was delayed due to bidder questions and contractor delays submitting documents. Another contract was delayed due to selection committee participation requirements. A seventh contract was delayed due to contractor delays in fulfilling registration requirements with the Massachusetts Secretary of State. An additional contract was delayed due to changes to the contract terms. The final contract was delayed due to additional procurement requirements necessary for insurance services. Insurance for all categories of coverage was obtained timely and according to schedule.

Staff reviewed 40 proposed change orders and 27 draft change orders.
Thirty two change orders were executed during the period. The dollar value of all non-credit change orders during Qtr 1 of FY25 was $4,177,769 and the value of credit change orders was ($3,932,263).

Note: A credit change order is a change order that results in a decrease in contract value.

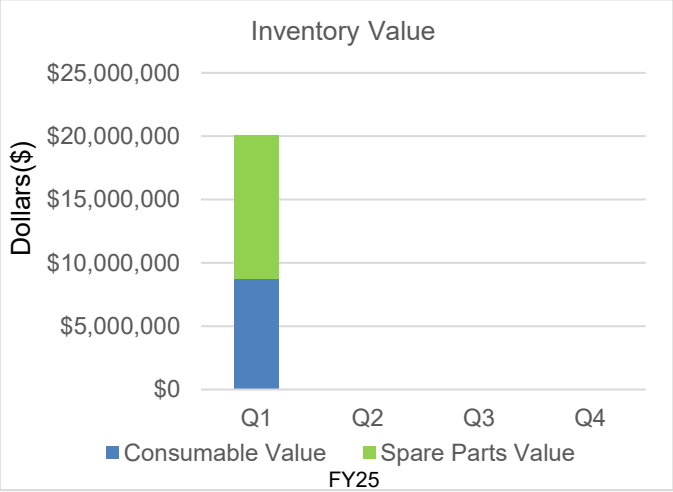
Materials Management

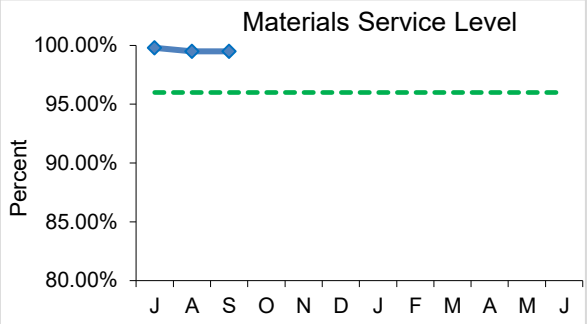
1st Quarter - FY25

The Materials Management department manages the three regional warehouses (Chelsea, Deer Island and Southboro). This includes the replenishment and receipt of both consumable and spare parts items to meet the needs of the MWRA. Additionally, MWRA tools and equipment are safeguarded through the Property Pass unit within the Materials Management department.

Inventory goals focus on:

- Maintaining optimum levels of consumables inventory (office supplies, electrical, safety, etc.) and spare parts inventory (critical items such as actuators, motors, muffin monsters, etc.) necessary to support MWRA Operations and Maintenance. Typically spare parts carry longer lead times.
- Adding new items to inventory to meet changing business needs.
- Reviewing consumables and spare parts for obsolescence.
- Managing and controlling valuable equipment and tools via the Property Pass Program.

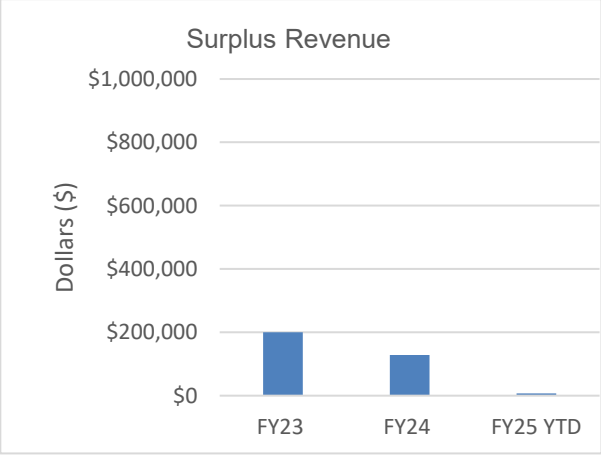


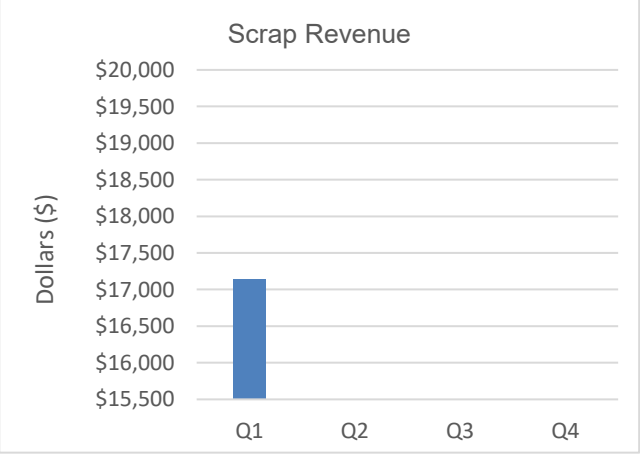


The service level is the percentage of stock requests filled. The goal is to maintain a service level of 96%. Staff issued 7,233 (99.6%) of the 7,262 items requested in Q1 from the inventory locations for a total dollar value of $2,092,289.

Property Pass Program:

- Conducts audits of tools and equipment to ensure the safeguarding of MWRA assets.
- Manages the disposition and sale of surplus tools and equipment through GovDeals, an online auction site.
- Manages the surplusing of scrap metals and materials generating revenue to the MWRA staff.

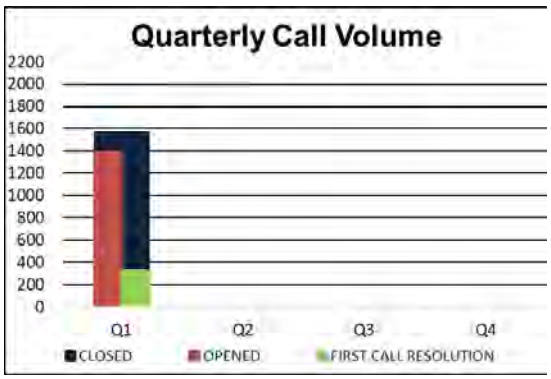




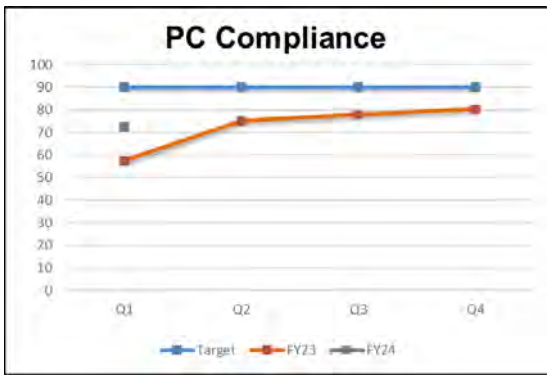
MIS Program

First Quarter – FY25

Numbers & Statistics



Summary of calls managed by the Helpline.



Percentage of user endpoints that are in compliance with system updates. These numbers are a direct reflection of accessibility to these systems. Daytime patching began in January for mobile devices.

Project Updates

Infrastructure & Security

SD-WAN: Seven of ten locations completed. Circuit installation completed in Needham. Firewalls scheduled for installation and cut over in October. Belchertown circuit installation anticipated for October. Staff continue working with vendor on safety plan for Deer Island.

VOIP: Finalizing Ethernet cabling for Deer Island. Drafting CUCM statement of work for upgrade.

VMWare WorkspaceONE: Migration of end points to WorkspaceONE continues, approximately 80% complete.

Oracle Database Appliance Hardware Refresh: Database migrations completed. Updating system documentation with vendor

Server/Database Version Upgrades: Staff continue to meet monthly to review and identify migration paths of infrastructure to maintain support.

Live Stream Webcams: New hardware selected, developing scope of work for installation.

AWIA: DMZ server logging implemented.

Distributed Antenna System: Vendor scheduled to begin repairs Chelsea facility system in July. Services being procured to repair Deer Island system

Library, Record Center, & Training

Library: Completed 30 research requests and provided access to 12 new books/reports, 15 articles, and 5 new standards (outside subscriptions). The Library Portal supported 3,161 user searches (compared to 1,645 total searches in FY24) on topics including construction estimating, geotechnical data, contract documents, CSO control, floatables management, and professional certification study materials.

Record Center (RC): Added 55 new boxes to the RC and handled 255 total boxes. The RC Manager attended 2 virtual RCB meetings. The RC dispositioned 171 physical boxes and performed database/physical box searches for various departments. Research included: Engineering documents, public record requests, staff summaries, personnel files, Law requests, Invoices, various construction contracts.

MIS Training: In Q1, 10 online IT lessons were taken (10 YTD), by 18 employees (18 YTD).

Applications

ECM/Electronic Document Management: Build for the first Staff Summary workflow (Purchasing Staff Summary) began in July and was completed in September. User Acceptance Testing (UAT) to begin in October, with the goal of completing and rolling it out in the fall. Continued to gather requirements in Q1 for building the remaining Staff Summary, Requisition, and Policy processes in ECM. Work continued towards migrating the remaining InfoStar data into ECM in the hopes of formally retiring InfoStar at the end of that project.

MWRA Website Refresh: Went live with the new mwra.com in August. Continue to update content as needed.

Infor Upgrade/Migration: MIS staff are developing the reports, integrations, and configurations required by MWRA end users; unit testing completed development and preparing for the Systems Integration Testing scheduled to start in late October; and continuing to perform analysis and development related to integrating the MWRA Custom applications and Maximo Asset Management application with CloudSuite. MIS completed requirements sessions for an enhanced PIMS/Lawson customer and invoice interface. The vendor (IPS) started development work. MIS also provided file specifications to the project consultant (RPI) to build the interfaces for a number of MWRA partners, including: Great West, Colonial Life, Continental America, AFLAC, MASS DOR GIC Optional Life / LTD Changes, GIC deductions, Hyperion, Positive Pay, GIC Discrepancy Reports and MWRA Retirement integrations. The ERP development team performed data clean-up and validation activities on many business classes and reported any variances back to RPI for correction. Work progressed on the Security configurations of the application, to be tested during Systems Integration Testing.

Maximo/Lawson Interface: This project completed in September. MIS worked with Starboard to resolve issues related to the implementation of the Maximo-Lawson interfaces and will continue to work with end users to resolve any open issues they have. MIS and RPI are also starting the process to develop the integrations needed with Maximo when Lawson is migrated to CloudSuite in August 2025.

Maximo Version Upgrade: This project was completed in April and MIS staff is continuing to resolve issues related to the upgrade. They have implemented the initial IBM recommendations and will continue working with IBM to resolve any remaining issues.

Legal Matters

1st Quarter – FY25

PROJECT ASSISTANCE

Real Estate, Contract, Energy, Environmental, and Other Support:

- **8(m) Permits and License Agreements**: Reviewed one hundred thirteen (113) 8(m) permits, including many related MEPA Section 61 Findings. Drafted DITP license.

- **Real Property**: Revised and finalized five draft notices of offer for property interests in Lynn and Revere, drafted grant of easements from the Cities of Lynn and Revere to MWRA, and reviewed easement plan for Contract 7454 - Section 56 Replacement of Saugus River Crossing. Reviewed newspaper advertising and notice requirements for grant of location for DCR construction access permit for Section 56 Project. Drafted public access 8(m) permit for the Town of Stoneham. Reviewed various property interests, disposition and acquisition processes for Metropolitan Water Tunnel Program; toured prospective sites for North Tunnel. Reviewed deeds and ground leases for property in Waltham concerning boring work. Reviewed lease terms and DCR agreement for property in Boston. Reviewed deed for Commercial Point CSO Facility and improvements thereon. Researched right of entry for property interest with reverter clause. Reviewed property ownership concerning a parcel of land in Natick in MWRA's care, custody and control. Drafted and finalized Cease and Desist Order related to water pipeline section 90 in Hyde Park and Drafted and Cease and Desist Order related to water pipeline section 77 in Dedham. Reviewed appraisal and title documents concerning watershed preservation restriction for Parcel No. W-001266 in Petersham for water supply protection purposes. Reviewed Turkey Hill permit and exhibits and followed-up with telecommunications provider regarding renewal process. Reviewed easement plans for Contract 7216, Interceptor Renewal No. 7 Malden-Melrose (Sections 41/42/49/54/65). Drafted and recorded Certificate with special act and plans confirming MWRA's ownership of Norumbega covered storage real property relative to Chapter 172 of the Acts of 2024. Reviewed recorded documents for parcel of land in Chelsea and prepared confirmatory deed with references to MWRA's subsurface pipeline easements and property details for corresponding plan of land.

- **Environmental**: Prepared comments and/or revisions to comments regarding proposed federal and state legislation concerning the topics of non-flushable wipes and PFAS. Reviewed and revised potential changes to OP.05, Emergency Water Supply Withdrawals, as well as an Emergency Water Supply Agreement with the Town of Wayland. Researched historical Water Quality Standards Variances for the Charles River and Alewife Brook/Upper Mystic River watersheds. Reviewed and revised PCB Interim Measure Status Report for an MWRA facility. Reviewed updates to EPA's Residual Designation Authority Stormwater General Permit(s) development for the Charles River, Mystic River and Neponset River Watersheds. Assisted with preparation of administrative appeals to the Massachusetts Department of Environmental Protection, Office of Appeals and Dispute Resolution filed on September 27, 2024 - In the Matters of Massachusetts Water Resources Authority Challenge to Certain Conditions in Alewife Brook/Upper Mystic River Basin and Lower Charles River/Charles River Basin Variances, OADR Nos. 2024-029 and 2024-030. Assisted Finance and Environmental teams with Financial Responsibility filings for the Underground Storage Tank program.

- **Energy**: Prepared revisions to second draft letter of intent regarding potential solar-pv installation(s) at Deer Island and other Authority facilities. Reviewed federal tax laws and policies regarding Tax Code Section 179D allocations**.** Review of Notice D.P.U. 23-140, *Rulemaking Amending the Net Metering Regulations*, for potential impacts to Authority Net Metering projects*.* Assisting Tunnel Redundancy Program regarding a potential Line Extension Agreement with Eversource regarding electric distribution service for tunnel boring machine locations/projects. Review of draft contract terms regarding electricity supply for MWRA profile accounts.

- **Miscellaneous**: Reviewed documents for submission to Records Conservation Board for disposition. Reviewed terms of construction contract and various documents concerning dispute. Prepared case briefs for various recent Supreme Court decisions. Reviewed Metro West Tunnel memoranda of understanding with various municipalities for Tunnel Redundancy program. Reviewed revisions to MWRA Physical and Environmental Information Security Policy – # ADM.37. Docket research and obtained judicial order from SJC archives. Reviewed statutory requirement for written evaluation of contractor performance on construction projects. Reviewed consultant request for use of MWRA-owned equipment to perform inspection-work at MWRA facility. Reconciled outstanding invoices with telecommunications provider and updated exhibit concerning insurance coverages for Turkey Hill permit renewal.

- **Public Records Requests:** During the First Quarter FY 2025, MWRA received and responded to one hundred sixty-three (163) public records requests.

LITIGATION/CLAIMS - 1st Quarter FY 2025

New Lawsuits:

- There is one new case in 1st Quarter FY 2025.

  Barletta Heavy Division, Inc. v. MWRA; Business Litigation Section, Suffolk Superior Court, C.A. No.2484CV02185 BLS2. The Plaintiff Contractor filed this action on August 16, 2024 against MWRA alleging breach of contract and breach of implied covenant of good faith and fair dealing in connection with the Prison Point CSO Facility Improvements project, MWRA Contract 7462. MWRA's responsive pleading was due on October 21, 2024.

New Claims:

- There are no new claims in 1st Quarter FY 2025.

Significant Developments:

- MWRA v. Baldwin Energy, LLC and Hanover Insurance Company; Business Litigation Section, Suffolk Superior Court C.A. No.2484CV01019-BLS2. On August 30, Plaintiff/Counterclaim Defendant MWRA filed its Partial Motion to Dismiss Counterclaim and Special Motion to Dismiss Counterclaim Count IV with the Court. The court held a hearing on MWRA's motion on September 13. The court issued a decision on September 30, allowing MWRA's Motion to Dismiss Counts III and IV of the Counterclaim. The Court denied the anti-SLAPP motion as to Count IV, but dismissed it pursuant to 12(b)(6).

- In re Aqueous Film-Forming Products Liability Litigation, MDL No. 2:18-mn-02873-RMG, U.S. District Court for the District of South Carolina. On August 19, 2024, MWRA filed Requests for Exclusion from the Tyco Fire Products LP and BASF Corporation class action settlements.

Closed Cases:

- There are no Closed Cases to report.

Closed Claims:

- There are no Closed Claims to report.

Subpoenas:

- During the 1st Quarter of FY 2025, one new subpoena was received, one subpoena closed and one subpoena is pending.

SUMMARY OF PENDING LITIGATION MATTERS

TYPE OF CASE/MATTER	As of June 2024
Construction/Contract/Bid Protest	3
Tort/Labor/Employment	1
Environmental/Regulatory/Other	2
Eminent Domain/Real Estate	0
TOTAL	**6**
Other Litigation matters (restraining orders, etc.) - Class Action suits	4
TOTAL – all pending lawsuits	**10**
Claims not in suit	0
Bankruptcy	6
Wage Garnishment	1
TRAC/Adjudicatory Appeals	3
Subpoenas	1
TOTAL – ALL LITIGATION MATTERS	**21**

TRAC/MISC. ADMIN. APPEALS

Settlement by Agreement of Parties No Settlements by Agreement of the Parties during the 1st Quarter FY 2025.

Stipulation of Dismissal No Stipulations of Dismissal in 1st Quarter FY 2025.

Notice of Dismissal Fine paid in full No Notices of Dismissal, Fines Paid in Full in 1st Quarter FY 2025.

Tentative No Decisions were issued in 1st Quarter FY 2025.

Final Decisions No Final Decisions were issued in 1st Quarter FY 2025.

LABOR AND EMPLOYMENT

New Matters

- The MWRA filed an appeal of the Department of Unemployment Assistance's determination that a former employee qualifies for unemployment benefits, due to the former employee's voluntary resignation.

Significant Developments

- None to report

Matters Concluded

- The Department of Unemployment Assistance affirmed its prior determination that a terminated employee is indefinitely ineligible for benefits, thereby ruling in favor of the MWRA and denying the former employee benefits.

- The MCAD affirmed its prior dismissal of an employee's complaint of disability discrimination and retaliation.

- An arbitrator issued an award in favor of the MWRA, ruling that a union's grievance was not substantively arbitrable because the broad inherent management rights included in the enabling act grants the MWRA the right of assignment.

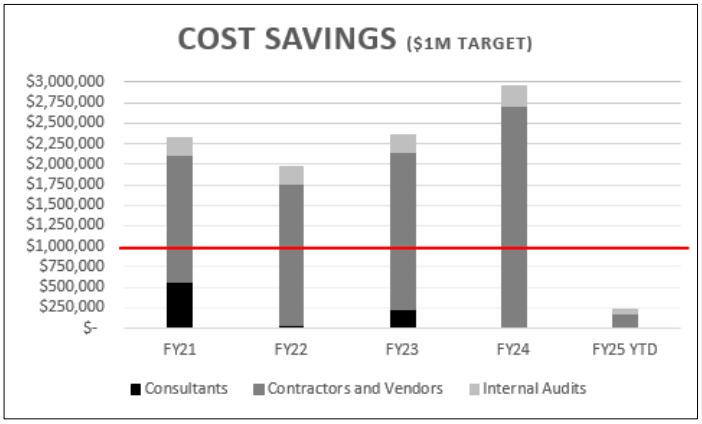
INTERNAL AUDIT AND CONTRACT AUDIT ACTIVITIES

1st Quarter - FY25

Purpose

Internal Audit evaluates the effectiveness of internal controls and procedures and monitors the quality, efficiency and integrity of the Authority's operating and capital programs. Through our audits and reviews, we assess whether internal controls are functioning as intended and that only reasonable, allowable and allocable costs are paid to consultants, contractors and vendors.

Cost Savings	FY25 YTD
Consultants	$2,162
Contractors and Vendors	$170,057
Internal Audits	$61,486
Total	$233,705



Highlights

During the 1st quarter FY25, Internal Audit (IA) performed a consultative analysis of telework compliance which is nearing completion. In addition, IA initiated an audit of MWRA Inflow/Infiltration (I/I) Local Financial Assistance Program.

In addition, IA completed 1 incurred cost audit, 2 labor burden reviews, and 3 consultant preliminary reviews. There are 5 incurred cost audits and 3 labor burden reviews in process. IA also issued 25 indirect cost rate letters to consultants following a review of their consultant disclosure statements.

Status of Recommendations

During FY25, 6 recommendations were closed.

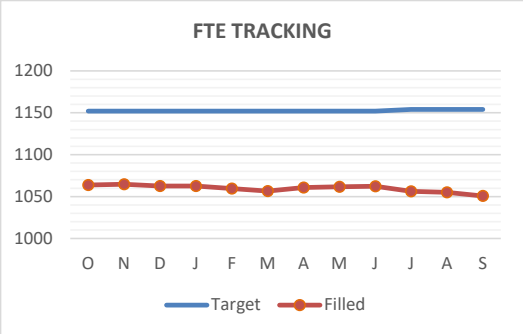
IA follows-up on open recommendations on a continuous basis. All open recommendations have target dates for implementation and are generally targeted to be closed within 12 months of the audit report issue date.

Report Title (issue date)	Audit Recommendations		
	Open	Closed	Total
Accounts Payable Process (3/14/2024)	2	4	6
MWRA Payroll (3/19/2024)	1	2	3
MIS Asset Management (6/28/2024)	2	5	7
Total Recommendations	**5**	**11**	**16**

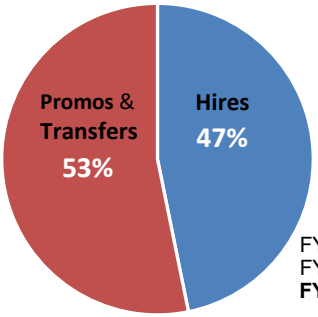
OTHER MANAGEMENT

Workforce Management

1st Quarter - FY25



Position Filled by Hires/Promos & Transfer for YTD



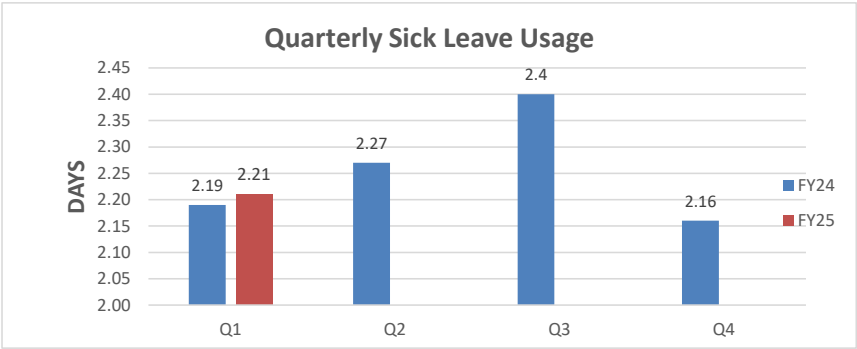
	Pr/Trns	Hires	Total
FY23	133 (59%)	91(41%)	224
FY24	117 (56%)	93 (44%)	210
FY25	25 (53%)	22 (47%)	47

FY25 Budget for FTE's = 1154
FTE's as of Sept = 1050.7
Tunnel Redundancy as of Sept 2024 = 9

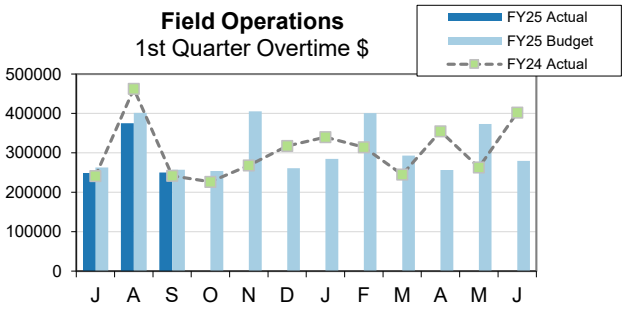
POSITION CHANGE by FY

FY	HIRES	PROMOS	TRANSFER	RETIRE	RESIGN	DISMISS	DECEASED
FY21	64	66	15	58	15	2	2
FY22	65	108	30	82	45	2	3
FY23	91	118	15	46	31	5	5
FY24	93	97	20	48	30	5	4
FY25*	22	20	5	26	8	0	0

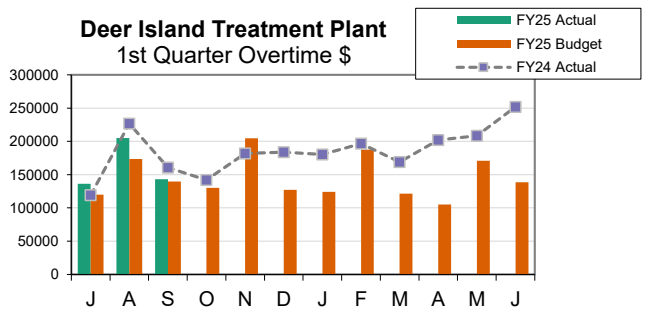
*** as of 9/30/2024**



Average quarterly sick leave for the 1st Quarter of FY25 has increased as compared to the 1st Quarter of FY24 (2.21 from 2.19)



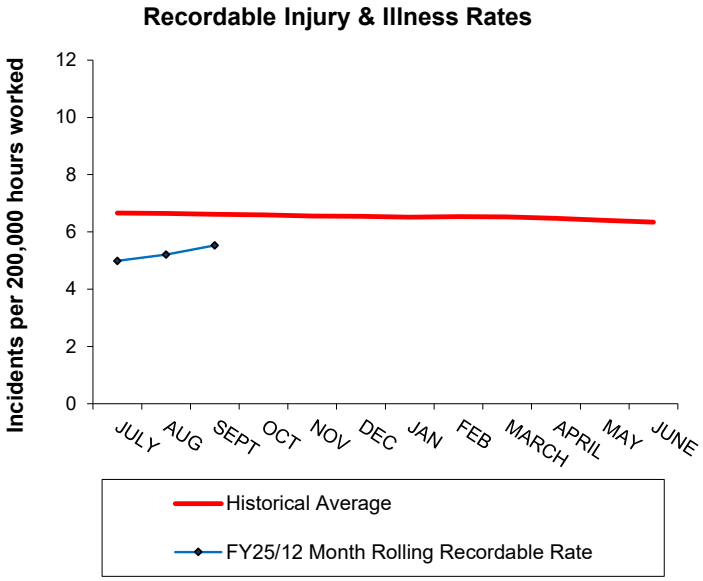
Total Overtime for Field Operations for First Quarter (Q1) (FY25) was $874k, which is $47k or 5.1% under budget. Lower than anticipated rain events contributed to lower spending in Q1. Rain events totaled $227k, or 49% of Emergency for FOD in Q1.Total Planned Scheduled/Deadline Maintenance was $254k, which was comprised of Work Completion OT of $32k; Planned Off Hours OT of $159k; Project Deadline OT of $26k, which all planned OT combined was over budget for Q1 by 7.5%. Operator Coverage OT for Q1 was $110k; Community Assistance, i.e., community water fountain support and as-needed cities and towns emergency assistance was $26k for the First Quarter (Q1) for FY25.

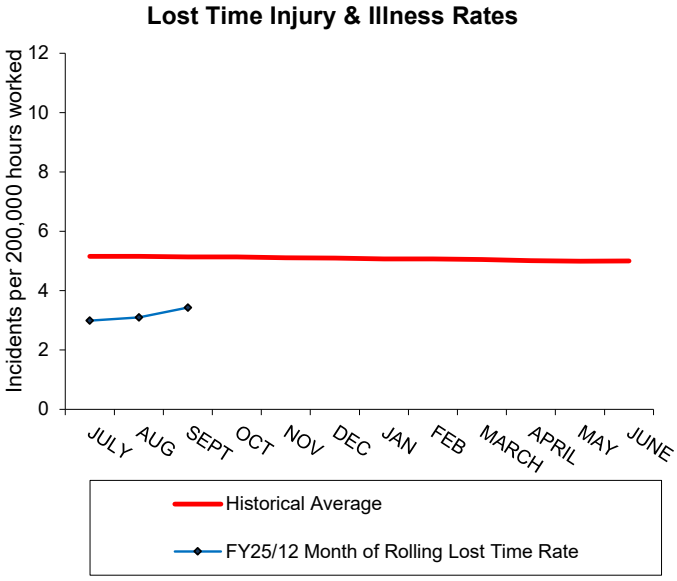


Total overtime for Deer Island for the first quarter (Q1) (FY25) was $485k, which is $51k or 11.9% over budget -due to higher than anticipated Planned/Unplanned of $75k - driven by Maintenance $21k, Thermal $18k & Wastewater Ops $17k. Shift Coverage was $11k driven by Wastewater Ops $44k offset by Thermal ($33k). Storm Coverage ($35k).

Workplace Safety

1st Quarter - FY25





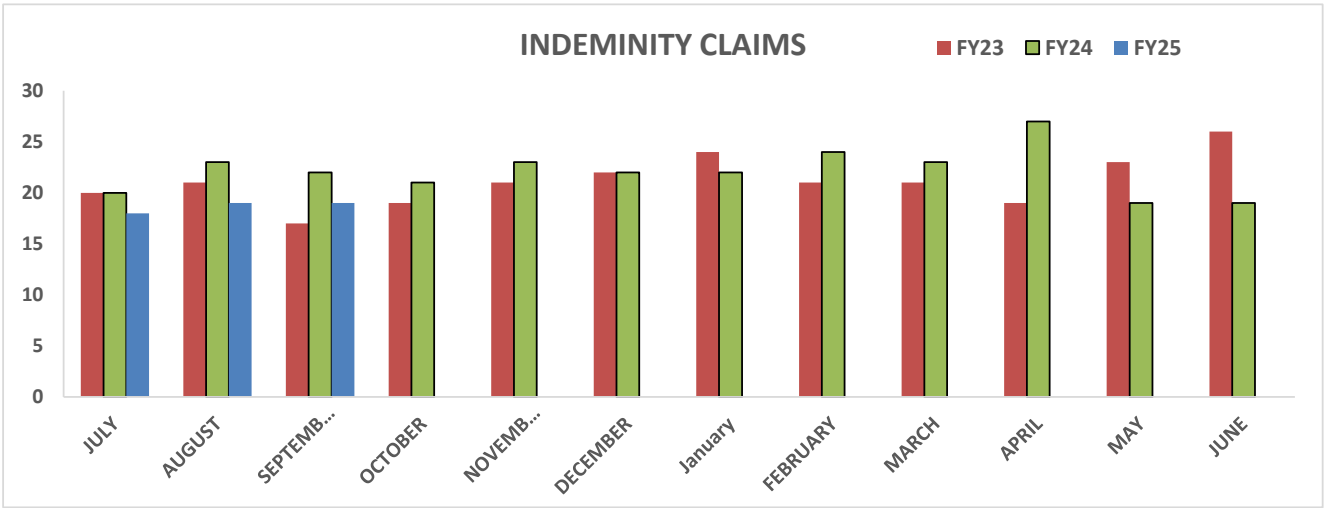
1 “Recordable" incidents are all work-related injuries and illnesses which result in death, loss of consciousness, restriction of work or motion, transfer to another job, or require medical treatment beyond first aid. Each month this rate is calculated using the previous 12 months of injury data.

2 "Lost-time" incidents, a subset of the recordable incidents, are only those incidents resulting in any days away from work, days of restricted work activity or both - beyond the first day of injury or onset of illness. Each month this rate is calculated using the previous 12 months of injury data.

3 The “Historical Average” is computed using the actual MWRA monthly incident rates for FY04 through FY24

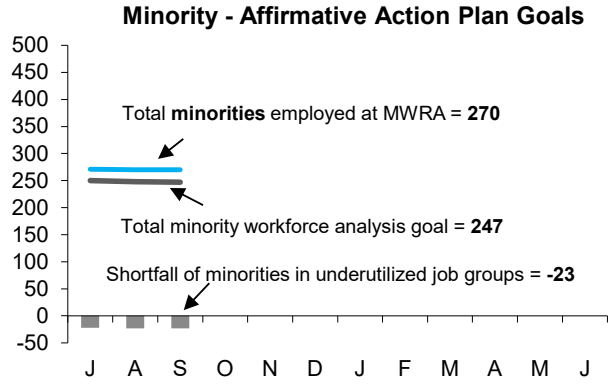
WORKERS COMPENSATION HIGHLIGHTS

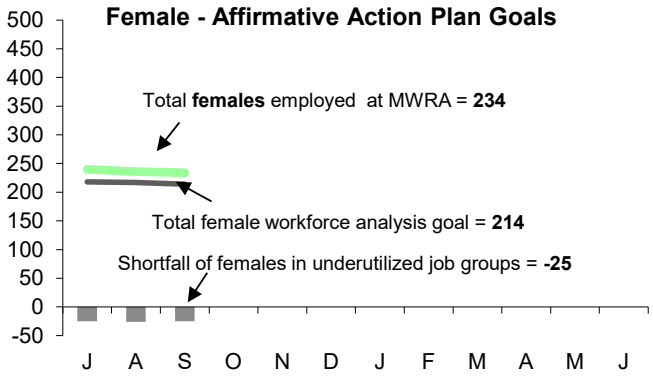
	1st Quarter Information		
	New	Closed	Open Claims
Lost Time	2	2	29
Medical Only	3	5	106
Report Only	4	4	
	QYTD		FYTD
Regular Duty Returns	4		4
Light Duty Returns	1		1
Indeminity payments as of Seotenber 2024 included in open claims listed			19



MWRA Job Group Representation

1st Quarter - FY25





Highlights:

At the end of Q1 FY25, 5 job groups or a total of 23 positions are underutilized by minorities as compared to 7 job groups for a total of 23 positions at the end of Q1 FY24; for females 8 job groups or a total of 25 positions are underutilized by females as compared to 6 job groups or a total of 27 positions at the end of Q1 FY24. During Q1, 9 minorities and 4 females were hired. During this same period 6 minorities and 12 females were terminated.

Underutilized Job Groups - Workforce Representation

Job Group	Employees as of 9/30/2024	Minorities as of 9/30/2024	Achievement Level	Minority Over or Underutilized	Females As of 9/30/2024	Achievement Level	Female Over or Underutilized
Administrator A	23	4	3	1	10	6	4
Administrator B	25	5	6	-1	8	10	-2
Clerical A	23	9	5	4	18	17	1
Clerical B	22	6	3	3	3	6	-3
Engineer A	82	17	21	-4	19	23	-4
Engineer B	58	21	14	7	18	11	7
Craft A	115	19	24	-5	0	4	-4
Craft B	123	24	24	0	0	5	-5
Laborer	59	17	15	2	5	2	3
Management A	86	18	19	-1	32	25	7
Management B	35	10	7	3	5	8	-3
Operator A	63	4	16	-12	4	7	-3
Operator B	67	22	11	11	4	2	2
Professional A	29	8	8	0	15	13	2
Professional B	164	52	49	3	71	56	15
Para Professional	39	14	10	4	15	11	4
Technical A	46	17	11	6	6	7	-1
Technical B	5	3	1	2	1	1	0
Total	**1064**	**270**	**247**	**46/-23**	**234**	**214**	**45/-25**

AACU Candidate Referrals for Underutilized Positions

Job Group	Job Title	# of Vacancies	Requisition Internal/ External	Promotions/ Transfers	AACU Referral External	Position Status = New Hire/Promotion
Clerical B	Warehouse Material Handler	1	Ext.	0	0	NH = WM
Engineer A	Program Mgr, Metro Meter Maint	1	Int.	1	0	PROMO= WM
Engineer A	Program Manager, Ops Engineering	1	Int.	1	0	PROMO= WM
Engineer A	Sr Prog Mgr Tech Support Qual	1	Int./Ext.	1	0	PROMO= WF
Engineer A	Proj Engineer, Monitor&Control	1	Ext.	0	0	NH = WM
Craft A	M & O Specialist	1	Ext.	0	0	NH = WM
Craft A	Unit Supervisor-HVAC	1	Int./Ext.	1	0	PROMO= WM
Craft B	Heavy Equipment Operator	2	Int./Ext.	1	0	NH=WM, PROMO= WM
Craft B	HVAC Technician	1	Ext.	0	0	NH = HM
Craft B	Motor Equipment Repairman	1	Ext.	0	0	NH = WM
Craft B	Plumber/Pipefitter	1	Ext.	0	0	NH = WM
Management A	Sr Program Manager	1	Int./Ext.	1	0	PROMO= WM
Management A	Prog Mgr, Environmental Monitoring	1	Int./Ext.	1	0	PROMO = WM
Management B	Operations Supervisor	1	Int./Ext.	1	0	PROMO = WM
Technical A	Sr Scada Maint Technician	1	Int./Ext.	1	0	PROMO = WM
Technical A	Data Management Coord	1	Int./Ext.	1	0	PROMO= WM

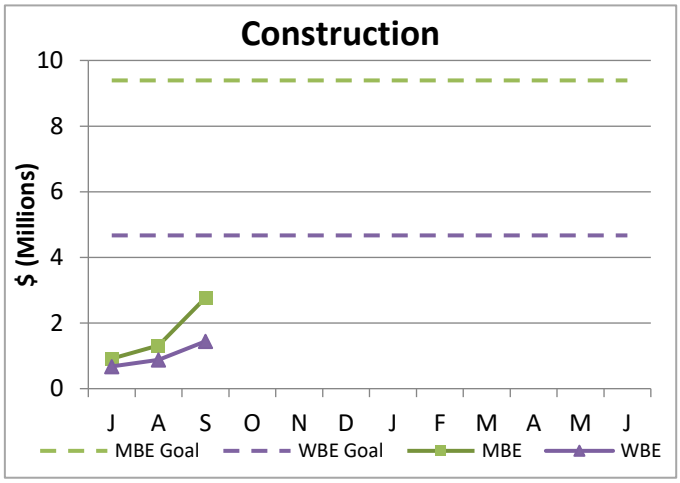
Minority/Women-Owned Business Enterprise (MBE/WBE) Expenditures

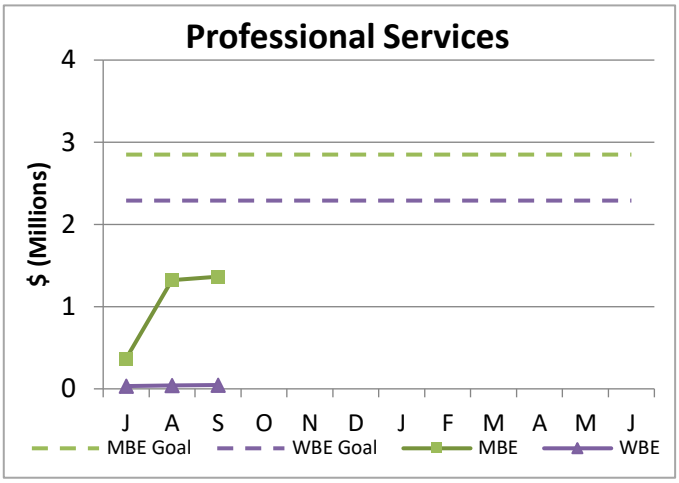
1st Quarter – FY25

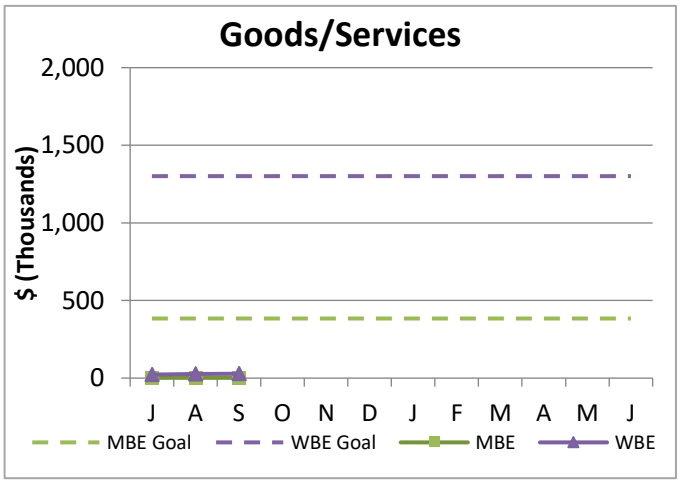
MBE/WBE targets are set based on annual MWRA expenditure forecasts for construction, professional services, and goods/services. Percentage goals are applied to 85% of the total construction and 75% of the total professional services projected spending for the year. Certain projects that do not meet the established monetary thresholds and/or have limited opportunities for subcontracting have been excluded as they have no MBE/WBE spending goals.

Construction: 7.24% MBE / 3.6% WBE Professional Services: 7.18% MBE / 5.77% WBE

Spending goals for Goods and Services are based on the average spending of MBE/WBE dollars during the previous 5 years. MBE/WBE percentage goals are established according to an internal 2002 Availability Analysis and MassDEP's annual Availability Analysis. Consistent with this guidance, Non-Professional Services are included in Goods/Services category.







MBE					WBE			
FY25 YTD		FY24			FY25 YTD		FY24	
Amount	% of goal	Amount	% of goal		Amount	% of goal	Amount	% of goal
$2,769,786	29.5%	$1,701,938	22.1%	Const.	$1,442,198	30.9%	$3,086,463	80.5%
$1,364,739	47.9%	$1,366,350	29.7%	Prof. Svcs.	$46,621	2.0%	$201,066	5.4%
$1,724	0.4%	$123,536	30.3%	Goods/Svcs.	$28,060	2.2%	$1,031,507	75.7%
$4,136,249	32.8%	$3,191,824	25.1%	**Totals**	$1,516,879	18.4%	$4,319,036	48.6%

MWRA FY25 CEB Expenses

1st Quarter – FY25

As of September 2024, total expenses are $211.1 million, $5.8 million or 2.7% lower than budget, and total revenue is $224.9 million, $0.9 million or 0.4% over the estimate, for a net variance of $6.7 million.

Expenses –

Direct Expenses are $70.6 million, $4.6 million or 6.1% under budget.

- **Wages & Salaries** were $4.5 million under budget or 14.1%. Regular pay is $4.5 million under budget, due to lower head count, and timing of backfilling positions. YTD through September, the average Full Time Equivalent (FTE) positions were 1,068 or 100 below the 1,168 FTE's budgeted.
- **Ongoing Maintenance** expense was $1.2 million over budget or 13.1% due to higher than anticipated project spending as Plant & Machine Services were $2.0 million over budget primarily due to timing of Deer Island Treatment Plant annual boiler maintenance.
- **Professional Services** expense was $519k under budget or 18.2% primarily due to lower Other Professional Services and Lab Testing & Analysis, which are under budget by $249k and $140k, respectively.
- **Other Materials** expense was $485k over budget or 40.1% primarily due to greater than anticipated Computer Hardware purchases, which were $363k over budget.
- **Fringe Benefits** expenses are $379k under budget or 5.5%, primarily due to lower spending for Health Insurance of $364k, reflecting the lower than budgeted head count. As of September FTEs were 100 below budget.
- **Utilities expenses** are under budget by $348k million or 5.1%, reflecting lower electricity spending of $445k. This underspending is due to lower T&D pricing from Eversource at DITP of $233k and reduced demand at Field Operations of $224k due to fewer wet weather events.

Indirect Expenses were $29.7 million, $342k or 1.1% below budget due to lower than budgeted Watershed Reimbursement of $318k.

Capital Finance Expenses totaled $110.8 million, $835k under budget or 0.7%. The positive variance was a result of lower than budget variable interest expense of $835k due to lower than anticipated interest rates.

Revenue and Income –

Total Revenue and Income is $224.9 million, $0.9 million or 0.4% over the estimate. The favorable variance was driven by Investment Income of $7.4 million, $831k over the budget due to higher than budget interest rates.

	Sep 2024 Year-to-Date			
	Period 3 YTD Budget	Period 3 YTD Actual	Period 3 YTD Variance	%
EXPENSES				
WAGES AND SALARIES	$ 31,682,818	$ 27,205,421	$ (4,477,397)	-14.1%
OVERTIME	1,520,033	1,460,401	(59,632)	-3.9%
FRINGE BENEFITS	6,838,587	6,459,730	(378,857)	-5.5%
WORKERS' COMPENSATION	518,359	557,331	38,972	7.5%
CHEMICALS	5,678,227	5,368,244	(309,983)	-5.5%
ENERGY AND UTILITIES	6,783,712	6,435,842	(347,870)	-5.1%
MAINTENANCE	9,426,931	10,661,722	1,234,791	13.1%
TRAINING AND MEETINGS	149,667	69,010	(80,657)	-53.9%
PROFESSIONAL SERVICES	2,847,216	2,327,837	(519,379)	-18.2%
OTHER MATERIALS	1,208,965	1,694,291	485,326	40.1%
OTHER SERVICES	8,575,697	8,389,778	(185,919)	-2.2%
TOTAL DIRECT EXPENSES	**$ 75,230,212**	**$ 70,629,607**	**$ (4,600,603)**	**-6.1%**
INSURANCE	$ 1,117,761	$ 1,093,588	$ (24,173)	-2.2%
WATERSHED/PILOT	4,880,952	4,563,216	(317,736)	-6.5%
HEEC PAYMENT	1,838,571	1,838,568	(3)	0.0%
MITIGATION	455,891	455,891	-	0.0%
ADDITIONS TO RESERVES	476,570	476,570	-	0.0%
RETIREMENT FUND	21,264,519	21,264,519	-	0.0%
POST EMPLOYEE BENEFITS	-	-	-	---
TOTAL INDIRECT EXPENSES	**$ 30,034,264**	**$ 29,692,352**	**$ (341,913)**	**-1.1%**
STATE REVOLVING FUND	$ 20,037,575	$ 20,037,575	$ -	0.0%
SENIOR DEBT	74,535,452	74,535,452	-	0.0%
DEBT SERVICE ASSISTANCE	-	-	-	---
CURRENT REVENUE/CAPITAL	-	-	-	---
SUBORDINATE MWRA DEBT	16,271,421	16,271,421	-	0.0%
LOCAL WATER PIPELINE CP	-	-	-	---
CAPITAL LEASE	804,265	804,265	-	0.0%
VARIABLE DEBT	-	(834,845)	(834,845)	---
DEFEASANCE ACCOUNT	-	-	-	---
DEBT PREPAYMENT	-	-	-	---
TOTAL CAPITAL FINANCE EXPENSE	**$ 111,648,713**	**$ 110,813,868**	**$ (834,845)**	**-0.7%**
TOTAL EXPENSES	**$ 216,913,189**	**$ 211,135,827**	**$ (5,777,361)**	**-2.7%**
REVENUE & INCOME				
RATE REVENUE	$ 213,872,000	$ 213,872,000	$ -	0.0%
OTHER USER CHARGES	2,971,172	3,035,035	63,863	2.1%
OTHER REVENUE	635,352	651,647	16,295	2.6%
RATE STABILIZATION	-	-	-	---
INVESTMENT INCOME	6,527,772	7,359,087	831,315	12.7%
TOTAL REVENUE & INCOME	**$ 224,006,296**	**$ 224,917,769**	**$ 911,472**	**0.4%**

Cost of Debt
1st Quarter – FY25

MWRA borrowing costs are a function of the fixed and variable tax exempt interest rate environment, the level of MWRA's variable interest rate exposure and the perceived creditworthiness of MWRA. Each of these factors has contributed to decreased MWRA borrowing costs since 1990.

Average Cost of MWRA Debt FYTD

Fixed Debt ($2.79 billion)	3.25%
Variable Debt ($343.7 million)	3.83%
SRF Debt ($675.81 million)	1.78%
Weighted Average Debt Cost ($3.32 billion)	3.04%

Most Recent Senior Fixed Debt Issue
April 2024

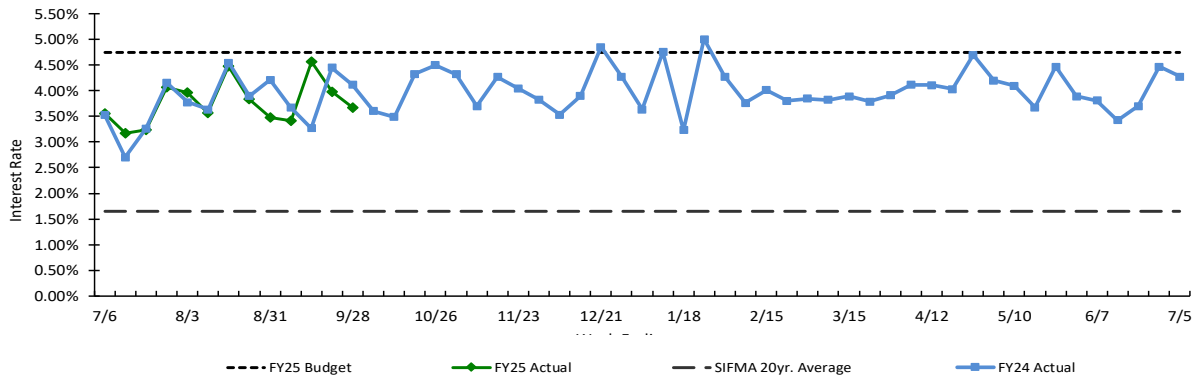
2024 Series B and C ($445.5 million)	3.49%

Bond Deal	1998AB	2000A	2000D	2002B	2002J	2003D	2004A	2004B	2005A	2006AB	2007AB	2009AB	2010AB	2011B
Rate	5.04%	6.11%	5.03%	5.23%	4.71%	4.64%	5.05%	4.17%	4.22%	4.61%	4.34%	4.32%	4.14%	4.45%
Avg Life	24.4 yrs	26.3 yrs	9.8 yrs	19.9 yrs	19.6 yrs	18.4 yrs	19.6 yrs	13.5 yrs	18.4 yrs	25.9 yrs	24.4 yrs	15.4 yrs	16.4 yrs	18.8 yrs

Bond Deal	2011C	2012AB	2013A	2014D-F	2016BC	2016D	2017BC	2018BC	2019BC	2019EFG	2020B	2021BC	2023BC	2024BC
Rate	3.95%	3.93%	2.45%	3.41%	3.12%	2.99%	2.98%	3.56%	2.82%	2.66%	2.33%	2.56%	3.35%	3.49%
Avg Life	16.5 yrs	17.9 yrs	9.9 yrs	15.1 yrs	17.4 yrs	18.8yrs	11.2 yrs	11.7yrs	11.9yrs	9.73 yrs.	15.6 yrs	12.2 yrs	10.45 yrs	10.53 yrs

Weekly Average Variable Interest Rates vs. Budget

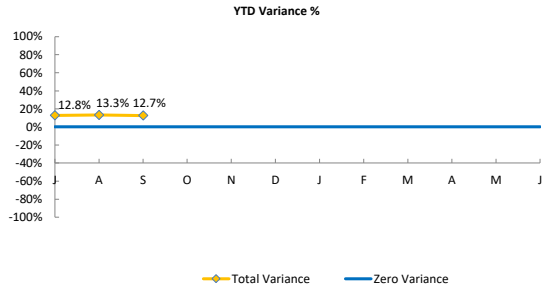
MWRA currently has eight variable rate debt issues with $343.7 million outstanding, excluding commercial paper. Variable rate debt has been less expensive than fixed rate debt in recent years as short-term rates have remained lower than long-term rates on MWRA debt issues. In September, the Securities Industry and Financial Markets Association rate ranged from a high of 4.210% to a low of 2.840% for the month. MWRA's issuance of variable rate debt, although consistently less expensive in recent years, results in exposure to additional interest rate rise as compared to fixed rate debt. z



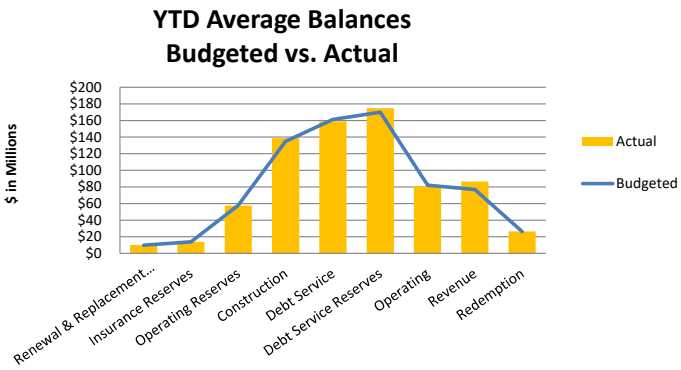
Investment Income

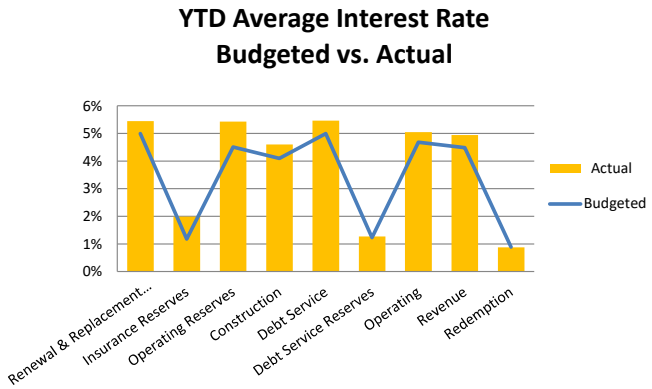
1st Quarter – FY25

- YTD variance is 12.7%, $831 thousand, over budget due primarily to higher than budgeted interest rates.

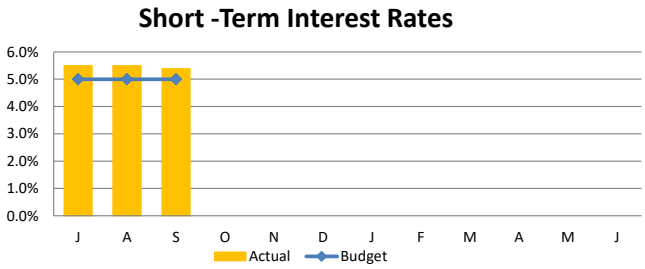


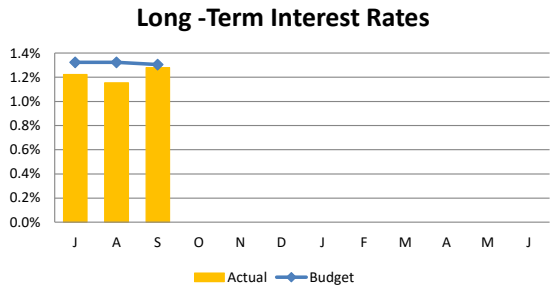
	YTD BUDGET VARIANCE			
	($000)			
	BALANCES IMPACT	RATES IMPACT	TOTAL	%
Renewal & Replacement Reserves	$0	$11	$11	8.8%
Insurance Reserves	$0	$28	$28	69.1%
Operating Reserves	-$3	$131	$128	19.9%
Construction	$38	$166	$204	15.0%
Debt Service	-$29	$182	$153	7.7%
Debt Service Reserves	$15	$17	$32	6.3%
Operating	-$14	$84	$70	7.4%
Revenue	$103	$102	$205	24.1%
Redemption	$0	$0	$0	-0.7%
Total Variance	$111	$721	$831	12.7%

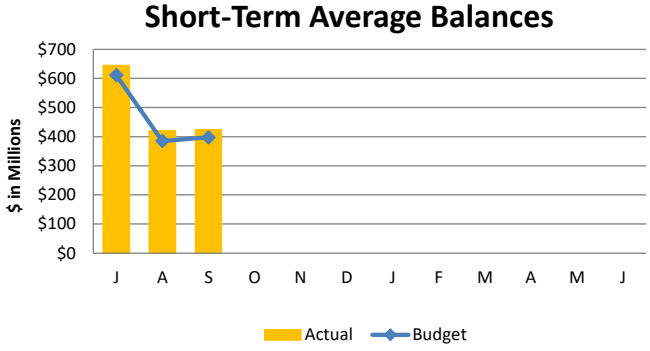


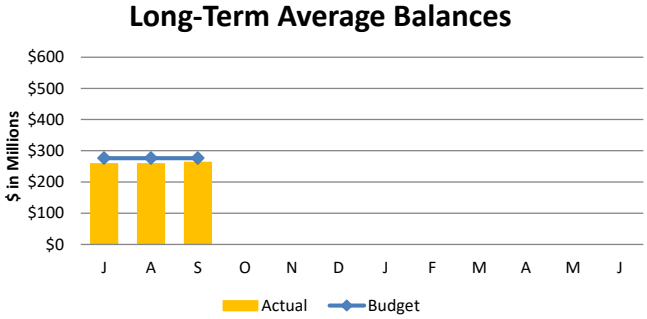


Monthly









STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: November 13, 2024
SUBJECT: Internal Audit Department Activities Report – FY2024

COMMITTEE: Administration, Finance & Audit

X INFORMATION
__ VOTE

Claude J. Cormier, Director, Internal Audit
Preparer/Title

RECOMMENDATION:

For information only. Internal Audit presents annually to the Board, the results of completed assignments and the status of active and planned assignments. Every quarter, Internal Audit utilizes the Orange Notebook to discuss briefly recently issued reports and to report on the status of open audit recommendations and cost savings. This Staff Summary includes a discussion of activities since Internal Audit's last report to the Board in October 2023.

DISCUSSION:

In FY2024, a total dollar savings of $2,950,853 was recognized from numerous assignments, including internal audits, management advisory services, consultant incurred cost audits, consultant preliminary reviews, construction labor burden reviews, the true-up and review of HEEC billings, and contract negotiation support.

Internal Audit's goal is to provide sufficient audit coverage to give reasonable assurance that internal management controls are functioning as intended and that only reasonable, allowable and allocable costs are paid to consultants, contractors and vendors. Audit coverage is provided through performance audits that analyze and evaluate MWRA programs and activities to determine if they are being carried out effectively and efficiently, compliance audits that focus on adherence to MWRA policies and procedures, contractual requirements, rules or regulations and management advisory services.

The development of the Annual Audit Plan is based on Internal Audit's risk assessment of program and management controls, as well as input from MWRA senior managers and the MWRA Advisory Board. The actual scheduling and completion of audit assignments depend on staff availability, which can be impacted by control issues needing immediate attention or by unscheduled special requests for management advisory services.

Attachment 1 lists assignments completed since Internal Audit's last report to the Board, assignments currently in process and additional assignments planned to commence in FY2025.

Internal Audits and Management Advisory Services

Internal Audit follows up on open recommendations (quarterly basis). During FY2024, Internal Audit worked with management to close 7 recommendations. Internal Audit has made tremendous progress with Auditees to close recommendations within 12 months from issuance of the audit report.

Accounts Payable Process (Controls and Procedures)

An audit of Accounts Payable Process controls and procedures was completed (audit report issued March 2024). The audit consisted of a review of documented policies and procedures, access privileges related to the vendor master file, segregation of duties employed on accounts payable procedures and controls, internal controls designed to prevent unauthorized vendor master edits, accuracy of payments, and prevention of duplicate payments.

Internal Audit issued six recommendations related to enhancing documented policies and procedures, promoting sufficient segregation of duties, deploying vendor master management best practices and designing internal controls to reduce the risk of accounts payable error and/or fraud. Four recommendations were closed as of June 30, 2024.

Payroll Process (Controls and Procedures)

An audit of Payroll Process controls and procedures was completed (audit report issued March 2024). The audit consisted of a review of documented policies and procedures, access privileges related to the employee master file, segregation of duties employed on payroll procedures and controls, the security of personal identifiable information, the accuracy and completeness of longevity payments, sick time buy back, and retroactive increases to base payroll, and lastly, the accuracy, completeness and eligibility of COVID-19 hazard pay to certain employees.

Internal Audit issued three recommendations related to enhancing documented policies and procedures, and establishing enhanced management review and reconciliation procedures related to less frequent, non-standard payroll transactions. One recommendation was closed as of June 30, 2024.

Travel Expense (Mileage) Reimbursement

An audit of travel expense mileage reimbursement was completed (audit report issued May 2024). The audit consisted of a review of documented policies and procedures related to reimbursable travel expenses, the controls and procedures related to reviewing and approving allowable travel expenses, the relevant IRS mileage rate used, whether sufficient evidence and documentation were provided to support mileage reimbursement, record retention related to travel expenses and whether there was any evidence of fraud, waste or abuse where an employee submitted an unusual or unreasonable amount of travel expense for reimbursement.

Internal Audit issued one recommendation related to the Travel Expense Form to enhance processing efficiency and reduce the risk of error, fraud and/or abuse. This one recommendation was closed as of June 30, 2024.

MIS Asset Management

An audit of MIS asset management was completed (audit report issued June 2024). The audit consisted of a review of documented MIS asset management policies and procedures, physical inventory procedures related to the existence of MIS assets, completeness and accuracy of MIS assets deployed to employees and collected from terminated employees, controls and procedures related to locked and secured cages, closets, and cabinets used to store MIS assets.

Internal Audit issued seven recommendations related to enhancing documented policies and procedures, reconciling deployed, returned, and department managed MIS assets to the Maximo database. Controls and procedures related to visitor logs for employee restricted areas were re-established. Action plans are in place to close all recommendations in the near term.

Lease Agreements

Internal Audit periodically performs a review of MWRA leased properties including the now expired Charlestown Navy Yard (CNY) and Chelsea facility leases. The objective of these reviews is to determine whether real estate escrows are sufficiently funded to meet future payment obligations, as well as the supportability of applicable operating expenses.

Internal Audit completed a review of the CNY lease for CY2023 operating expenses and FY2024 real estate tax true up, and determined $7,026 was due to the landlord as a result of higher than expected operating costs and real estate tax increase.

A review of the Chelsea lease is nearing completion.

Other Management Advisory Services

Annually, Internal Audit provides management advisory services that include calculating MWRA's fringe and indirect cost rates, and providing support and review services to the Fore River Railroad Corporation (FRRC). Internal Audit supported the selection committee process to award Contract S592, Operations and Maintenance of the Fore River Pelletizing Plant. Internal Audit supports MWRA's policies and procedures and signature authority forms as needed. In addition, Internal Audit provided support to certain internal controls and workflows related to the Lawson upgrade.

In FY2024, the annual savings resulting from internal audits and management advisory services totaled $240,082.

Policies and Procedures

Policies and procedures provide consistent and clear statements of MWRA's standards to assist employees in the day-to-day management of the Authority's business and operations. Policy and procedure numbers that begin with ADM (Administrative), FIN (Finance), HR (Human Resources) and OP (Operations) are accessible on the MWRA's intranet site, Pipeline. Internal Audit is the official custodian of the policies; it does not develop or approve policies, but reviews all policies prior to final approval.

During FY2024, Internal Audit supported a process to create five new policies:

- ADM.34 MWRA Information Security Policy Asset Management
- ADM.40 MWRA Physical Security Policy Visitor Management Policy
- ADM.41 MWRA Information Security Policy Human Resources Policy
- ADM.42 MWRA Security Policy Contractor Access Policy
- HR.29 Employee Use of Electric Vehicle Chargers at MWRA Facilities for Personal Use (nearing completion)

Internal Audit also supported a process to update two existing policies:

- ADM.31 Information Security Policy
- ADM.11 Fleet Services Management and Maintenance

A couple of other policies are in various stages of being updated.

Contract Audits and Related Reviews

In FY2024, savings of $2,710,771 were recognized from the following contract audits and other related reviews.

Consultant Incurred Cost Audits

An incurred cost audit determines if billed labor costs are supported by the consultant's time reports and project cost records, other direct costs are supported by valid payments, final indirect costs have been calculated in accordance with the contract, and if final indirect cost rates have been properly applied to labor billings. The extent of fieldwork required to complete an assignment is based on a risk assessment that starts with an invoice analysis and a review of the consultant's annual Consultant Disclosure Statement submittal. Internal Audit has historically conducted the fieldwork at the consultant's office, but as a result of the pandemic, has built a remote, paperless workflow to obtain the information necessary to perform the audit procedures to verify if costs billed are supported.

In FY2024, five incurred cost audits were completed with a total contract value of $7.1 million. These were comprised of Weston & Sampson, NV5, RJN, Keville, and Brown & Caldwell. A total of $5,010 was recovered.

Consultant Preliminary Reviews

When a new contract is awarded for more than $1 million, Internal Audit performs a consultant preliminary review to determine if the proposed direct labor, indirect costs, other direct costs or multipliers/comprehensive hourly rates are supportable. Internal Audit then notifies Procurement and the Project Manager of any issues, including any unsupported proposed costs that might be available for re-allocation to another cost element.

In FY2024, five consultant preliminary reviews were completed with a total value of $29.7 million. All proposed costs were properly supported.

Consultant Disclosure Statements/Annual Indirect Cost Rate Reviews

Each professional service consultant is required to submit a Consultant Disclosure Statement annually, including an indirect cost rate for the firm's recently completed fiscal year. Internal Audit reviews and approves provisional indirect cost rates proposed by consultants for billing both new and active contracts. The approved provisional indirect cost rates are reported to Project Managers and Procurement as a reference source for reviewing invoices, and pricing contracts and amendments. During FY2024, 57 annual indirect cost rate reviews were completed and letters sent to consultants.

Construction Labor Burden Rate Reviews

A construction labor burden rate review establishes provisional labor burden rates to be used in the pricing of future change orders. Typical adjustments to contractor proposed rates include applying effective versus statutory Federal and State unemployment tax rates, applying appropriate experience modifications and other adjustments to workers compensation rates, and determining the basis for general liability and umbrella insurances and bond premium.

In FY2024, nine construction labor burden rate reviews were completed for contracts with a total value of $349.2 million. An estimated $2.3 million in cost savings may be achieved on future change orders.

Harbor Electric Energy Company (HEEC) Cross-Harbor Cable

2023 O&M True-Up and Billings: Internal Audit reviewed the annual payment to HEEC for the use of the cross-harbor cable. The review included verifying the capacity charge calculation and operations and maintenance (O&M) charges billed by HEEC under the terms of the Massachusetts Department of Public Utility (DPU) tariff for CY2023. The DPU tariff is based on a capacity charge calculation that includes O&M charges for labor and materials needed to maintain the cable, and insurance for the cable. Internal Audit reviewed the O&M charges and the tariff computation prior to HEEC's filing with DPU, which DPU approved. The CY2023 true-up was $1.1 million due to a sharp increase in interest rates used to determine the annual return on investment related to the payback of the new cable.

Project Costs: During construction of the new cross-harbor cable, Internal Audit periodically reviewed and audited the costs incurred on the project. There were no additional costs incurred in FY24.

MWRA is permitted to pay one-half of the total costs of the project prior to completion, with the balance of such costs paid over a 30-year period pursuant to the final terms of a DPU tariff. Under a Memorandum of Understanding and subsequent agreement with HEEC, the Authority has paid $59.2 million as of December 31, 2023. These payments reduce the return on equity, resulting in significant future cost savings over the pay-back period. The realized cost savings in FY2024 was $292,902.

ATTACHMENT:
Status of Internal Audit Assignments FY2024 and FY2025

Attachment 1

Status of Internal Audit Assignments FY24 and FY25

COMPLETED	Date	IN PROCESS & PLANNED TO START IN FY25
Internal Audit/Management Advisory Services		
Accounts Payable Process	Mar-24	Community Support Program (Water/Sewer Financial Assistance)
MWRA Payroll	Mar-24	Telework Compliance analysis
Travel Expense (Mileage) Reimbursement	May-24	Confined Space Entry Compliance
MIS Asset Management	Jun-24	MIS Software License Management
MWRA Overhead Rate (FY24)	Aug-23	MWRA Overhead Rate (FY25)
Reviews of Agreements and Contracts		
HEEC Cable costs (monitor finalization)		HEEC Cable costs (monitor finalization)
HEEC O&M 2023	May-24	HEEC O&M 2024
CNY Lease CY2023	Jun-24	Other facility leases
		NEFCo Financial Review
Consultant Incurred Cost Audits		
Brown & Caldwell	Apr-24	AECOM
Keville	Oct-23	Arcadis
NV5	Aug-23	Aztec Technologies
RJN Group	Aug-23	CDM Smith
Weston & Sampson	Jul-23	Green International Affiliates
		Kleinfelder
		Stantec
		Black & Veatch
		SDE
		Corrosion Probe
		Jacobs Engineering Group
		PMA Consultants
		Aldea Services
		SAR Engineering
		GEI Consultants
Consultant Preliminary Reviews (Over $1 mill)		
Digester & Storage Tank Rehab (7052) $10M	Feb-24	As Needed Design (8018, 7981 & 7982) $2.4M each
Geotechnical Support Services (7557) $13.5M	Jul-23	Digester Gas Flare No. 4 - Des/ESDC (6728) $1.2M
Sect 24 & 25 REI Only (7680) $4.3M	Nov-23	CHP Des/ESDC/REI (6730) $16.5M
CWTP Technical Assistance (7973 & 7974) $1.2M each	Sep-23	Comm Unmetered Flows Eval (6928) $2.7M
As Needed Design (7990 & 7991) $2M each	Sep-23	DI Odor Control Rehab (7088) $14M
		Deer Island HVAC Design ESDC (7110) $4.5M
		Section 22 - Design/ESDC (7120) $3.1M
		Deer Island Dystor Membrane Repl. (7135) $8M
		Centrifuge Replac Des/ESDC/REI (7137) $5.2M
		DI Cryogenics Replacement (7139) $6.3M
		Residuals Facility Upgrades Design (7145) $4M
		Future Renewable Energy Projects (7270) $10M
		NIH Storage - Design (7311) $6.9M
		Cottage Farm PCB Abatement - Design/CA (7392) $2.7M
		Clarifier Rehabilitation Phase 2 REI (7397) $7.3M
		CB1 Sect 23, 24, 25, 26 Des/ESDC (7410) $2M
		Fire System Replacement REI (7426) $4.8M
		Metro Tunnel Redundancy Final Des/ESDC (7556) $117.8M
		DI Hydro Turbine Replacement Des/ESDC/REI (7570) $2.3M
		Cathodic Protection Shafts E, L, N&W REI (7610) $1M
		Hayes Pump St Rehab REI (7668) $1.1M
		Steel Tanks Impr REI (7676) $1.1M
		Somerville Marginal CSO Facility Rehab (7689) $3M
		Beacon St Line Des/ESDC (7729) $4.9M
		Intercept Renewal 7 REI (7751) $1.3M
		CWTP UV Rooms Dehumidification (7790) $1.6M
		Hingham Pump Station Rehab Des (7827) $2.9M
		Belle Isle Rehab Des/ESDC/REI (7989) $2.5M
		Siphon Structure Phase 1 REI (7996) $1M
		REI CP-2 (8004) $1.5M
		Heat Pumps WLGH/N.Nep/Newt PS (8061) $1.1M
		As Needed Des Contract 22 (8062) $2.5M
		As Needed Des Contract 23 (8063) $2.5M
		Sect 75 Ext REI CP-1 (8067) $2M

		Attachment 1
Status of Internal Audit Assignments FY24 and FY25		
COMPLETED	**Date**	**IN PROCESS & PLANNED TO START IN FY25**
Consultant Preliminary Reviews (Over $1 mill) - Continued		
		New Salem Building Design (8073) $2.1M
		Shaft L Interconnect Des/ESDC (8080) $1.1M
		Prision Point Repack Des/CA/RI (8106) $2.3M
		Technical Assistance 15 (8130) $2.5M
		Technical Assistance 16 (8131) $2.5M
Construction Labor Burden Rate Reviews (Over $1 mill)		
Clarifier Rehab Phase 2 CA (7395) $180M	Mar-24	Deer Island Roofing Replacement (7734) $9M (Greenwood Industries)
Deer Island Roofing Replacement (7734) $9M (CAM HVAC)	May-24	CP3 Shaft 5 (7671) $4.9M
Fuel Oil Tank Replacement Ph 2 (7555) $1.5M	Aug-23	Siphon Structure Rehab Construction (6225) $8.3M
Wachusett Lower Gatehouse Pipe & Boiler Replace Constr. (7380) $5.1M	Mar-24	Cath Pro Shafts E,L,N&W Const (6439) $5.1M
B/W Improvementts Construction (7366) $13.5M	Sep-23	WASM 3 Rehab C-2 (6543) $13.9M
CHE008 Pipe Replacement (7915) $1.4M	Aug-23	Chemical Pipe Replacement - Construction (6852) $9M
Sect 25 & 24 Const CP-2 (6956) $14.2M	Oct-23	Deer Island Fire Alarm System Repl-Constr (7051) $35M
Prison Point CSO Improvements Discharge Header Rehab (8013) $2.5M	Mar-24	DI Gas Protection System Ph 2 (7169) $6.5M
		Inter Ren 7-Malden & Melrose Constr (7217) $9.4M
		Future Renewable Energy Projects (7270) $10M
		Quinapoxet Dam Removal - Construction (7348) $2M
		Hayes Pump Station Rehab Const (7375) $22.7M
		Deer Island MCC & Switch Gear (7420) $23.5M
		Section 75 Extension - Constr CP-1 (7484) $16.9M
		Section 56 Replacement - Construction (7486) $6.7M
		Steel Tank/Impr Constr (7493) $9.8M
		Maint Gar/Wash Bay/Stor Bldg Const (7577) $5.4M
		Screw Pump Replac Ph 2 Const (7591) $4.5M
		Fuel Oil Tank Repl Constr Ph 3 (7637) $4M
		Digester Cover Replacement (7648) $5.8M
		Bellevue 1 & Arlington Heights Masonry (7694) $10M
		CP-2 NEH Improvements (7725) $21M
		Steel Tank Improv Constr Ph2 (7727) $7.1M
		Roof Gillis/Bratt/Newt Const (7901) $1.5M
		Somm Marginal New Pipe Connect (7985) $4.6M
		Sudbury Reservoir Dam Spillway & Gatehouse Vent Repair (7615A) $2M

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: November 13, 2024
SUBJECT: FY25 Financial Update and Summary through October 2024

COMMITTEE: Administration, Finance & Audit

_X_ INFORMATION
___ VOTE

Michael J. Cole, Budget Director
James J. Coyne, Budget Manager
Preparer/Title

Thomas J. Durkin
Director, Finance

RECOMMENDATION:

For information only. This staff summary provides the financial results and variance highlights for Fiscal Year 2025 through October 2024, comparing actual spending to the budget.

DISCUSSION:

The total Year-to-Date variance for the FY25 CEB is $11.0 million, due to lower direct expenses of 8.0% or $8.0 million, indirect expenses of 1.3% or $0.4 million, and debt service costs of 0.7% or $1.1 million, and higher revenue of $1.5 million.

FY25 Current Expense Budget

The CEB expense variances through October 2024 by major budget category were:

- Lower Direct Expenses of $8.0 million or 8.0% under budget. Spending was lower for Wages & Salaries, Professional Services, Fringe Benefits, Other Services, Utilities, Chemicals, Overtime, and Training & Meetings. Spending was higher than budget for Maintenance, Other Materials, and Workers' Compensation.

- Lower Indirect Expenses of $0.4 million or 1.3% under budget due primarily to lower Watershed reimbursements.

- Debt Service expenses were $1.1 million or 0.7% under budget driven by lower than budgeted variable interest expense.

- Revenue was $1.5 million or 0.5% over the estimate driven by Investment Income of $1.0 million due to higher than budgeted interest rates.

FY25 Budget and FY25 Actual Variance by Expenditure Category
(In millions)

	FY25 Budget	FY25 Actual	$ Variance	% Variance
Direct Expenses	$100.9	$92.9	-$8.0	-8.0%
Indirect Expenses	$33.0	$32.6	-$0.4	-1.3%
Capital Financing	$146.3	$145.2	-$1.1	-0.7%
Total	**$280.2**	**$270.6**	**-$9.6**	**-3.4%**

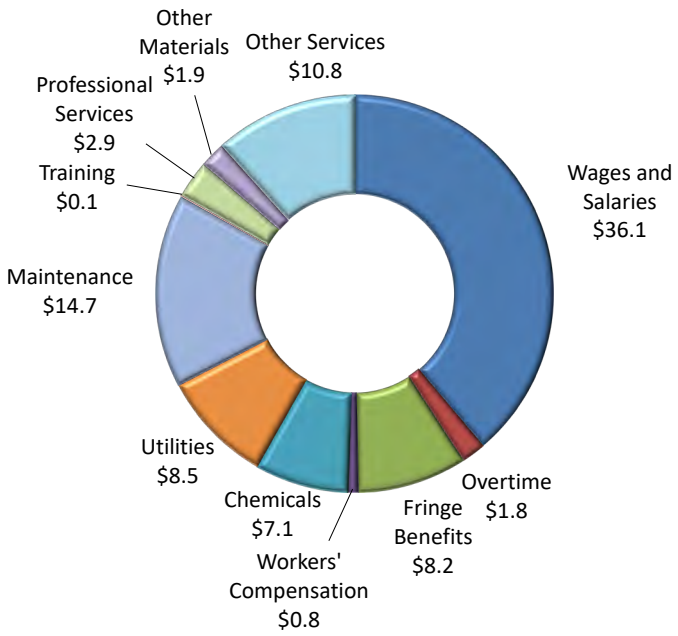
Totals may not add due to rounding

Please refer to Attachment 1 for a more detailed comparison by line item of the budget variances for FY25.

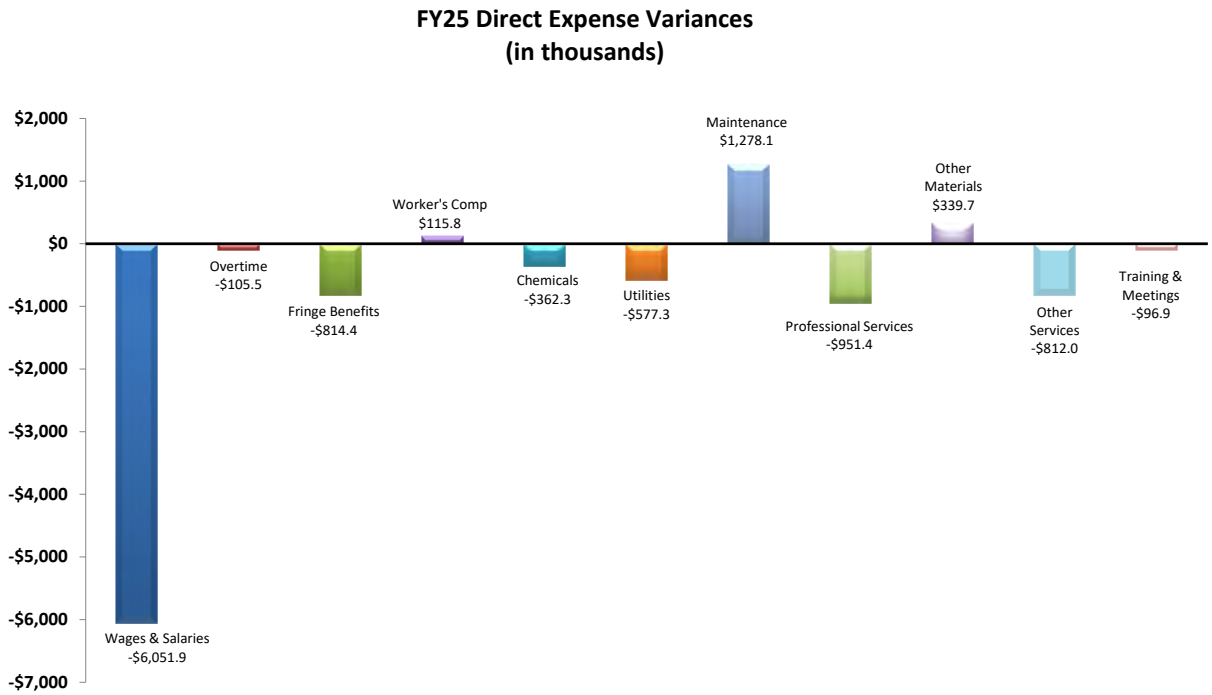
Direct Expenses

FY25 direct expenses through October totaled $92.9 million, which was $8.0 million or 8.0% less than budgeted.

FY25 Direct Expenses
(in millions)

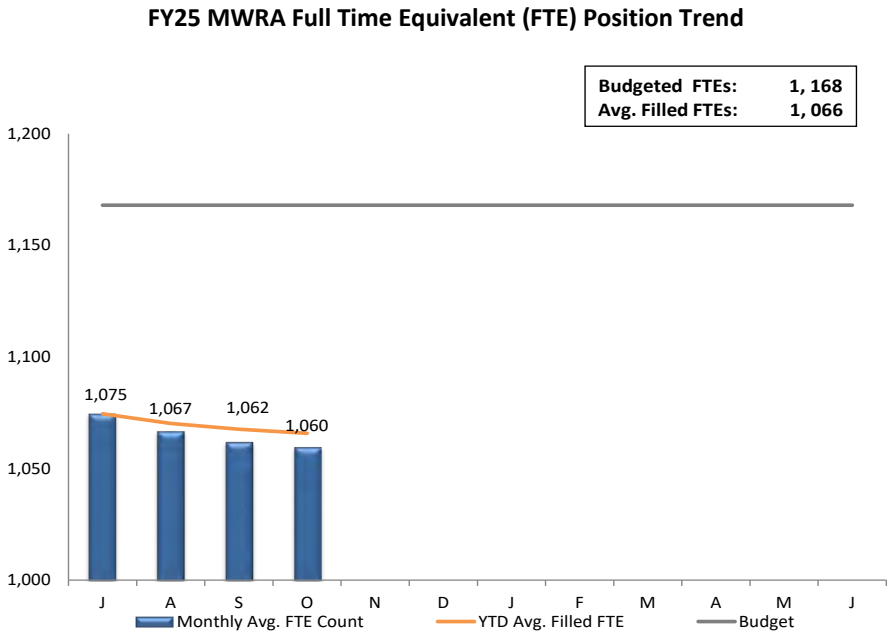


Spending was lower than budget for Wages & Salaries, Professional Services, Fringe Benefits, Other Services, Utilities, Chemicals, Overtime, and Training & Meetings. These were partially offset by higher than budgeted spending for Maintenance, Other Materials, and Workers' Compensation.



Wages and Salaries

Wages and Salaries was under budget by $6.0 million or 14.4%. Through October, there were 102 fewer average FTEs (1,066 versus 1,168 budget) or 8.7% and lower average salaries for new hires versus retirees. The timing of backfilling vacant positions also contributed to Regular Pay being under budget.



Maintenance

Maintenance was greater than budget by $1.3 million or 9.5%. Maintenance Services were greater than budget by $1.8 million driven by higher Plant & Machinery Services of $2.4 million due to greater than anticipated work performed for annual boiler maintenance and timing of hydro wicket gate replacement project for the Deer Island Treatment Plant (DITP) Thermal Plant, Hydro Power and Wind Turbine maintenance contract, the Norumbega Covered Storage tank cleaning and Deer Island Treatment Plant centrifuge maintenance contracts. This was partially offset by lower Computer Software Licenses of $248,000, Building & Grounds Services of $169,000 and Computer Services of $152,000 all due to less than anticipated spending through October. Maintenance Materials were lower than budget by $541,000 driven by Special Equipment Materials of $522,000 due to later than expected spending on hatch covers at Loring Road Covered Storage and HVAC Materials of $247,000 due to less than anticipated purchases through October. These are partially offset by higher Warehouse Inventory of $178,000 due to the need for spare parts and purchase of materials early due to long lead times, and Electrical Materials of $135,000 due to greater than anticipated purchases through October.

Professional Services

Professional Services were less than budget by $951,000 or 25.0% driven by lower Other Services of $475,000 due to later than anticipated services which includes the Disparity Study, Computer Systems Consultant of $226,000 and Lab & Testing Analysis of $140,000, both due to less than anticipated spending through October.

Fringe Benefits

Fringe Benefits spending was lower than budget by $814,000 or 9.0%. This is primarily driven by lower Health Insurance costs of $774,000, due to fewer than budgeted participants in health insurance plans, increased contribution by external new hires vs. lower contribution rates of staff retiring, and the shift from family to individual plans which are less expensive.

Other Services

Other Services were lower than budget by $812,000 or 7.0% driven by Sludge Pelletization of $336,000 and Grit & Screenings Removal of $225,000 both primarily due to lower quantities, and lower than anticipated Telecommunications costs of $162,000.

Utilities

Utilities were lower than budget by $577,000 or 6.4%. Lower than budgeted spending for Electricity of $687,000 primarily at Deer Island Treatment Plant (DITP) of $508,000 was driven primarily by lower pricing from Eversource. Electricity in Field Operations was less than budget by $231,000 primarily due to lower demand as a result of fewer wet weather events, resulting in less pumping.

Chemicals

Chemicals were lower than budget by $362,000 or 4.9%. Lower than budgeted spending on Sodium Hypochlorite of $284,000 million was driven by DITP of $203,000 due to below average plant flows. Lower Liquid Oxygen of $143,000 is due to lower dosing at the John Carroll Water Treatment Plant (JCWTP). Lower Sodium Bisulfite of $123,000 was primarily driven by Wastewater Operations of $56,000 due to lower dose and volume as a result of less than anticipated CSO activations, and lower volume at DITP of $53,000 due to lower quantities to dechlorinate the effluent. Higher Hydrogen Peroxide of $303,000 to reduce elevated H2S levels for odor pretreatment and corrosion control and allows staff to perform maintenance activities more safely within the tanks. Higher Ferric Chloride of $103,000 was to keep the orthophosphate levels within the target levels. DITP flows are 20.3% less than planned and the JCWTP flows are 0.5% greater than planned through October. It is important to note that Chemical variances are also based on deliveries which in general reflect the usage patterns. However, the timing of deliveries is an important factor.

Other Materials

Other Materials were greater than budget by $340,000 or 21.7% driven by Computer Hardware of $332,000 primarily due to earlier than anticipated purchasing of materials through October which include switches at DITP, storage replacements, and the JCWTP audiovisual upgrades. In addition, higher spending on Equipment/Furniture of $91,000 was due to greater than anticipated lab equipment purchases through October. These were partially offset by lower Other Materials of $122,000 and Vehicle Expense of $107,000 due to less than anticipated spending through October.

Worker's Compensation

Worker's Compensation expenses were greater than budget by $116,000 or 16.8%. The variance is due to higher than budgeted expenses for Medical Payments of $53,000, Administrative Expenses of $41,000, and Compensation Payments of $22,000. Due to uncertainties of when spending will happen, the budget was spread evenly throughout the year.

Overtime

Overtime expenses were lower than budget by $106,000 or 5.4%. Lower than budgeted spending for the Field Operations Department (FOD) of $53,000 is primarily due to less emergency and planned overtime due to vacancies and less rain events, and Engineering & Construction of $22,000 due to less than anticipated needs through October. These were partially offset by higher spending at DITP of $27,000 due to shift coverage due to vacancies. Year-to-date rainfall was a major contributor for the less than anticipated overtime.

Training & Meetings

Training & Meetings was lower than budget by $97,000 or 44.7% primarily due to less than anticipated spending on meetings and conferences through October.

Indirect Expenses

Indirect Expenses totaled $32.6 million, which is $431,000 or 1.3% lower than budget. The variance is driven by lower Watershed reimbursements.

Based on FY25 operating activity only, the Watershed Division is $372,000 or 5.6% under budget. Lower spending on Wages and Salaries, Maintenance, and Fringe Benefits is driving the variance. When factoring in the FY24 balance forward of $156,000 which was paid during Q1 of FY25, Watershed Reimbursement is $528,000 or 8.0% below budget through October 2024.

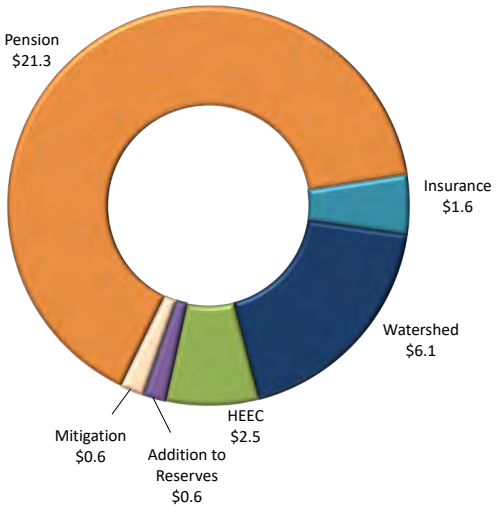
FY25 Watershed Protection Variance

$ in millions	YTD Budget	YTD Actual	YTD $ Variance	YTD % Variance
Operating Expenses	7.2	6.5	-0.6	-8.8%
Operating Revenues - Offset	0.6	0.3	-0.3	-45.9%
FY25 Operating Totals	**6.6**	**6.2**	**-0.4**	**-5.6%**
DCR Balance Forward (FY24 year-end accrual true-up)	0.0	-0.2	-0.2	
FY25 Adjusted Operating Totals	**6.6**	**6.1**	**-0.5**	**-8.0%**
PILOT	0.0	0.0	0.0	0.0%
Total Watershed Reimbursement	**6.6**	**6.1**	**-0.5**	**-8.0%**

Totals may not add due to rounding

MWRA reimburses the Commonwealth of Massachusetts Department of Conservation (DCR) and Recreation - Division of Water Supply Protection – Office of Watershed Management for expenses. The reimbursements are presented for payment monthly in arears. Accruals are being made monthly based on estimated expenses provided by DCR and trued-up monthly based on the monthly invoice. MWRA's budget is based on the annual Fiscal Year Work Plan approved by the Massachusetts Water Supply Protection Trust. The FTE count at the end of September was 149 (148.7 on a year-to-date basis) vs. a budget of 151.

FY25 Indirect Expenses
(in millions)

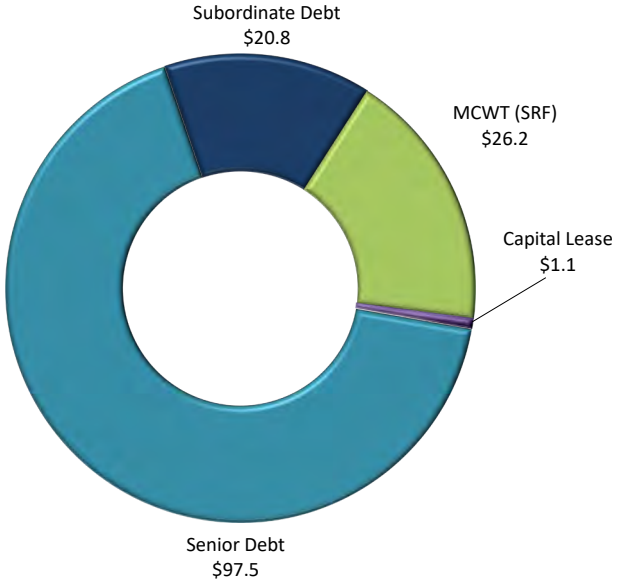


Capital Financing

Capital Financing expenses include the principal and interest payments for fixed senior debt, the variable subordinate debt, the Massachusetts Clean Water Trust (SRF) obligation, the commercial paper program for the local water pipeline projects, current revenue for capital, Optional Debt Prepayment, and the Chelsea Facility lease payment.

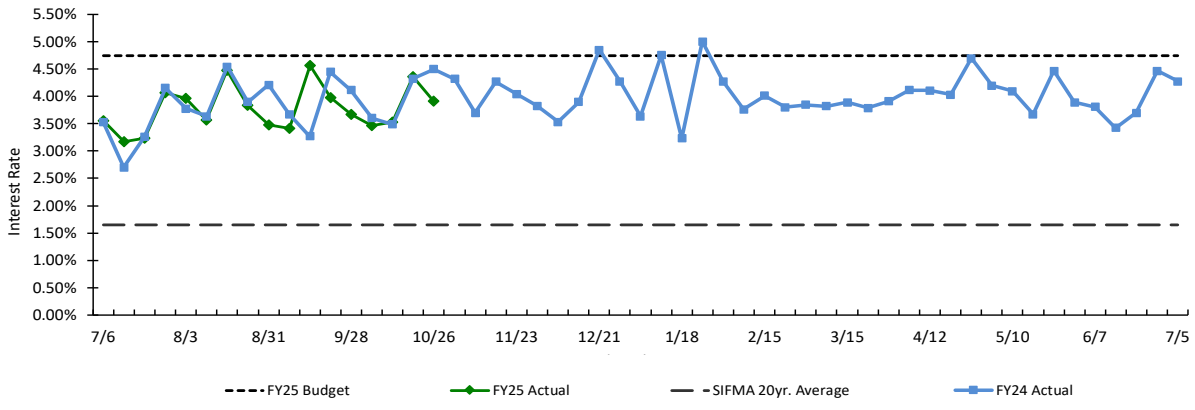
Capital Financing expenses for FY25 through October totaled $145.2 million, which is $1.1 million or 0.7% less than budget. This favorable variance is the result of lower than budgeted variable interest rates.

FY25 Capital Finance
($ in millions)



The graph below reflects the FY25 actual variable rate trend by week against the FY25 Budget.

Weekly Average Interest Rate on MWRA Variable Rate Debt
(Includes liquidity support and remarketing fees)



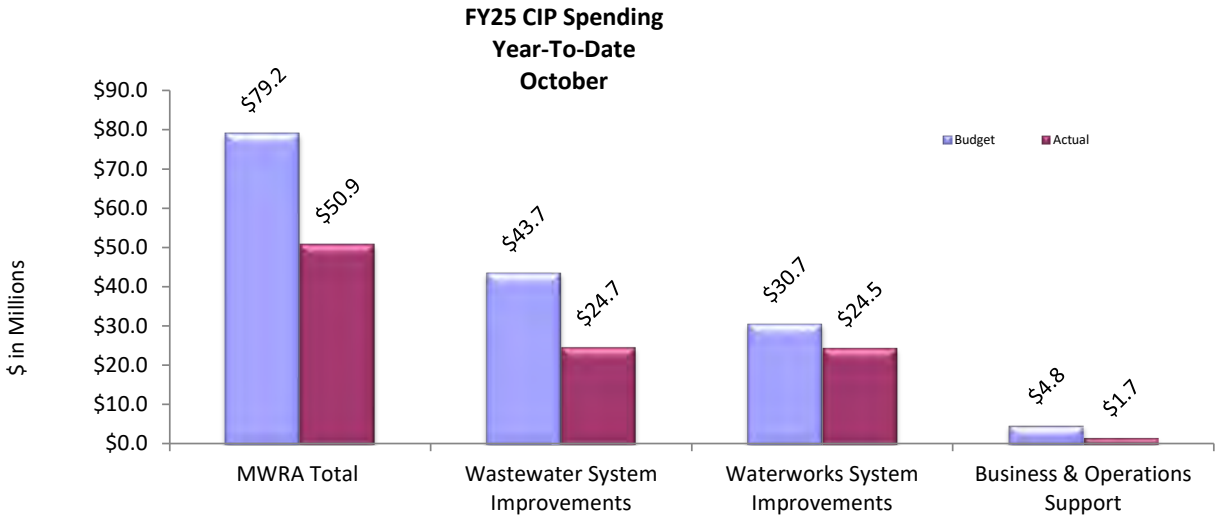
Revenue & Income

Revenues of $295.3 million were $1.5 million or 0.5% over the estimate driven by Investment Income which was $1.0 million or 12.5% over the estimate due to higher than assumed interest rates.

FY25 Capital Improvement Program

Capital expenditures in Fiscal Year 2025 through October total $50.9 million, $28.3 million or 35.7% under planned spending.

After accounting for programs which are not directly under MWRA's control, most notably the Inflow and Infiltration (I/I) grant/loan program, the Local Water System Assistance loan program, and the community managed Combined Sewer Overflow (CSOs) projects, capital spending totaled $47.2 million, $14.0 million or 22.9% under planned spending.



Overall, CIP spending reflects the underspending in Wastewater Improvements ($19.0 million), Waterworks ($6.2 million) and Business and Operations Support ($3.1 million). Major variances in Wastewater are primarily due to less than anticipated requests for community grants and loans for the I/I Local Financial Assistance Program, equipment scheduled for FY25 received in FY24 for Deer Island Treatment Plant (DITP) Clarifier Rehab Phase 2, work delayed due to contractor in process of submitting dive and safety plan for West Roxbury Tunnel Inspection, lower than projected task order work for DITP As-Needed Design contracts, contractor behind original schedule due to delays with getting materials on a timely basis for DITP Roofing Replacement and planned FY25 work completed in FY24 for Nut Island Odor Control and HVAC Improvements. This was partially offset by greater than anticipated consultant progress for the Digester & Storage Tank Rehabilitation Design/ESDC, and work scheduled for FY24 performed in FY25 for Clinton Screw Pumps Replacement Phase 1 Construction.

Waterworks variances are primarily due to longer lead time on some larger items and a change in design for the multi-orifice valve for Wachusett Lower Gatehouse Pipe & Boiler Replacement Construction, less than anticipated Metro Water Tunnel Program administration, legal and public acquisition costs, change in Notice-to-Proceed as contract was not awarded until September 11, 2024 for Metro Water Tunnel Program Final Design/ESDC, less than planned consultant work for WASM 3 MEPA/Design/CA/RI, less than anticipated services for Metro Water Tunnel Program Support Services, and less than planned land purchases for Watershed Land. This was offset by greater than planned contractor progress for Waltham Water Pipeline Construction, work scheduled for FY24 including final paving performed in FY25 for NEH Improvements CP-1 and New Connecting Mains CP3-Sections 23, 24 & 47 Rehabilitation, greater than anticipated requests for community loans for the Water Loan Program.

$ in Millions	Budget	Actuals	$ Var.	% Var.
Wastewater System Improvements				
Interception & Pumping	4.6	2.6	(2.0)	-44.1%
Treatment	20.7	18.0	(2.8)	-13.3%
Residuals	0.0	0.0	0.0	0.0%
CSO	2.5	0.6	(1.9)	-77.3%
Other	15.8	3.6	(12.3)	-77.4%
Total Wastewater System Improvements	**$43.7**	**$24.7**	**($19.0)**	**-43.4%**
Waterworks System Improvements				
Drinking Water Quality Improvements	1.7	1.6	(0.1)	-7.1%
Transmission	18.4	13.9	(4.6)	-24.7%
Distribution & Pumping	9.4	7.6	(1.8)	-19.5%
Other	1.1	1.4	0.3	25.7%
Total Waterworks System Improvements	**$30.7**	**$24.5**	**($6.2)**	**-20.2%**
Business & Operations Support	**$4.8**	**$1.7**	**($3.1)**	**-65.1%**
Total MWRA	**$79.2**	**$50.9**	**($28.3)**	**-35.7%**

FY25 Spending by Program:

The main reasons for the project spending variances in order of magnitude are:

Other Wastewater: Less than planned spending of $12.3 million

- $12.3 million for Community I/I due to less than anticipated requests for community grants and loans.

Waterworks Transmission: Less than planned spending of $4.6 million

- $2.7 million for Wachusett Lower Gatehouse Pipe & Boiler Replacement Construction due to longer lead-time on some larger items and a change in design for the multi-orifice valve.
- $1.3 million for Metro Water Tunnel Program Administration, Legal & Public Outreach due to less than anticipated costs.
- $1.1 million for Final Tunnel Design/ESDC due to contract awarded later than anticipated.
- $0.7 million for WASM 3 MEPA/Design/CA/RI due to less than anticipated consultant work.
- $0.6 million for Metro Water Tunnel Program Support Services due to less than anticipated services.
- $0.3 million for Watershed Land Acquisition due to less than anticipated land purchases.

- This under planned spending was partially offset by greater than planned contractor progress of $2.9 million for Waltham Water Pipeline.

Business & Operations Support: Less than planned spending of $3.1 million
- $0.9 million for As-Needed Design Contracts due to lower than projected task order work.
- $0.6 million for Lawson Upgrade due to slower than anticipated vendor invoicing.
- $0.6 million for Security Equipment & Installation due to delays with upgrades to communication circuits and Incident Management System, and less than anticipated fencing work.
- $0.3 million for MAXIMO Interface Enhancements due to less than anticipated completion of final work.

Wastewater Treatment: Less than planned spending of $2.8 million
- $2.1 million for Clarifier Rehabilitation Phase 2 Construction due to equipment scheduled for FY25 received in FY24.
- $0.8 million for DITP As-Needed Design due to lower than projected task order work.
- This under planned spending was partially offset by greater than planned spending of $0.4 million for Digester & Storage Tank Rehabilitation Design/ESDC due to consultant progress greater than anticipated, and $0.2 million for Clinton Wastewater Treatment Plant Screw Pump Replacement due to work scheduled for FY24 performed in FY25.

Interception & Pumping: Less than planned spending of $2.0 million
- $0.8 million for West Roxbury Tunnel Inspection due to work delayed due to contractor in process of submitting dive and safety plan.
- $0.4 million for Nut Island Odor Control & HVAC Improvements Design/CA/REI & Construction Phase 2 due to work scheduled for FY25 performed in FY24.

Combined Sewer Overflow: Less than planned spending of $1.9 million
- $2.1 million for Fort Point Channel & Mystic due to the timing of Community Managed CSO payments.

Water Distribution and Pumping: Less than planned spending of $1.8 million
- $1.1 million for Section 89/29 Replacement Construction due to less than planned contractor progress
- $0.5 million for Section 75 Extension - CP-1 Construction due to schedule change.
- $0.5 million for Northern Extra High Service (NEH) - New Pipelines Legal due to less than planned legal/easement expenses.
- $0.3 million for Section 56 Replacement/Saugus River - Design/CA due to a change in Construction schedule affecting Construction Administration services schedule.
- This under planned spending was partially offset by $1.1 million for CP-1 NEH Improvements and $0.6 million for New Connecting Mains CP3-Sections 23, 24 & 47 Rehabilitation due to work scheduled for FY24 including paving performed in FY25.

Other Waterworks: Greater than planned spending of $0.3 million
- $0.4 million for Local Financial Assistance due to greater than anticipated requests for community loans.

Drinking Water Quality Improvements: Less than planned spending of $0.1 million

- $0.6 million for the John Carroll Water Treatment Plant (JCWTP) Technical Assistance due to lower than projected task order work, partially offset by $0.5 million for JCWTP Parapet Wall Repairs due to contractor progress greater than planned.

Construction Fund Balance

The construction fund balance was $123.7 million as of the end of October. Commercial Paper/Revolving Loan available capacity was $250 million.

ATTACHMENTS:

Attachment 1 – Variance Summary October 2024
Attachment 2 – Current Expense Variance Explanations
Attachment 3 – Capital Improvement Program Variance Explanations

ATTACHMENT 1
FY25 Actuals vs. FY25 Budget

	Oct 2024 Year-to-Date				
	Period 4 YTD Budget	Period 4 YTD Actual	Period 4 YTD Variance	%	FY25 Approved
EXPENSES					
WAGES AND SALARIES	$ 42,116,191	$ 36,064,319	$ (6,051,872)	-14.4%	$ 133,658,955
OVERTIME	1,949,961	1,844,428	(105,533)	-5.4%	6,133,078
FRINGE BENEFITS	9,048,734	8,234,321	(814,413)	-9.0%	27,834,124
WORKERS' COMPENSATION	691,145	806,909	115,764	16.7%	2,073,434
CHEMICALS	7,459,039	7,096,720	(362,319)	-4.9%	19,706,033
ENERGY AND UTILITIES	9,054,756	8,477,433	(577,323)	-6.4%	32,048,176
MAINTENANCE	13,388,435	14,666,554	1,278,119	9.5%	46,653,201
TRAINING AND MEETINGS	216,995	120,087	(96,908)	-44.7%	568,346
PROFESSIONAL SERVICES	3,807,400	2,856,050	(951,350)	-25.0%	11,121,730
OTHER MATERIALS	1,566,321	1,905,992	339,671	21.7%	7,270,879
OTHER SERVICES	11,596,480	10,784,461	(812,019)	-7.0%	33,945,804
TOTAL DIRECT EXPENSES	**$ 100,895,457**	**$ 92,857,274**	**$ (8,038,184)**	**-8.0%**	**$ 321,013,760**
INSURANCE	$ 1,461,688	$ 1,558,716	$ 97,028	6.6%	$ 4,471,045
WATERSHED/PILOT	6,593,215	6,065,489	(527,726)	-8.0%	32,507,642
HEEC PAYMENT	2,451,428	2,451,424	(4)	0.0%	8,185,722
MITIGATION	596,165	596,165	-	0.0%	1,823,564
ADDITIONS TO RESERVES	623,206	623,206	-	0.0%	1,906,278
RETIREMENT FUND	21,264,519	21,264,519	-	0.0%	21,264,519
POST EMPLOYEE BENEFITS	-	-	-	---	5,280,806
TOTAL INDIRECT EXPENSES	**$ 32,990,221**	**$ 32,559,519**	**$ (430,703)**	**-1.3%**	**$ 75,439,576**
STATE REVOLVING FUND	$ 26,202,983	$ 26,202,983	$ -	0.0%	$ 85,449,151
SENIOR DEBT	97,469,437	97,469,437	-	0.0%	315,206,721
DEBT SERVICE ASSISTANCE	-	-	-	---	-
CURRENT REVENUE/CAPITAL	-	-	-	---	20,200,000
SUBORDINATE MWRA DEBT	21,589,661	21,589,661	-	0.0%	64,768,074
LOCAL WATER PIPELINE CP	-	-	-	---	9,827,661
CAPITAL LEASE	1,051,731	1,051,731	-	0.0%	3,217,060
VARIABLE DEBT	-	(1,083,277)	(1,083,277)	---	-
DEFEASANCE ACCOUNT	-	-	-	---	-
DEBT PREPAYMENT	-	-	-	---	5,500,000
TOTAL CAPITAL FINANCE EXPENSE	**$ 146,313,812**	**$ 145,230,535**	**$ (1,083,277)**	**-0.7%**	**$ 504,168,667**
TOTAL EXPENSES	**$ 280,199,490**	**$ 270,647,328**	**$ (9,552,164)**	**-3.4%**	**$ 900,622,003**
REVENUE & INCOME					
RATE REVENUE	$ 279,678,769	$ 279,678,769	$ -	0.0%	$ 855,488,000
OTHER USER CHARGES	4,740,227	4,818,237	78,010	1.6%	10,668,572
OTHER REVENUE	1,004,569	1,366,691	362,122	36.0%	6,066,670
RATE STABILIZATION	-	-	-	---	-
INVESTMENT INCOME	8,378,074	9,425,259	1,047,185	12.5%	28,398,761
TOTAL REVENUE & INCOME	**$ 293,801,639**	**$ 295,288,956**	**$ 1,487,317**	**0.5%**	**$ 900,622,003**

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY25 Budget YTD October	FY25 Actuals October	FY25 Actual vs. FY25 Budget		Explanations
			$	%	
Direct Expenses					
Wages & Salaries	42,116,191	36,064,319	(6,051,872)	-14.4%	Wages and Salaries were lower than budget by $6.0 million or 14.4%. Year to date, there have been 102 fewer average FTEs (1,066 versus 1,168 budget), lower average new hire salaries versus retirees, the timing of backfilling vacant positions.
Overtime	1,949,961	1,844,428	(105,533)	-5.4%	Overtime expenses were lower than budget by $106,000 or 5.4%. Lower than budgeted spending for the Field Operations Department (FOD) of $53,000 is primarily due to less emergency and planned overtime due to vacancies and less rain events, and Engineering & Construction of $22,000 due to less than anticipated needs through October. These were partially offset by higher spending at DITP of $27,000 due to shift coverage due to vacancies. Year-to-date rainfall was a major contributor for the less than anticipated overtime.
Fringe Benefits	9,048,734	8,234,321	(814,413)	-9.0%	Fringe Benefits spending was lower than budget by $814,000 or 9.0%. This is primarily driven by lower H**ealth Insurance** costs of $774,000, due to fewer than budgeted participants in health insurance plans, increased contribution by external new hires vs. lower contribution rates of staff retiring, and the shift from family to individual plans which are less expensive.
Worker's Compensation	691,145	806,909	115,764	16.8%	Worker's Compensation expenses were greater than budget by $116,000 or 16.7%. The variances are due to higher than budgeted expenses for **Medical Payments** of $53,000, **Administrative Expenses** of $41,000**,** and **Compensation Payments** of $22,000. Due to uncertainties of when spending will happen, the budget was spread evenly throughout the year.
Chemicals	7,459,039	7,096,720	(362,319)	-4.9%	Chemicals were lower than budget by $362,000 or 4.9%. Lower than budget spending on **Sodium Hypochlorite** of $284,000 million was driven by DITP of $203,000 due to below average plant flows. Lower **Liquid Oxygen** of $143,000 due to lower dosing at Carroll Water Treatment Plant. Lower **Sodium Bisulfite** of $123,000 was primarily driven by Wastewater Operations of $56,000 due to lower dose and volume as a result of less than anticipated CSO activations, and lower volume at DITP of $53,000 due to lower quantities to dechlorinate the effluent. Higher **Hydrogen Peroxide** of $303,000 to reduce elevated H2S levels for odor pretreatment and corrosion control and allows staff to perform maintenance activities more safely within the tanks. Higher **Ferric Chloride** of $103,000 to keep the orthophosphate levels within the target levels. DITP flows are 20.3% less than the budget and the CWTP flows are 0.9% greater than the budget through October. It is important to note that Chemical variances are also based on deliveries which in general reflect the usage patterns. However, the timing of deliveries is an important factor.
Utilities	9,054,756	8,477,433	(577,323)	-6.4%	Utilities were lower than budget by $577,000 or 6.4%. Lower than budgeted spending for **Electricity** of $687,000 primarily at DITP of $508,000 was driven primarily by lower pricing by Eversource. Electricity in Field Operations was less than budget by $231,000 primarily due to lower demand as a result of fewer wet weather events, resulting in less pumping.

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY25 Budget YTD October	FY25 Actuals October	FY25 Actual vs. FY25 Budget		Explanations
			$	%	
Maintenance	13,388,435	14,666,554	1,278,119	9.5%	Maintenance was greater than budget by $1.3 million or 9.5%, largely driven by the timing of project work. *Maintenance Services* were greater than budget by $1.8 million driven by higher **Plant & Machinery Services** of $2.4 million due to greater than anticipated work performed for annual boiler maintenance and timing of hydro wicket gate replacement project for the Deer Island Treatment Plant (DITP) Thermal Plant, Hydro Power and Wind Turbine maintenance contract, the Norumbega Covered Storage tank cleaning and Deer Island Treatment Plant centrifuge maintenance contracts. This was partially offset by **Computer Software Licenses** of $248,000, **Building & Grounds Services** of $169,000 and **Computer Services** of $152,000 due to less than anticipated spending through October. *Maintenance Materials* were lower than budget by $541,000 driven by **Special Equipment Materials** of $522,000 due to the timing of purchasing hatch covers at Loring Road Covered Storage and **HVAC Materials** of $247,000 due to less than anticipated purchases through October. These are partially offset by higher **Warehouse Inventory** of $178,000 due to the need for spare parts and purchase of materials early due to long lead times, and Electrical Materials of $135,000 due to greater than anticipated purchases through October.
Training & Meetings	216,995	120,087	(96,908)	-44.7%	Training & Meetings was lower than budget by $97,000 or 44.7% primarily due to less than anticipated spending on meetings and conferences through October driven by MIS ($77,000), and Procurement ($11,000), partially offset by higher spending in Operations Administration of $13,000.
Professional Services	3,807,400	2,856,050	(951,350)	-25.0%	Professional Services were less than budget by $951,000 or 25.0% driven by lower **Other Services** of $475,000 due to later than anticipated services which includes the Disparity Study, **Computer Systems Consultant** of $226,000 and **Lab & Testing Analysis** of $140,000, both due to less than anticipated spending through October.
Other Materials	1,566,321	1,905,992	339,671	21.7%	Other Materials were greater than budget by $340,000 or 21.7% driven by **Computer Hardware** of $332,000 primarily due to earlier than anticipated purchasing of materials through October which include switches at DITP, storage replacements, and the John Carroll Water Treatment Plant (JCWTP) audiovisual upgrades. In addition, higher spending on **Equipment/Furniture** of $91,000 was due to greater than anticipated lab equipment purchases through October. These were partially offset by **Other Materials** of $122,000 and **Vehicle Expense** of $107,000 due to less than anticipated spending through October.

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY25 Budget YTD October	FY25 Actuals October	FY25 Actual vs. FY25 Budget		Explanations
			$	%	
Other Services	11,596,480	10,784,461	(812,019)	-7.0%	Other Services were lower than budget by $812,000 million or 7.0% driven by **Sludge Pelletization** of $336,000 and **Grit & Screenings Removal** of $225,000 primarily due to lower quantities, and lower than anticipated **Telecommunications** of $162,000.
Total Direct Expenses	**100,895,457**	**92,857,274**	**(8,038,183)**	**-8.0%**	
Indirect Expenses					
Insurance	1,461,688	1,558,716	97,028	6.6%	Higher premiums of $60,000 offset by lower Payments/Claims of $37,000 than budgeted.
Watershed/PILOT	6,593,215	6,065,489	(527,726)	-8.0%	Lower Watershed Reimbursement of $528,000 driven by lower spending on Wages & Salaries, Maintenance, and Fringe Benefits.
HEEC Payment	2,451,428	2,451,424	(4)	0.0%	
Mitigation	596,165	596,165	-	0.0%	
Addition to Reserves	623,206	623,206	-	0.0%	
Pension Expense	21,264,519	21,264,519	-	0.0%	
Post Employee Benefits	-	-	-		
Total Indirect Expenses	**32,990,221**	**32,559,519**	**(430,702)**	**-1.3%**	
Debt Service					
Debt Service	146,313,812	145,230,535	(1,083,277)	-0.7%	Capital Financing was $835,000 less than budget as a result of lower than anticipated interest rates.
Debt Service Assistance	-	-	-		
Total Debt Service Expenses	**146,313,812**	**145,230,535**	**(1,083,277)**	**-0.7%**	
Total Expenses	**280,199,490**	**270,647,328**	**(9,552,161)**	**-3.4%**	

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY25 Budget YTD October	FY25 Actuals October	FY25 Actual vs. FY25 Budget		Explanations
			$	%	
Revenue & Income					
Rate Revenue	279,678,769	279,678,769	-	0.0%	
Other User Charges	4,740,227	4,818,237	78,010	1.6%	Higher than estimated DI Water.
Other Revenue	1,004,569	1,366,691	362,122	36.0%	Other Revenue was $362,000 or 36.0% greater than budget due to **Miscellaneous Revenue** of $132,000, **Energy Revenue** of $110,000, **Emergency Water Supply** of $101,999 for the Town of Wayland, **Energy Rebates** of $68,000, partially offset by **Profit & Loss on Disposal of Equipment** of $100,000.
Rate Stabilization	-	-	-		
Investment Income	8,378,074	9,425,259	1,047,185	12.5%	Investment Income is over budget due to higher than budgeted interest rates and higher average balances.
Total Revenue	**293,801,639**	**295,288,956**	**1,487,317**	**0.5%**	
Net Revenue in Excess of Expenses	**13,602,149**	**24,641,628**	**11,039,478**		

ATTACHMENT 3
FY25 CIP Variance Report ($000s)

	FY25 Budget October	FY25 Actuals October	Actuals vs. Budget		Explanations
			$	%	
Wastewater					
Interception & Pumping (I&P)	$4,620	$2,582	($2,037)	-44.1%	Less than planned spending West Roxbury Tunnel Inspection: $800k (work delayed due to contractor in process of submitting dive and safety plan) Nut Island Odor Control & HVAC Improvements - Design/CA/REI & Construction Phase 2: $397k (work scheduled for FY25 performed in FY24)
Treatment	$20,740	$17,973	($2,767)	-13.3%	Less than planned spending Clarifier Rehabilitation Phase 2 Construction: $2.1M (equipment scheduled for FY25 received in FY24) DITP As-Needed Design: $753k (lower than projected task order work) DITP Roofing Replacement: $418k (Contractor is behind original schedule due to delays with getting materials on a timely basis) Greater than planned spending Digester & Storage Tank Rehabilitation - Design/ESDC: $417k (consultant progress greater than anticipated) Clinton Wastewater Treatment Plant Screw Pump Replacement: $200k (work scheduled for FY24 performed in FY25)
Residuals	$0	$0	$0	0.0%	
CSO	$2,462	$560	($1,902)	-77.3%	Less than planned spending Fort Point Channel & Mystic: $2.1M (timing of Community Managed CSO payments) Greater than planned spending CSO Performance Assessment: $308k (consultant progress greater than originally planned)
Other Wastewater	$15,846	$3,587	($12,259)	-77.4%	Less than planned spending I/I Local Financial Assistance: $12.3M (less than anticipated requests for community grants and loans)
Total Wastewater	**$43,667**	**$24,701**	**($18,966)**	**-43.4%**	

ATTACHMENT 3
FY25 CIP Variance Report ($000s)

	FY25 Budget October	FY25 Actuals October	Actuals vs. Budget		Explanations
			$	%	
Waterworks					
Drinking Water Quality Improvements	$1,722	$1,599	($122)	-7.1%	Less than planned spending CWTP Technical Assistance: $641k (lower than projected task order work) Greater than planned spending CWTP Parapet Wall Repairs: $537k (contractor progress greater than planned)
Transmission	$18,425	$13,871	($4,554)	-24.7%	Less than planned spending Wachusett Lower Gatehouse Pipe & Boiler Replacement Construction: $2.7M (longer lead time on some larger items and a change in design for the multi-orifice valve) Administration, Legal & Public Outreach: $1.3M (less than anticipated administration, legal and public acquisition costs) Metropolitan Water Tunnel Program Final Design/ESDC: $1.1M (change in Notice-to-Proceed as contract was not awarded until October 23, 2024 Board meeting) WASM 3 - MEPA/Design/CA/RI: $662k (less than planned consultant work) Program Support Services: $579k (less than anticipated services) Watershed Land Acquisition: $250k (less than planned land purchases) Greater than planned spending Waltham Water Pipeline Construction: $2.9M (greater than planned contractor progress)
Distribution & Pumping	$9,434	$7,595	($1,839)	-19.5%	Less than planned spending Section 89/29 Replacement Construction: $1.1M (less than planned contractor progress) Section 75 Extension - CP-1 Construction: $500k (schedule change) Northern Extra High Service (NEH) - New Pipelines Legal: $488k (less than planned legal/easement expenses) New Connecting Mains Sections 25 & 24 - CP-2 Construction: $403k (less than anticipated contractor progress through October) Section 56 Replacement/Saugus River - Design/CA: $326k (change in Construction schedule affects CA services schedule) Greater than planned spending NEH Improvements CP-1: $1.1M and New Connecting Mains CP3-Sections 23, 24 & 47 Rehabilitation: $567k (work scheduled for FY24 including final paving performed in FY25)

ATTACHMENT 3
FY25 CIP Variance Report ($000s)

	FY25 Budget October	FY25 Actuals October	Actuals vs. Budget		Explanations
			$	%	
Other Waterworks	$1,147	$1,442	$295	25.7%	Greater than planned spending Local Water Pipeline Financial Assistance Program: $385k (greater than anticipated requests for community loans) Less than planned spending Steel Tank Improvements: $264k (less than planned consultant progress)
Total Waterworks	**$30,728**	**$24,507**	**($6,221)**	**-20.2%**	
Business & Operations Support					
Total Business & Operations Support	**$4,798**	**$1,676**	**($3,122)**	**-65.1%**	Less than planned spending As-Needed Design Contracts: $893k (lower than projected task order work) Lawson Upgrade: $582k (slower than anticipated vendor invoicing) Security Equipment & Installation: $551k (delays with upgrades to communication circuits and Incident Management System, and less than anticipated fencing work) MAXIMO Interface Enhancements: $309k (less than anticipated completion of final work) PI Vision Process Book Replacement: $221k (schedule change)
Total MWRA	**$79,193**	**$50,885**	**($28,308)**	**-35.7%**	

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: November 13, 2024
SUBJECT: Appointment of Proxy for Fore River Railroad Corporation

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COMMITTEE: Administration, Finance & Audit

X VOTE
___ INFORMATION

Carolyn M. Francisco Murphy
General Counsel

Sean R. Cordy, Senior Financial Analyst
Matthew R. Horan, Deputy Director, Finance/Treasurer
Preparer/Title

Thomas J. Durkin
Director of Finance

RECOMMENDATION:

That the MWRA Board of Directors, as holder of all voting rights of all the issued and outstanding shares of stock of the Fore River Railroad Corporation, vote to appoint Matthew R. Horan, with the power of substitution, to vote as proxy at the next annual meeting and any special meeting of the stockholders for the Fore River Railroad Corporation in accordance with the form of proxy attached hereto and filed with the records of this meeting. In addition, the MWRA Board of Directors directs the proxy to elect the following board members:

David W. Coppes	Thomas J. Durkin	Michele S. Gillen
Frederick A. Laskey	Carolyn M. Francisco Murphy	Brian Peña
Katherine Ronan	John J. Walsh	Rebecca Weidman

DISCUSSION:

In 1987, MWRA purchased the Fore River Staging Area from General Dynamics. Included in the sale was the purchase of the Fore River Railroad Corporation (FRRC). The railroad operates during weekdays and services MWRA's Residuals Plant and Twin Rivers Technologies, Inc. Since July 2001, FRRC has leased its operating rights to Fore River Transportation Corp., a short-line railroad operator. Pursuant to the by-laws of the FRRC, an annual meeting of the shareholders must be held in the first quarter of each calendar year to elect the Board of Directors. MWRA is the sole stockholder of the FRRC.

The primary purpose of the proxy for the stockholders at the Annual Stockholders' meeting is to elect the FRRC Board of Directors as set forth on the Shareholder's Annual Meeting Agenda. Each Director's term extends until the next annual meeting. The FRRC by-laws state that the Board shall consist of a minimum of five and not more than ten members. Staff propose that the current

Board Members be reappointed to serve on the FRRC Board. The members are listed below:

David W. Coppes	Thomas J. Durkin	Michele S. Gillen
Frederick A. Laskey	Carolyn M. Francisco Murphy	Brian Peña
Katherine Ronan	John J. Walsh	Rebecca Weidman

ATTACHMENT:

Form of Proxy

FORE RIVER RAILROAD CORPORATION
PROXY

The undersigned, on behalf of MWRA's Board of Directors and duly representing the holder of all the issued and outstanding shares of stock of the Fore River Railroad Corporation hereby appoints Matthew R. Horan to vote as proxy for the undersigned at the upcoming Annual Meeting of the Stockholders and at any Special Meeting of the Stockholders of the Fore River Railroad Corporation. The proxy is instructed to vote on all business as may properly come before the stockholder's meetings and to sign any waivers of notice to be taken thereat, with all the powers the undersigned would possess if personally present. In addition, the Board of Directors directs the proxy to elect the following board members:

David W. Coppes	Thomas J. Durkin	Michele S. Gillen
Frederick A. Laskey	Carolyn M. Francisco Murphy	Brian Peña
Katherine Ronan	John J. Walsh	Rebecca Weidman

MASSACHUSETTS WATER RESOURCES AUTHORITY

By: _____
Rebecca Tepper
Chair
Board of Directors

Dated: Chelsea, Massachusetts
November 13, 2024

Massachusetts Water Resources Authority: 1,470 Shares

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: November 13, 2024
SUBJECT: Dental Insurance
Delta Dental of Massachusetts, Inc., d/b/a Delta Dental of Massachusetts, Contract A631, Amendment 3

COMMITTEE: Administration, Finance & Audit

_____ INFORMATION
__X__ VOTE

Wendy Chu, Director of Human Resources
Preparer/Title

Michele Gillen
Director of Administration

RECOMMENDATION:

To approve Amendment 3 to Contract A631 with Delta Dental of Massachusetts, Inc., d/b/a Delta Dental of Massachusetts, exercising the third option to renew, increasing the contract amount by $230,000 for a total not-to-exceed amount of $994,000, and extending the contract term by 12 months from January 1, 2025 to December 31, 2025 for a total contract term of 48 months.

DISCUSSION:

MWRA has been providing dental insurance to all Non-Union employees since July 1, 1985. This benefit is also available to confidential employees, as well as a number of union employees who were accreted into collective bargaining units in 1994. The remaining MWRA union employees receive dental coverage through the Health and Welfare plans of their respective unions.

In December 2021, the Board of Directors approved Contract A631 with Delta Dental of Massachusetts to provide dental insurance to eligible employees for a period of 12 months (Calendar Year 2022) with further options to renew the contract for up to three additional 12-month periods, subject to Board approval. In October 2022, the Board of Directors approved Amendment 1 to Contract A631 to extend the contract through Calendar Year 2023 and increase the contract amount by $235,000. In November 2023, the Board approved Amendment 2 to Contract A631 to extend the contract through Calendar Year 2024, increasing the contract amount by $240,000.

This amendment is for the third extension covering Calendar Year 2025 and would maintain the level of coverage currently offered to eligible employees in the areas of diagnostic, preventative, basic and major restorative services as well as limited orthodontic coverage. Additionally, the renewal rates for individual and family plans represent a 0% increase over last year's rates. The reason the contract extension amount is less than that of prior years' is because there are fewer subscribers for Calendar Year 2025.

Contract Summary	Amount	Term	Dated
Original Contract	$289,000	One Year	1/1/2022
Amendment 1	$235,000	One Year	1/1/2023
Amendment 2	$240,000	One Year	1/1/2024
Proposed Amendment 3	$230,000	One Year	1/1/2025
Amended Contract Total	$994,000		

BUDGET/FISCAL IMPACT:

The contract covers the second half of FY25 and the first half of FY26. The FY25 Current Expense Budget includes the cost of the dental insurance for eligible employees through the midpoint of Calendar Year 2025 and there are sufficient funds to cover an extension of the contract through June 30, 2025. The remaining cost of the contract extension will be included in the FY26 Current Expense Budget.

MBE/WBE UTILIZATION:
There are no MBE/WBE participation requirements established for this contract due to the limited opportunities for subcontracting.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: November 13, 2024
SUBJECT: Three-Year Contract for the Supply, Delivery, and Disposal of Regenerated Activated Carbon
Carbon Activated Corporation
Bid WRA-5496

COMMITTEE: Wastewater Policy & Oversight

_____ INFORMATION
_X_ VOTE

Michele S. Gillen
Director of Administration

David F. Duest, Director, Deer Island Treatment Plant
Douglas J. Rice, Director of Procurement
Preparer/Title

David W. Coppes, P.E.
Chief Operating Officer

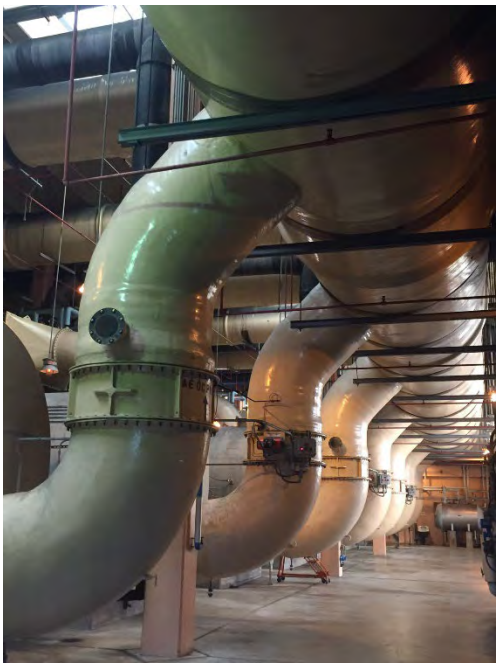
RECOMMENDATION:

To approve the award of purchase order contract WRA-5496, a three-year contract for the supply, delivery, and recycling or disposal of regenerated activated carbon to the lowest responsive bidder, Carbon Activated Corporation, and to authorize the Executive Director, on behalf of the Authority, to execute said purchase order contract in an amount not to exceed $1,379,025 for a period of three years, from December 12, 2024 through December 11, 2027.

DISCUSSION:

The Deer Island Treatment Plant's Title V air permit requires that any air contaminated during wastewater treatment must be treated to remove odor-causing compounds prior to release to the atmosphere. Therefore, gases from the areas above the primary clarifiers, secondary reactors and gravity thickeners, as well as air from grit removal, centrifuge operations, and pump station wet wells must be drawn off and treated prior to release to the environment. The permit sets a maximum emission limit for hydrogen sulfide at one ppm and various limits for volatile organic compounds. To reduce these compounds as required, Deer Island can operate most of its odor control facilities with either single-stage or dual-stage odor control systems, using wet scrubbers and/or carbon adsorbers.

Hydrogen sulfide loadings to the odor control systems along with strict Title V air permit limits require Deer Island to use wet scrubbers along with activated carbon when loadings are high. When loadings are low, use of activated carbon alone is both optimal and cost effective. During the hot weather months from July to September, hydrogen sulfide levels in the off-gases can exceed 400 ppm. Wet scrubbers must be used in tandem with carbon adsorbers to reduce hydrogen sulfide to acceptable levels.



East Odor Control Carbon Room

Residuals Carbon Unit #4

To minimize operating costs while continuing to meet air permit limits, staff evaluated different configurations for using the air scrubber units in the various odor control areas. Staff determined that carbon adsorption alone can lower contaminants to within the specified limits for most of the year and reduce the use of wet scrubbers in some process areas accordingly. This, in turn, reduces chemical, water, electricity and maintenance costs. However, these revisions in process result in a corresponding increase in the frequency of carbon change outs. Despite this increase, staff have determined that it is still more cost effective to operate on activated carbon adsorbers alone than operating both air scrubber systems year round for some process areas.

There are 29 carbon adsorption drums throughout the plant of varying capacities, containing between 12,000 to 31,000 pounds of activated carbon. All odor control areas contain more carbon drums than needed to allow for maintenance and change out as needed without impacting the operation or performance against the air permit. A drum is removed from service for carbon replacement when the air samples from the outermost layer of the carbon bed indicate that the carbon is no longer effectively removing the target compounds.

Staff estimate that approximately 400,000 pounds of regenerated carbon will be required each year under this contract. The scope of work also includes the removal and disposal or recycling of spent carbon, which is often shipped to a reprocessing plant where it is sorted by granular size and "regenerated." If the carbon is not considered reusable, the vendor is responsible for disposal.

Procurement Process

Bid WRA-5496 was advertised in the following publications: the Boston Herald, the Goods and Services Bulletin, El Mundo, the Dorchester Reporter, and Banner Publications. In addition, bids were made available for public downloading on MWRA's e-procurement system (Event 5994), and four potential bidders were solicited through the e-Portal.

Deer Island Odor Control Emission Stacks

On July 27, 2024, Event 5994 closed with the following result:

Vendor	1,200,000 pounds of removed and disposed carbon	1,200,000 pounds of newly delivered and installed carbon	Nylon Screen 11,250 square feet	Total Bid
Carbon Activated Corporation	$0.18/pound = $216,000	$0.96/pound = $1,152,000	$0.98/s.f. = $11,025	$1,379,025.00

Procurement staff contacted those vendors that were solicited, but did not bid. A representative from CarbPure Technologies, LLC stated that its manufacturing capability will not be ready until the end of this year and representatives from Calgon Carbon Corporation and Nichem Company both stated a decision was made not to bid at this time without providing additional details.

Bidders were instructed to submit bids on a price per pound basis that would include all costs for removal and disposal of spent carbon and a separate line item for the installation of newly delivered carbon. Bidders were also asked to submit a bid price for nylon screen material that is placed on top of the activated carbon to maintain an evenly distributed bed of carbon in each drum, as air up-draft could otherwise disrupt the carbon bed.

Under the current contract with Carbon Activated Corporation, which expires on December 11, 2024, MWRA is paying a price of $0.12 per pound for the removal, $0.89 per pound for the delivery and installation, and $0.90 per square foot for the nylon screen for a total contract cost of $1,222,125. The new contract will result in an increase of roughly 13% from the existing contract.

Staff reviewed the bid submitted by Carbon and determined it meets all of the requirements of the specifications. Staff have been satisfied with the product and service provided by Carbon under the current contract. The company has been responsive to requests and has performed in accordance with the terms of the current contract. The company has performed all the carbon replacements at Deer Island since 2007. Staff believe that Carbon's extensive experience servicing

Deer Island has provided the company with a strong understanding of the contract. The company obtains its raw activated carbon from China and regenerates all carbon within the United States. Recent increases in labor, rentals and gas costs have resulted in an increase in costs for this contract.

Staff recommend the award of this purchase order contract to Carbon Activated Corporation as the lowest responsive bidder.

BUDGET/FISCAL IMPACT:

The Operations Division's FY25 Current Expense Budget contains sufficient funding for activated carbon under account 29375-05214. The Proposed FY26 and FY27 CEBs will also include sufficient funds for the remaining two years of this contract.

MBE/WBE PARTICIPATION:

Carbon Activated Corporation is not a certified Minority-owned or Woman-owned business.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: November 13, 2024
SUBJECT: Update on Lead and Copper Rule Compliance – Fall 2024 and Rule Changes

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COMMITTEE: Water Policy & Oversight

X INFORMATION
VOTE

Stephen Estes-Smargiassi, Director, Planning and Sustainability
Preparer/Title

David W. Coppes, P.E.
Chief Operating Officer

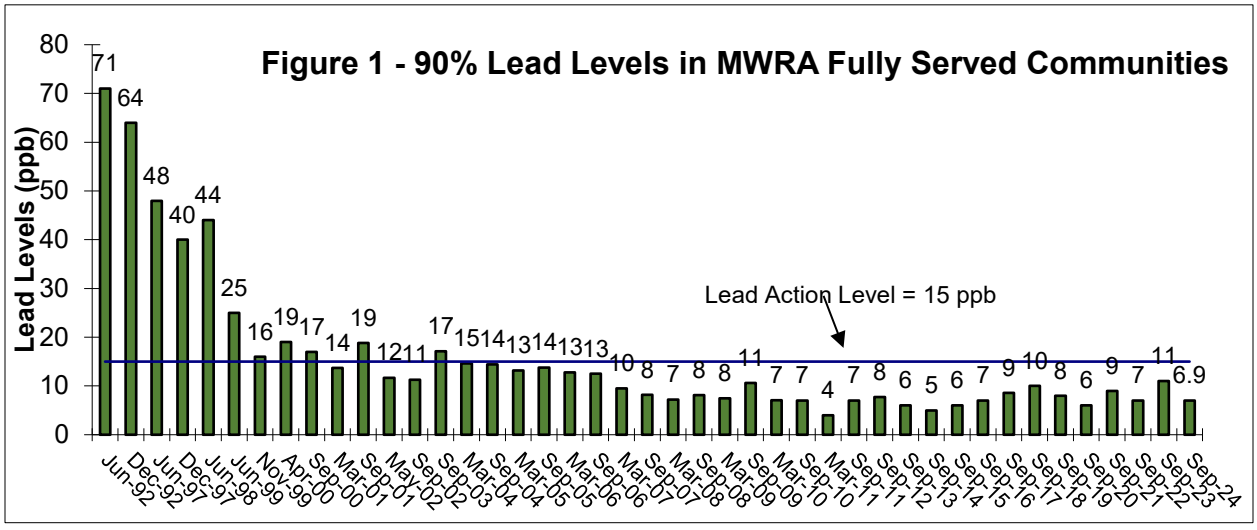
RECOMMENDATION:

For information only. This staff summary discusses results from the fall 2024 Lead and Copper Rule sampling round, recent changes to the rule, and the status of MWRA's lead service line replacement program.

DISCUSSION:

Under the federal Lead and Copper Rule (LCR), each year MWRA and every fully supplied community are required to sample from homes *that are likely to have high lead levels*. These are usually homes with lead services or lead solder. The Environmental Protection Agency (EPA) requires that nine out of ten of the sampled homes have lead levels at or below the Action Level of 15 parts per billion (ppb).

MWRA and its communities conducted the 2024 LCR sampling round beginning in September 2024. The 90th percentile lead value for the system as a whole is 6.9 ppb. The MWRA system has been below the lead Action Level of 15 ppb in every round since 2004.



In addition to determining how the system performs as a whole, EPA and the Massachusetts Department of Environmental Protection (MassDEP) look at each individual community. Only one community, Malden, was individually over the lead Action Level and will need to take individual actions as described below.

This year's results were somewhat better than those reported last year, with external factors tending to both lower and raise results. A positive factor influencing this round's results was that the dry seasonal precipitation pattern over the late summer and fall allowed staff to maximize the benefit of transferring more of the "well-aged" higher quality Quabbin Reservoir water into the "fresher" Wachusett Reservoir water. This allowed UV254 absorbance, which is a measure of the amount and reactiveness of the natural organic matter in the water, to be lower than typical for this time of year, tending to reduce lead levels.

As discussed at the November 15, 2023 Board of Directors' meeting, there have been substantial changes in the composition of the sampling pool due to EPA Region 1's changes to MWRA's sampling agreement. Those changes accelerated compliance with some aspects of the LCR Revisions, which otherwise would not be effective until October 2027, including more emphasis on testing homes with lead service lines. Over the past several years, the percentage of samples from homes with lead service lines has increased from approximately 40 percent of the sampling pool, to approximately 65 to 70 percent. MWRA's data matches that of most other water systems, in that homes with lead service lines are more likely to have elevated lead levels. In MWRA's sampling data, results from homes with lead service lines typically are several times higher than those from homes that have copper pipes with lead solder. In this sampling round, 16 out of 594 samples were above the lead Action Level; of the 16 samples above the Action Level, 15 were from homes with lead service lines.

Responses to each High Sample:

Every sample over the lead Action Level is taken seriously. MWRA staff immediately contact the community, and the community contacts the resident within three days with the results. This is followed up with additional information to the resident about the health risks of lead, and simple actions they can take. Within 30 days, the community contacts the resident to offer to further investigate the possible causes of the elevated levels. In many cases this results in the lead service being replaced. In addition, within five days, MWRA sampling staff check the water in the vicinity to assess whether the pH and alkalinity meet MWRA's corrosion control targets. In each of the 16 cases, results were typical and within limits.

Community Actions:

Another aspect of EPA Region 1's accelerated implementation of the Lead and Copper Rule Revisions is in public outreach by communities over the lead Action Level[1]. Each community is evaluated based on the samples collected in their community (typically 20 per community.) Malden exceeded the lead Action Level and was required to do a "Tier 1 Public Notice" within 24 hours of exceeding the Lead Action Level. This entailed providing the public notice to news outlets, using community reverse 911, and posting it on its website within 24 hours, as well as publishing it in a newspaper within 14 days. MWRA provided technical assistance to Malden in advance, as well as providing assistance in working with MassDEP. Previous Public Notices have

[1] As discussed below, this requirement is in effect nationwide as of October 16, 2024.

resulted in press coverage focused on the need to replace lead service lines, providing some additional impetus for homeowners to work with the communities to determine if they have a lead service line and to remove it. Malden will also need to provide a public education brochure on lead in water to all of its customers within 60 days. MWRA provides graphics and printing support.

MWRA has formally transmitted all the sample results to MassDEP and each community. The communities are required to transmit the results to each individual resident that collected a sample within 30 days. Lead data from all samples collected under the LCR since 1992, as well as under other programs, is posted on MWRA's website.

School and Childcare Sampling:

Under the LCR, MassDEP requires each community to collect samples from two schools or childcare facilities. Only two samples out of 116 (from 58 schools or childcare facilities tested) were above the lead Action Level. As with residential samples, MWRA staff immediately contact any community that has a school sample above the Action Level. All school data were provided to each community to transmit to the schools, and are available on DEP's online school database. A link to the DEP database is available on the MWRA webpage.

In addition to the testing done under the LCR, MWRA continues to offer no-cost laboratory analysis services to any of our customer communities that want to sample drinking water taps in schools or childcare facilities. The program is offered in coordination with the MassDEP's similar program. MWRA's laboratory has conducted over 44,800 tests from 664 schools and childcare facilities in 45 communities since 2016.

Under the revised LCR, beginning after October 2027, communities will be required to conduct sampling in 20 percent of elementary schools and licensed childcare facilities each year. This will be a substantial increase in community and MWRA workload.

CHANGES TO EPA'S LEAD AND COPPER RULE:

As of October 16, 2024, several major changes in the LCR regulatory structure took effect.

- All communities were required to submit service line inventories to the state, indicating for every service line the material on the public side, the material on the private side, or if the material is unknown. All MWRA communities complied with that requirement on time, and many have information about their inventories on their web sites. Staff are gathering the individual community results.

- Every community is required to mail a letter to every home with a lead service line, a "galvanized service line requiring replacement[2]" or those where the service line material is currently unknown informing residents and owners of the risks associated with lead by November 15. In the MWRA region, this will range from a few dozen in some communities to tens of thousands of letters in others.

[2] For simplicity, in this staff summary staff are referring only to lead service lines. EPA is also requiring certain galvanized service lines downstream of a lead line to be replaced. Staff have limited data on how many of these there are, but expect that the completed service line inventories will provide additional information.

- Every community over the lead Action Level will be required to issue the 24-hour Public Notice. MWRA has been piloting this requirement over the past several years, and thus far, seven communities have had to provide the notice.

On October 30, 2024, as anticipated and previously reported, EPA finalized the Lead and Copper Rule Improvements (LCRI), making additional changes to the regulatory structure. The changes will substantially alter the requirements on MWRA and our communities, increasing outreach, and mandating lead service line replacement for all communities. As previously discussed, the new rule also offers some important flexibility on treatment requirements as an incentive for faster action on lead service line replacement that MWRA plans to utilize.

The final LCRI fairly closely resembles the draft rule that staff reported on in detail on February 21, 2024, thus only key aspects of the LCRI are discussed briefly below.

Key Components of the Lead and Copper Rule Improvements:

The LCRI includes a myriad of detailed changes to aspects of the current LCR as well as to recent revisions, but the most significant changes include:

- lowering the lead Action Level from 15 parts per billion (ppb) to ten ppb;
- maintaining the required 24-hour public notice for systems over the lead Action Level;
- requiring all water systems to replace all lead service lines within ten years, regardless of lead sample results;
- changing sampling and how the 90th percentile is calculated for systems with lead service lines;
- if a system is over the Action Level three times in five years, it will be required to offer filters to all consumers;
- deferral of some requirements of the LCR Revisions (LCRR, the most recent rule change finalized in December 2021) until the LCRI is implemented in October of 2027; and
- allowing systems over the Action Level to defer changes to their corrosion control if they can replace all lead service lines within five years of the exceedance.

A few of these major changes are discussed below.

Lowering the Lead Action Level

EPA lowered the Action Level from 15 ppb to 10 ppb.

Any community over the new lower lead Action Level is required to issue the 24-hour Public Notice, and mail the lead Public Education brochure to all their customers, as well as do additional outreach. Over the past several rounds, between six and 12 communities have been over ten ppb, and in the past ten years, MWRA system-wide results have been above ten ppb once, and at or above nine ppb three times.

If system-wide results indicated that MWRA was over the lead Action Level, MWRA would be required to re-evaluate its corrosion control treatment using a pipe rig with salvaged lead service lines. (MWRA proactively proceeded with such a review to avoid being forced into an abbreviated schedule and potentially less reliable findings.) If the pipe rig experiments indicated that switching

treatment would reduce lead levels, MWRA would be required to change treatment. As discussed in previous Board meetings, and described below, there is a new provision to defer or avoid changing corrosion control.

Replace all Lead Service Lines within 10 Years

As anticipated, EPA is requiring that all water systems fully replace all lead service lines within 10 years of LCRI implementation in 2027, regardless of lead sample results. This is a dramatic switch from how the current LCR operated, in which lead service line replacement is triggered based on systems exceeding the lead Action Level.

Systems would also have to resolve the status of every service line in their inventory that was labeled as "lead status unknown." These unknowns must all be definitely categorized as non-lead or lead by the end of the ten-year period.

Changing Sampling and Reporting of Data

With the LCRI, EPA mandated changes in sampling requirements beginning in 2028. Systems with any lead service lines must do all of their sampling for compliance at locations with lead service lines, as well as collecting a fifth liter sample to better capture water within the lead service line. MWRA communities with lead service lines have already moved towards collecting all samples at those locations as discussed above; the inclusion of the fifth liter samples will further increase reported levels in the future.

Looking at all LCR sampling results over the past 10 years, 91 percent of the sample sites that had results over the current Action Level of 15 ppb (or the new Action Level of 10 ppb) were sites with lead service lines. The data makes it clear that if lead service lines were replaced, community and MWRA lead results would be significantly lower, and there would be a significantly lower probability of exceeding the Action Level.

Deferral of Corrosion Control Changes with Accelerated Lead Service Line Replacement

As discussed at the February 21 and May 22, 2024 presentations to the Board of Directors, EPA recognized that evaluating, designing and constructing changes to corrosion control treatment takes about five years, and that accelerating lead service line replacement is an important public health goal. In the final rule, EPA retained the provision that a system that exceeds the lead Action Level can defer proceeding with changes to its corrosion control treatment if it commits to replacing all of its lead service lines within five years, at a rate of 20 percent per year.

Corrosion control treatment is complex, affects many other aspects of treatment, and has complicated short and long-term interactions with materials within the distribution system and even home plumbing. To avoid the uncertainty and potential inadvertent negative impacts of treatment changes, MWRA expects to avail itself of this deferral provision. MWRA has set a goal of full replacement of all lead service lines by the end of 2032 (five years after the LCRI comes into effect) and staff are working with our communities to accelerate lead service line replacement towards that goal. The changes to the financial assistance program to include a 25 percent grant to those communities fully funding full lead service line replacement at no cost to the homeowner went into effect in July 2024, and have been extensively publicized to member communities with

training classes jointly sponsored by the Advisory Board in May and October, as well as individual outreach efforts to every community.

UPDATE ON LEAD SERVICE LINE REPLACEMENT PROGRAM

Based on information available prior to each community completing and submitting their initial service line inventories, staff reported that at least 20 of MWRA's water communities have some lead service lines, ranging from less than a dozen to several thousand: with a system wide estimate of around 15,400 lead service lines out of the over 525,000 total number of service lines (2.9 percent). Staff are working with communities and MassDEP to assemble a complete estimate based on the new inventories, and anticipate that those numbers may shift. Staff are aware of several communities that are reporting large numbers of "unknown" material service lines, which will complicate initial attempts to understand the full universe of service lines that will need to be replaced.

As described above, the new program was launched at the beginning of this fiscal year, and substantial outreach has occurred and is occurring. Community schedules are constrained by the need of governing body votes to accept the loans, with cities able to act more quickly than towns, which must go to town meeting for approval. The first disbursement of a loan and grant under the new program will be to the City of Chelsea in December. Chelsea has had an aggressive replacement program for a number of years, targeting efforts to their most disadvantaged neighborhoods, and replacing service lines at no cost to the owner. Chelsea has approximately 88 service lines to replace or resolve (64 Lead, 23 Unknown, and 1 galvanized line requiring replacement) and targets 2027 for full replacement. MWRA also recently received an application from the City of Revere for $1.9 million that will likely be disbursed early next year. Revere has around 450 lead service lines to be replaced, and almost 600 service lines of unknown material to be investigated.

To further accelerate replacements, MWRA staff worked with several communities, MassDEP and the Massachusetts Federal Funds and Infrastructure Office to pursue additional EPA grants for lead service line replacements and service line inventory improvements. Applications to EPA's Community Change grant program were submitted by Melrose ($4.2 M), Medford ($19.9 M), and Chelsea ($16 M); results of the grant applications are likely to be known later this fall.

Staff from Planning and Finance continue to work with staff from the state's SRF (State Revolving Fund) program to evaluate ways to further incentivize MWRA communities to accelerate lead service line replacement.

BUDGET/FISCAL IMPACTS:

The FY25 CIP includes $200 million of which approximately $156.3 million is remaining and available in the approved lead service line replacement loan and grant program, which is anticipated be sufficient to replace all the currently known lead service lines in the MWRA water service area. Interest costs are budgeted in the current expense budget.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: November 13, 2024
SUBJECT: Watershed Land Acquisition Program

COMMITTEE: Water Policy and Oversight

_X_ INFORMATION
___ VOTE

John Gregoire, Senior Program Manager, Western Operations
John Scannell, Director, Div. of Water Supply Protection, DCR
Preparer/Title

David W. Coppes, P.E.
Chief Operating Officer

RECOMMENDATION:

For information only.

DISCUSSION:

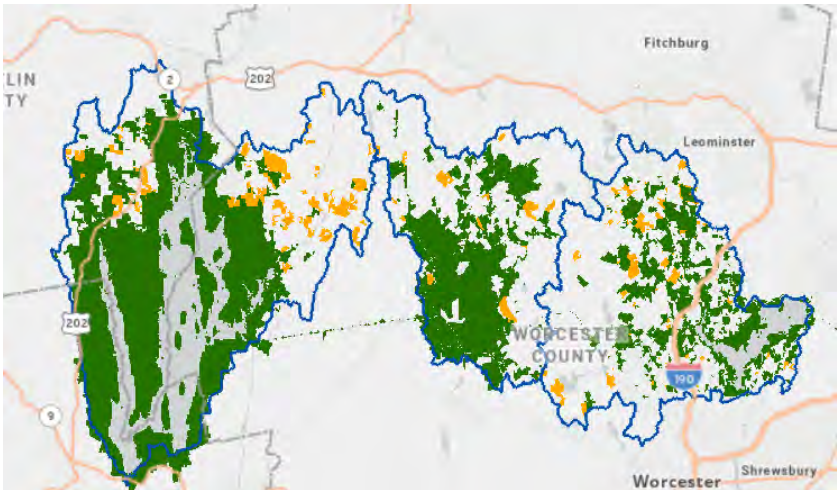
Prior to creation of the MWRA, the Metropolitan District Commission (MDC) was solely responsible for the metropolitan Boston water system. The MWRA's Enabling Act established the waterworks and watershed systems and allocated statutory responsibilities for these systems to the MWRA and MDC respectively. In 1985, MDC began the Watershed Land Acquisition program to protect watershed land from urbanization and to restore and maintain stable forest cover. The program focuses on maintaining water quality and preventing water quality degradation caused by development and storm water discharge from impervious surfaces.

The Watershed Land Acquisition Program under the MDC – Watershed Division was initially funded from three state bonds and a fiscal year budget allocation. These included Commonwealth open space bonds of $3 million established in 1983, $30 million established in 1987, and a $135 million bond established by the Watershed Protection Act of 1992. MWRA was then billed for the purchases of watershed lands and paid the debt service on the bonds.

The Department of Conservation and Recreation – Division of Water Supply Protection (DCR-DWSP) was created by legislation in 2003 and assumed responsibilities for the construction, maintenance, and operation of the system of watersheds, reservoirs, water rights, and rights in sources of water for the purpose of providing a sufficient supply of pure water to the MWRA. The Water Supply Protection Trust was created by legislation in 2004. The intent of the original legislation was to change the above described procedure by expressly authorizing the Trust to expend funds upon "the costs of watershed land acquisition." However, the final form of the legislation did not include express authorization to expend Trust funds for acquisition of watershed land. Further, the legislation included language prohibiting the Trust from entering into any agreement to acquire certain land including that which is "considered to be watershed property." by Massachusetts statute. Therefore, an alternate mechanism was created to purchase lands critical to protection of the watershed and water supply.

On December 15, 2004, the MWRA Board of Directors approved the use of MWRA bond proceeds to acquire, in the name of the Commonwealth, parcels of real estate or property interests (i.e., restrictions), the acquisition of which is necessary and advisable to the improvement of the MWRA waterworks system, the maintenance of water quality in MWRA water supply sources, and to the assurance of watershed protection.

Since 1985 the Land Acquisition Program, has successfully acquired and protected over 28,000 acres of water supply land in the Quabbin, Wachusett, and Ware River water supply watersheds (Tables 1 and 2). One of the most significant factors in MWRA's ability to maintain a filtration waiver was increasing the area under Water Supply Protection Control in the Wachusett Reservoir watershed from 8% to 25% of the watershed area. Since that time, the Program has increased the percentage of protected land in the Wachusett watershed to nearly 30%.



Watershed Land in Protected Status 2024
Green shows DCR-protected land.
Orange shows other protected open space.

DCR-DWSP Watershed Acquisitions 1985 - 2024

Watershed	Acres Fee	Acres WPR	Total Acres	Awards from MWRA Bonds	% of Total Acreage	% of Total Awards	Average Cost/Acre
Wachusett	12,563	2,727	15,290	$120,721,136	53%	83%	$7,895
Ware	3,842	1,534	5,377	$13,211,150	19%	9%	$2,457
Quabbin	2,830	5,213	8,043	$12,091,600	28%	8%	$1,503
TOTAL	**19,236**	**9,474**	**28,710**	**$146,023,886**	**100%**	**100%**	**$5,086**
% of acreage	67%	33%					

Table 1. DCR watershed land protection since 1985

DCR-DWSP Land Ownership as of July 1, 2024

Watershed	DWSP Fee	DWSP WPR[1]	Total DWSP Controlled	DCR % of Watershed Protected Land[2]
Quabbin Reservoir	58,973	5,201	64,174	62.7%
Ware River	24,565	1,414	25,979	41.2%
Wachusett Reservoir	18,675	2,717	21,392	29.2%
TOTAL	**102,213**	**9,332**	**111,545**	**46.5%**
Sudbury and Foss Reservoirs	2,775	-	2,775	14.5%

Table 2. DCR watershed land ownership as of July 1, 2024

This Staff Summary provides an overview of the land acquisition process. Attachment 1 includes a summary of recent modifications to the Geographic Information Systems (GIS) mapping and modeling technology, which helps inform parcel identification and selection.

Purchasing real property for water supply protection purposes requires expertise in real property and watershed management (including forestry, hydrology, wildlife management, and land use planning), strong negotiation skills, and a considerable amount of patience. Options are limited to the watershed system, and because land is finite, DCR-DWSP must navigate what the market provides.

DCR-DWSP works with willing landowners to buy real property interests throughout the Wachusett Reservoir, Quabbin Reservoir, and Ware River watersheds. These purchases can be for complete transfer of ownership (in fee), or for a Watershed Preservation Restriction (WPR) where the owner retains ownership of the property, but deeded terms are established that prohibit some activities, like development or forest conversion, that may be detrimental to water quality.

The land acquisition process involves ten steps to ensure the successful protection of priority parcels. The whole process, until the acquisition is completed, is confidential. Below is an overview of how the process typically unfolds.

1. **Project Cultivation**: Potential acquisitions are identified through multiple avenues; sellers may approach DCR-DWSP directly, partner organizations such as land trusts or municipalities may flag properties, and realtors aware of DCR-DWSP's program might offer leads. DCR-DWSP staff also monitor for-sale signs and online property listings, while proactively reaching out to high-priority landowners.

2. **Information Gathering**: Once a potential acquisition is identified, a desk-review begins. This includes analyzing the parcel through the Land Acquisition Model and using GIS data to assess natural and water resources, zoning, and tax parcel information. Potential threats to these resources, such as development capacity and pressure from the housing market to construct more homes, as well as historic hazardous materials use are also evaluated. A review of Registry of Deeds records provides key information on property ownership and boundaries, including previous surveys.

3. **Landowner Meeting**: A pivotal step in the process is the "kitchen-table" meeting with the

[1] Watershed Preservation Restriction (WPR), similar to a Conservation Restriction (CR), but held by DCR-DWSP.
[2] Total does not include Wachusett or Quabbin Reservoir surface area.

landowner. During this meeting, DCR-DWSP staff explain the benefits of conservation, and the landowner's goals are discussed. Various options, such as WPRs and fee purchases, are presented, along with discussions of gifts or bargain sales and potential tax benefits. A site walk allows DCR-DWSP staff to informally assess the property's natural resources and take photos for the record.

4. **Land Acquisition Model Overview**: The Land Acquisition Model is a key component in the review process, helping prioritize land protection efforts through a spatial sensitivity index that focuses on factors most significantly impacting water quality. While it is a powerful tool that helps staff identify and evaluate potential acquisitions, the Model has built-in limitations due to the algorithms and data involved in its computations. Expertise is required to interpret the Model in context of field evaluations and other physical or fiscal parameters. While a high ranking by the Model certainly indicates a parcel worthy of acquisition consideration, a lower ranking does not mean that a property is immediately disqualified from potential purchase. See Attachment 1 for additional details.

5. **LAP Project Review**: The Land Acquisition Panel (LAP) is comprised of directors and senior staff from various DCR-DWSP groups and a senior MWRA staff person. LAP reviews the project and receives input from forestry, environmental quality, and operations staff based on field site visits and "ground-truthing."[3] LAP evaluates the project against budget constraints and other acquisition priorities before recommending parcels for acquisition.

   To aid in LAP's review, a *Story Map* is developed to visually and narratively showcase the property's characteristics. The *Story Map* includes an overview of the parcel, a detailed assessment of water resources, the Watershed Protection Act (WsPA) regulated areas, the Land Acquisition Model ranking, and the property's natural resource values, including climate resilience. This background information is provided to LAP members prior to the meeting. LAP then deliberates on the attributes and merits of each parcel in the overall watershed protection goals, and renders a vote to approve going forward with an acquisition request to the MWRA Board of Directors, decline to pursue, or task the Land Acquisition Coordinator with pursuing further discussion with the landowner. Such topics may include seeking a bargain sale based on land conditions or market, or revision to parcel exclusions to better meet the needs of the acquisition.

6. **Price Negotiation**: Following LAP recommendations, an independent professional appraisal is conducted by a firm on a statewide contract to determine the parcel's fair market value. Price negotiations with the landowner are based on this appraisal, and, if necessary, DCR seeks collaborative funding from other organizations. Once a price is agreed upon, an agreement contingent upon MWRA Board of Directors' approval and additional due diligence is reached. DCR has a negotiation limit of 10% over appraisal.

7. **MWRA Board Approval**: A detailed Staff Summary is developed for presentation to the MWRA Board of Directors in Executive Session, and the votes on whether to approve the acquisition as recommended by staff.

8. **Due Diligence**: At this stage, DCR's legal team and outside firms perform additional due

3 "Ground truthing" is the process of confirming remote imaging data with what is observed in the field by comparing it with physical measurements collected at the ground level.

diligence. Title exams, surveys, and environmental assessments are completed. If fatal title flaws or environmental issues arise, DCR may halt the process or work with the landowner to resolve problems when possible. All necessary paperwork is drafted, including the taking instrument, and, for WPR projects, stewardship staff are introduced to the landowner (see below).

9. **Final Approvals**: With all forms and due diligence completed, DCR submits the package to MWRA's legal team and the Division of Capital Asset Management and Maintenance (DCAMM) for review and approval. Once the funding is transferred from MWRA to DCR, DCR obtains a check through the State Treasurer's Office for the landowner, and the sale is finalized with the new deed information submitted to the appropriate Registry of Deeds.

10. **Project Tracking and Monitoring**: Following the sale, DCR closes out the project files and enters records into the Land Information System. Fee properties are incorporated into DCR land management while WPRs are integrated into the WPR Stewardship Program.

From start to finish, the entire land acquisition process can take between 12 to 18 months, depending on the complexity of the project and any unforeseen hurdles. However, some projects experience repeated delays and restarts before finally reaching completion. If the project structure changes materially, it may require additional MWRA Board review and approval.

Once the land is acquired in fee, it becomes Commonwealth ownership with DCR responsibility for monitoring, maintenance and security. For the WPRs, the land remains privately owned, but the landowner agrees to follow the list of restrictions put in place to protect water quality. The terms of each WPR are unique and are developed in collaboration between the landowner and DCR based on a template approved by MWRA and the DCR Office of General Counsel. DCR has developed a detailed WPR Stewardship Program to ensure the land remains protected for water supply protection in perpetuity.

WPR Stewardship Program: Even though WPRs are privately owned, DCR has ongoing stewardship obligations to ensure the landowner is abiding by the list of restrictions. Important objectives of the WPR Program are documentation of baseline conditions on all new WPR properties, routine monitoring to check compliance with restrictions, resolution of any violations, and maintenance of good working relationships with landowners.

- Baseline Report: Baseline Documentation Report (BDR) is prepared for every new WPR to document the physical conditions of the property at the time it is protected. BDR consists of maps, narrative and photographs describing the condition of the property as it relates to the terms of the WPR. DCR monitors use of the BDR as a reference during regular site visits to identify changes to the property.

- Routine Monitoring: DCR currently holds 158 WPRs over 9,300 acres across Quabbin, Ware River and Wachusett watersheds. The WPR Coordinator, with the assistance of several DCR-DWSP staff (Regional Monitors) monitor 137[4] of the WPRs on the ground every two years. Each Regional Monitor is assigned 10-16 WPRs to monitor, which they can do as their schedule allows, but usually the same group of WPRs are monitored spring even years, fall even years, spring odd years and fall odd years. Having a scheduled season

4 The remaining 21 WPRs are on non-MWRA funded forest legacy parcels, are also monitored under this program.

and year for each WPR helps the program stay on schedule.

BUDGET/FISCAL IMPACTS:

Since 2005, the MWRA Capital Improvement Program (CIP) has included spending for land acquisition. With each CIP five-year cycle, staff request $5 million with a spread of approximately $1 million per year. Presently the FY25 CIP includes $34 million for watershed land acquisitions, of which $29.1 million has been spent through August 2024.

MWRA's Finance Division recently completed an analysis of the history of programmatic spending on Land Acquisition. Staff performed a reconciliation between the individual transaction amounts paid for watershed protection land acquisitions recorded in the financial accounting system and the detailed land records maintained by MWRA Western Operations and DCR-DWSP. A small number of transactions were identified for review. After reviewing the details of each transaction and appropriately adjusting any discrepancies, the Finance Division found that the existing records were accurate.

Massachusetts General Law Chapter 59 §5G mandates that DCR's Division of Water Supply Protection make Payments In Lieu of Taxes (PILOT) on the Commonwealth property managed by the Office of Watershed Management. These PILOT payments compensate the towns for taxes lost as a result of the taking or purchase of land for water supply production, protection, and storage.

The Watershed Management PILOT amount is determined by multiplying the Department of Revenue (DOR) valuation of DCR-DWSP land by the local commercial tax rate. (MWRA pays the highest use PILOT for the watershed parcels). The Massachusetts Municipal Modernization Act – Chapter 218, Section 108 of the Acts of 2016, established the process used by DOR for valuing state- owned land, which includes DCR Watershed Management under G.L. c. 58. The base year valuations are adjusted every two years by a percentage equal to the change in a city or town's equalized cash value. The PILOT program guarantees regular and stable payment to the affected watershed communities. DWSP and MWRA work diligently with the watershed communities and DOR to comply with the PILOT law. Since 1985, more than $200 million has been distributed in watershed PILOT payments. The current annual cost is approximately $8.5 million.

ATTACHMENT:

Attachment 1 – Land Acquisition Model Updates

Attachment 1

Land Acquisition Model Background

As GIS technology improves, so does the watershed model land analysis and output. The Land Acquisition model was initially developed in the mid-1990s specifically for the Wachusett Reservoir watershed to direct land acquisition efforts within that watershed. At that early stage in the land acquisition program, Wachusett watershed was the highest priority for land acquisition, so no similar models were in place for the Quabbin Reservoir (second priority) and Ware River (third priority), where acquisition opportunities were assessed on criteria specific to those watersheds.

With improvements in data accuracy, availability, and GIS mapping and modeling capabilities, models for Quabbin and Ware River were subsequently developed and have been in use for several years. To maintain consistency, the original model criteria and weighting system, which were thoroughly researched, were applied to the new models. However, since some criteria were not applicable to the Quabbin and Ware watersheds, some weights were redistributed accordingly.

The model evaluates parcels based on a set of weighted criteria, including factors such as slope, zoning, sewer systems, aquifers, and both Watershed Protection Act (WsPA)-regulated and non-regulated areas. Overlay basins were also incorporated within each watershed to further refine and prioritize land acquisition efforts by assigning higher sensitivity to subbasins that supply more water and/or are closer to reservoirs and intakes.

Wachusett Land Acquisition Model Updates

The Land Acquisition program has always placed parcels in Wachusett as the highest acquisition priority, within which the Reservoir Basin is the highest priority, followed by the Central Basin, and lastly, the Worcester Basin. The Worcester Basin was considered the lowest priority because it was assumed that the City of Worcester diverted most of the water from this basin—which includes the Quinapoxet, Pine Hill, and Kendall Reservoir drainage basins—for its own water consumption.

However, in recent years, the original Wachusett model has become less effective at differentiating between available parcels in areas where acquisition opportunities still exist. It also no longer accurately represents the importance of each basin to water quality. Given the progress made in acquiring land within the Reservoir and Central Basins, and new hydrologic data on water diversion by the City of Worcester, it was time to update the weighted criteria overlay basins for the Wachusett land acquisition model.

For this update, the same criteria and weights from the original model were retained. A detailed hydrological analysis revealed key findings:

- Approximately two-thirds of the water that flows into the Wachusett Reservoir originates from the Quinapoxet and Stillwater Rivers, with the Quinapoxet flowing through the Central and Worcester Basins and the Stillwater flowing through the Central Basin.

- 19% of the tributary inflow to the Wachusett Reservoir comes from the Quinapoxet Reservoir Drainage Area (contained within the northern Worcester Basin).

As a result, the Wachusett Model was updated to better reflect the significance of land in the Central and northern Worcester Basins in terms of water volume and quality, providing a more accurate and effective tool for evaluating potential land acquisition projects. This update splits the Worcester Basin into two separate subbasins and adjusts the overlay basin weights to account for each basin's proximity to the Reservoir and their contribution to the Reservoir's annual inflow. The adjustments include:

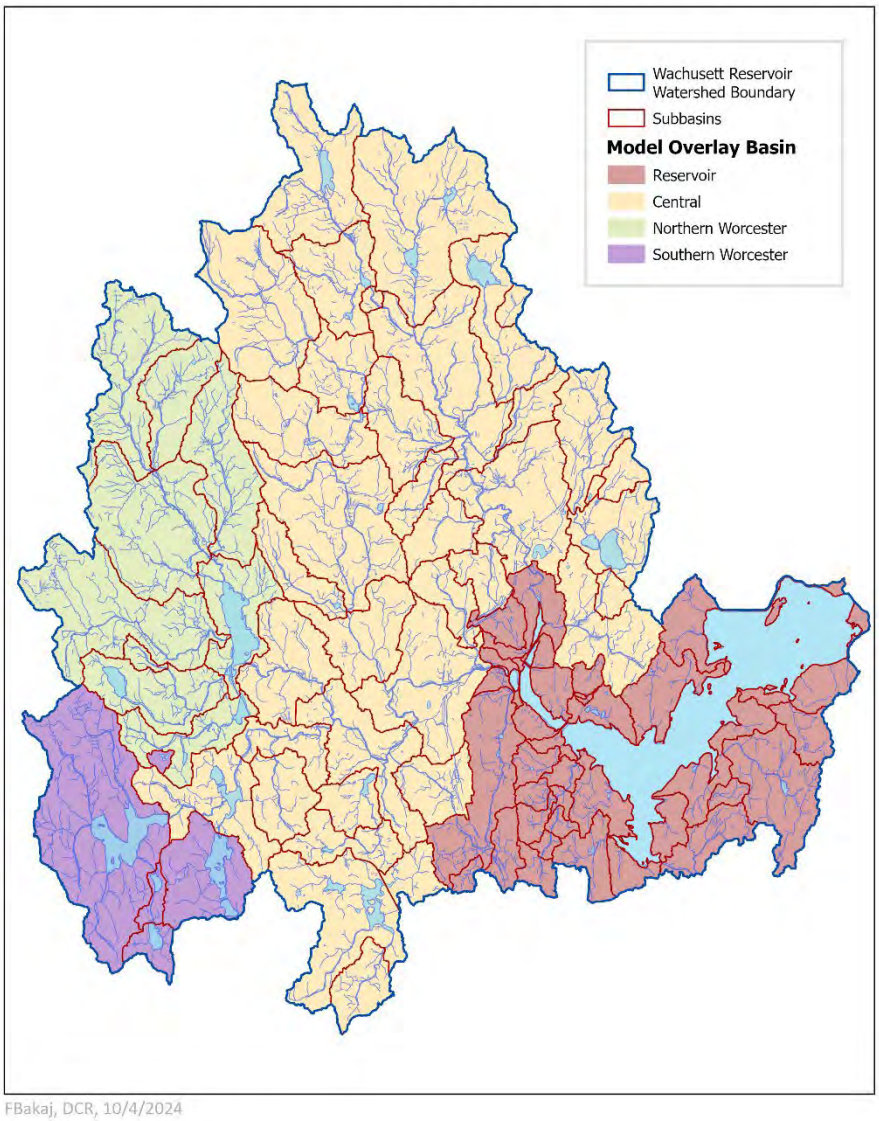
- **Central Basin:** Increased the overlay basin weight due to its significant contribution to the overall tributary inflow to the Wachusett Reservoir.

- **Northern Worcester Basin (Quinapoxet Reservoir drainage area):** Increased the overlay basin weight in light of its short reservoir residence time and notable contribution (19%) to the overall tributary inflow to the Wachusett Reservoir.

- **Southern Worcester Basin (Kendall/Pine Hill Reservoir drainage area):** Maintained the current overlay basin weight, given its higher water diversion rates and longer residence times.

- **Reservoir Basin:** Retained the highest overlay basin weight given its proximity to the Reservoir.

Wachusett Land Acquisition Model Overlay Basins



FBakaj, DCR, 10/4/2024

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: November 13, 2024
SUBJECT: Community Water Interconnections

COMMITTEE: Water Policy and Oversight

X INFORMATION
VOTE

Valerie L. Moran, P.E., Director, Waterworks
Lisa Bina, P.E., Deputy Director, Waterworks
Preparer/Title

David W. Coppes, P.E.
Chief Operating Officer

RECOMMENDATION:

For information only.

DISCUSSION:

MWRA has approximately 100 emergency interconnections with its member communities including Cambridge and Lynn. There are also four interconnections with non-MWRA communities: Springfield, Braintree, Wayland and Natick. MWRA's member communities have over 300 interconnections with their neighbors, including 26 known non-MWRA communities. Emergency interconnections provide mutual benefit and improved operational flexibility between communities. MassDEP policy encourages interconnections between neighboring public water supplies to help maintain water capacity to meet capacity development provisions of the federal Safe Drinking Water Act.

Figure 1: Pumping water from Milton's low service to high service areas

Emergency interconnections are utilized for many reasons, including droughts, water main breaks, water quality concerns, treatment plant isolations, construction and even normal water main maintenance. These interconnections can be all different sizes and may require pumping or reducing the pressure to help supply the neighboring community or different pressure zones within the same community. Sometimes a community may have to isolate a separate pressure zone or service area and utilize an interconnection to a neighboring community to supply that area. Interconnections can also be made by hose connection from one community's hydrant to another community's hydrant.

Over the past ten years, five non-MWRA communities have requested utilization of interconnections between them and a MWRA member community.

- From June 2013 to December 2014, the **Town of Hudson** utilized an interconnection with Marlborough to help supply the Town to remove a well from service due to water quality issues and another for maintenance and re-development. About 270 million gallons of water were used.

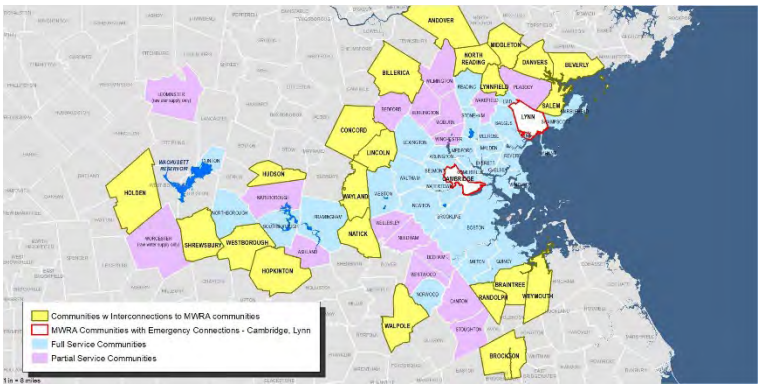


Figure 2: Communities with known interconnections with MWRA and MWRA communities

- From July 2016 to December 2016, due to low Hopkinton reservoir levels because of drought, the **Town of Ashland** opened an interconnection with the Town of Southborough. Ashland's well withdrawal is limited when Hopkinton reservoir levels are low, due to the vicinity of its wells to the reservoir. They used approximately 11 million gallons of water.

- In 2016, 2018, 2019 and 2020 the **Town of Burlington** opened its interconnection with Lexington for various reasons, including plant maintenance and water quality concerns. They used approximately 21 million gallons of water.

- In September 2020, **Lynnfield Center Water District** experienced a demand increase when more individuals stayed home during the pandemic and its water supply could not keep pace with demand. They opened a four-inch interconnection with neighboring Lynnfield Water District. Approximately 11,700 million gallons of water were used.

- From August 2024 to September 2024, the **Town of Wayland** utilized its emergency connection from the Hultman Aqueduct due to a well isolation because of water quality concerns and necessary well maintenance. They used approximately 18 million gallons of water.

Ashland and Burlington are now partial MWRA member communities and Wayland and Lynnfield Center Water District are in the process of becoming MWRA member communities.

While interconnections are useful for MWRA member communities and non-MWRA communities, they are also useful for MWRA. Some of these interconnections have been utilized in the past to help MWRA maintain supply to member communities in response to both emergencies, planned shutdowns and to support MWRA's capital program. A few examples;

1. A main break on the water supply to the Fore River Pellet Plant and the Braintree-Weymouth Intermediate Pump Station required an isolation to make repairs. An emergency connection with the City of Weymouth was opened in order to keep the pumps supplied with seal water.
2. During an MWRA valve replacement project in Arlington, staff asked the Town of Lexington to open an emergency connection with the Town of Winchester to keep a portion of Winchester supplied while the MWRA completed their work.

BUDGET/FISCAL IMPACTS:

Including surcharges, MWRA collected more than $1.1 million for emergency water provided to Hudson, Ashland, Burlington, and the Lynnfield Center Water District. The Town of Wayland will be billed approximately $98,000 for the 18mg of water they used from July to September 2024.

In addition, net asset value payments were collected from Hudson ($94,781.92), Ashland ($3,451.23), and Burlington ($40,763.51). The entrance fees for Ashland and Burlington were reduced by these amounts when they joined the MWRA water system in 2020.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: November 13, 2024
SUBJECT: Revised MWRA Operating Policy OP.05 Emergency Water Supply Withdrawals

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COMMITTEE: Water Policy & Oversight

_____ INFORMATION
__X__ VOTE

Rebecca Weidman, Deputy Chief Operating Officer
Stephen Estes-Smargiassi, Director, Planning and Sustainability
Colleen Rizzi, P.E., Dir. Environmental & Regulatory Affairs
Preparer/Title

David W. Coppes, P.E.
Chief Operating Officer

RECOMMENDATION:

To approve the following revisions to MWRA Operating Policy *OP.05 Emergency Water Supply Withdrawals*, substantially in the form attached hereto: (i) an increase to the "short-term" withdrawal duration from 30 days to 60 days; (ii) an authorization of the Deputy Chief Operating Officer to approve the short-term emergency use of MWRA water; and (iii) other conforming non-substantive policy refinements recommended by staff.

DISCUSSION:

OP.05 Emergency Water Supply Withdrawals outlines the criteria and process MWRA uses to evaluate a request from a non-MWRA water system member for emergency withdrawals of water. This policy applies to communities outside MWRA's water service area that are seeking water service on an emergency basis. Staff recommend the following revisions to OP.05.

Short-Term Withdrawal Duration

The current policy defines "short-term approval" as water withdrawals not exceeding 30 calendar days. In particular, the Executive Director or the Chief Operating Officer are currently authorized to approve the emergency use of MWRA water through an existing or temporary connection to MWRA or a MWRA water system community by a non-MWRA water system or facility for a period not to exceed 30 calendar days for any specific approval. Emergency withdrawals over 30 calendar days require MWRA Board of Directors' approval and are limited to a six-month agreement. For emergency withdrawal periods subsequent to the six-month agreement, approval by the MWRA Board of Directors and MWRA Advisory Board are required. Staff now recommend increasing the duration of short-term withdrawals for emergency use from 30 days to 60 days. The MWRA Board of Directors and MWRA Advisory Board will still need to approve emergency withdrawals exceeding short-term limits.

Emergencies such as presence of a contaminant in the water supply or drought conditions may take more than 30 days to address. Should these emergencies occur in the summer, as they often do, there is a risk of the 30-day limit expiring before a scheduled Board meeting. Increasing the

short-term withdrawal provides more time for a community to address an emergency condition without waiting for a scheduled MWRA Board meeting or needing to convene an emergency Board meeting.

Authorization of the Deputy Chief Operating Officer to Approve Short-term Withdrawals

The current policy states that the Executive Director or the Chief Operating Officer are authorized to approve the short-term emergency use of MWRA water. Staff now recommend that the Deputy Chief Operating Officer be similarly authorized to approve short-term withdrawals.

Other Conforming Non-substantive Policy Refinements

Staff is recommending minor editorial changes as shown on the attached redline version of the current policy to minimize repetition and make the policy consistent throughout.

BUDGET/FISCAL IMPACTS:

No budgetary impacts.

ATTACHMENT:

Redline version of *OP.05 Emergency Water Supply Withdrawals*

Emergency Water Supply Withdrawals **Policy #: OP.05**	
Effective Date: August 27, 1986	**Last Revised:** ~~10/11/06~~ 4/17/07
Contact: Planning Department, Executive Office	**Former Policy #:** P.II.K.2
Reviewed by Chief Operating Officer: ~~Michael J. Hornbrook~~	**Date:** ~~4/13/07~~
Reviewed by Internal Audit: ~~John A. Mahoney~~	**Date:** ~~4/17/07~~
Approved by Executive Director: Frederick A. Laskey	**Date:** ~~4/17/07~~

Purpose

This policy explains the criteria and process the MWRA will use to evaluate a request from a non-MWRA water system community for emergency withdrawals of water. This Document replaces the policy entitled "Emergency Water Supply Withdrawals" effective on ~~November 13, 2002~~April 17, 2007.

Eligibility

This policy applies to communities outside MWRA's water service area that are seeking water service on an emergency basis.

Continued on next page

In this Policy

This policy contains the following parts:

Continued on next page

Emergency Withdrawal Criteria

The following findings must be made by MWRA to approve requests from communities ~~-~~outside the MWRA waterworks system for emergency water supply withdrawals exceeding ~~thirty~~ sixty (60) calendar days. For emergency water supply withdrawals of water for periods of ~~less than thirty~~ sixty (60) calendar days or less, refer to the "Short Term Approvals" section of this policy:

- The DEP has declared that an emergency exists. MWRA will only provide the minimum amount of water necessary based on findings that the community requesting the emergency connection has:

  - Utilized and will utilize all feasible non-MWRA sources of supply for the duration of the emergency;
  - Taken and will take all feasible steps to both minimize its demand on the MWRA system and the duration of the emergency.

- Supply of emergency water to communities or users not listed in Section 8 (d) of the MWRA Enabling Act will strive for no negative impact on the interests of current communities, water quality, hydraulic performance of the MWRA water system, or the environment, or the interests of the watershed communities; shall attempt to achieve economic benefit for existing user communities; and shall preserve the rights of existing member communities. Any evaluation of the impacts of emergency withdrawals shall clearly evaluate all changes to system reliability.

- Long-term plans to remedy supply deficiencies have been developed. This may include improved water conservation, new local or regional supplies of water, changes to water treatment, or application for admission to the MWRA water system for legitimate water needs beyond feasible local sources.

- The applicant community does not use MWRA water supply as a chronic emergency back-up supply without equitable contribution for the fair asset value of the MWRA waterworks system.

Continued on next page

Application Process

~~The following process will be used by MWRA to evaluate requests from communities outside the MWRA waterworks system for emergency water supply withdrawals exceeding thirty days. For emergency water supply withdrawals of water for periods less than thirty days, refer to the "Short Term Approvals" section of this policy.~~ Applications for emergency water supply withdrawals ~~should~~ shall be submitted to the Executive Director of the MWRA ~~(three copies)~~. In instances where MWRA Advisory Board approval is also required (for the second emergency withdrawal period and beyond), applications should be simultaneously submitted to the Executive Director of the MWRA Advisory Board.

A. Application

MWRA staff will review and evaluate the application to determine the impacts of the emergency water connection on the MWRA water supply system. Applications for emergency water supply withdrawals will be considered for the duration of the emergency only, upon satisfactory completion of the requirements listed below.

B. Requirements

- The Department of Environmental Protection ("DEP") must declare that a water supply emergency exists ~~and authorize the purchase of such water from MWRA~~. Copies of the emergency declaration and any orders issued by DEP to the community under M.G.L. c. 21~~-~~G and any correspondence relative thereto must be submitted with the application.

- The community must provide evidence that a supply shortfall or disruption exists, provide reasons for the supply request, and document the amount of emergency supply requested, including, as appropriate:

  a. Safe yield, DEP registration and permitted withdrawals under the Water Management Act of available supplies. Average and maximum daily consumption for past three years on a monthly basis.

  b. Storage levels in reservoir or tanks (by elevation and volume).

Continued on next page

Application Process, continued

c. Estimate of days of supply remaining assuming drought, average and wet year runoff.

d. Safe yield of supplies lost to contamination.

e. Minimum allowable reservoir elevations (i) to keep intake flowing, (ii) for water quality, and (iii) for environmental requirements.

f. Minimum ground water levels for well supplies.

g. Other explanations of need for amount requested.

- The community must estimate the duration of the emergency during which it will need MWRA water.

a). For drought situations, length of time needed to recharge supplies assuming average rainfall.

b). For contamination: estimate of time for new sources or other corrective measures.

c). For equipment or facility failure: time to replace or repair or rectify situation

- ~~The community must provide an estimate of water use by class of users (*i.e.*, domestic, commercial, industrial, *etc.*).~~

- The community must describe all feasible non-MWRA emergency supply investigations and present plans for implementing them or reasons for rejecting them.

- The community must submit its long-range plans for correcting supply deficiencies and must demonstrate that it has developed or has plans to develop or restore all economically and technically feasible local sources. The plans shall include a description of funding sources and an implementation schedule.

Continued on next page

Application Process, continued

- For communities seeking a fifth emergency water supply withdrawal period, the community must submit a report with substantive detail delineating the community's long range plans and progress towards correcting supply deficiencies, plans to restore all economically and technically feasible local sources, and a detailed description of community based water conservation and accountability programs.

- The community must give sufficient data for hydraulic analysis by the MWRA including: local system operating pressures, pipe schematics of local system, and proposed location of emergency connection.

- The community must submit for approval a proposed inter-municipal agreement with a MWRA user community (the "transporting community") for payment of water, if the emergency water supply withdrawal is not directly from the MWRA system. This agreement shall provide for reasonable resale pricing by the transporting community, sufficient to recover costs including recovery of MWRA prevailing rate charges for water supplied on an emergency basis, use of the distribution system and legitimate local expenses only. The MWRA will directly charge the receiving community for premium charges and asset value contributions described in the "Charges" section of this policy. If the MWRA is unable to apply these charges directly to the receiving community, then the charges will be applied through the transporting community.

Continued on next page

Application Process, continued

- The community must submit a detailed description of water conservation and water accountability programs undertaken by the community or private entities including:

  Leak detection and repair
  Commercial and industrial water conservation
  Residential water conservation efforts
  Large meter downsizing
  Meter replacement
  Municipal facility conservation
  Unaccounted-for water analysis
  True- cost pricing and conservation-based pricing for water and sewer services
  Outdoor water restrictions
  Water supply protection measures

- The community must provide evidence that it has complied, or is in the process of complying, with applicable MEPA requirements.

C. Review of Application

Upon receipt of the community's application for an emergency water supply withdrawal, the MWRA will:

- Review the applicant's document to help determine if the MWRA can make the findings listed in Emergency Withdrawal Approval Criteria.

Continued on next page

Application Process continued

- Determine the impact of the proposed emergency water supply withdrawal on the MWRA's water supply system status and its ability to supply existing users. The assessment will include the possibility of increased usage of MWRA supplies by partially supplied and non-MWRA communities due to drought conditions. Impacts to service to other community connections under various hydraulic conditions will also be evaluated.

- Upon the request of the applicant, and subsequent to the completion of application review by MWRA staff and following consultation with the Advisory Board, MWRA staff will submit a status report and recommendation to the Board of Directors to inform it of the request, staff's review and the status of other pending permits and approvals.

Emergency Water Agreement

If MWRA approves the request for an emergency water supply withdrawal, it will establish appropriate terms and conditions of service in the form of an Emergency Water Supply Agreement.

A. Conditions

MWRA's approval of an emergency water supply withdrawal, including any applicable conditions of such approval, shall be set forth in an agreement with the community that shall contain the following terms as appropriate:

- Firm limits on average and/or maximum daily use, or time of day use, of MWRA water. A requirement in Emergency Water Supply Agreements for the second and subsequent six-month periods is that any increase beyond the stated limits on water use will require a recalculation of the asset value contribution payment (see the "Charges" section of this policy).

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Emergency water Agreement, continued

- A requirement that the community assumes all costs of connection and installs a suitable meter. The community must meter all water transfers to its distribution system whether connecting directly to the MWRA water system or receiving MWRA water through another community system rather than directly from MWRA.

- A requirement that the community shall use all feasible non-MWRA sources for the duration of the emergency.

- A requirement that the community shall submit a quarterly report on water usage, conservation program results, and status of emergency situation.

- A requirement that the community shall institute and continue all practical conservation measures including, but not limited to, the following:

  a) For initial agreements for withdrawal up to six months: a water conservation public education program

  b) For agreements for the second and subsequent six month periods: implementation of leak detection surveys and rehabilitation programs, 100% metering, a meter replacement program, pressure reductions where possible, implementation of true cost pricing and conservation-based pricing for water and sewer services, and a contingency plan describing how demand will be decreased if the local supply situation continues to deteriorate.

- ~~A requirement that the community meter all water transfers to its distribution system if it will receive MWRA water through another community system rather than directly from MWRA.~~

- The right of MWRA to terminate approval under unforeseen circumstances such as inadequate supply, insufficient hydraulic capacity, and other such conditions relating to the safe supply of existing users and operational requirements of the waterworks system.

- Other conditions as may be appropriate.

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Emergency Water Agreement, continued

B. Approval Term

The MWRA may approve emergency water supply withdrawals for no more than six months at a time. Each Emergency Water Supply Agreement will be no longer than six months. Emergency withdrawals beyond six months will require a new application and Emergency Water Supply Agreement. The MWRA Advisory Board must also approve emergency withdrawals ~~beyond the first six months~~for the second emergency withdrawal period and beyond. Advisory Board approval should be obtained prior to MWRA's approval. In considering withdrawals beyond six months, the MWRA will consider the applicant's efforts to reduce consumption, to implement its long- range plans and comply with DEP orders, and to implement water conservation program and water supply protection measures. The MWRA will also consider the impacts on MWRA's water supply system and its ability to supply existing users, and factors listed in the "Review of Application" section above.

Waivers

The MWRA may, in its discretion, waive any of the conditions or requirements set forth in this Policy and Procedure, not otherwise mandated by law or regulation, if it finds that the community has demonstrated unusual factors or extraordinary circumstances which would make imposition of the condition or requirement upon that community unfair or inappropriate and that the proposed action will not jeopardize the MWRA's ability to supply its existing water communities. Charges outlined in the section below will not be waived.

Charges

MWRA has adopted a rate structure for emergency water supply withdrawals that includes a premium charge added to the MWRA prevailing rate that shall apply to all emergency water connections, regardless of the nature of the emergency. Beginning with the first water withdrawal period after the effective date of this Policy, the premium charge shall be 10% of the MWRA's prevailing rate. Beginning with the second water withdrawal period, MWRA shall also assess an asset value contribution charge. Charges shall increase for additional periods of water withdrawal. Attachment A to this Policy presents a summary of charges for emergency water supply withdrawals.

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Charges, continued

For the purpose of this Emergency Water Supply Withdrawal Policy, a "period" is typically defined as one six-month Emergency Supply Agreement. Any six-month Emergency Water Supply Agreement between a community and the MWRA shall be counted as a "period". If there are repeated short-term withdrawals of sixty (60)~~30~~ calendar days or less, MWRA reserves the right to assess the same premium charges as are applied to six-month emergency water supply agreements. Rules governing premium charges and asset value contribution are only invoked when water is transferred from the MWRA to the Applicant community. The transfer of water from the MWRA to the applicant community serves as a trigger to initiate the corresponding premium charge and asset value contribution. Periods when there is no water withdrawal shall have no effect on the schedule of charges. Payment for emergency water supply withdrawals from the MWRA waterworks system shall be made by the user community on a monthly basis, unless otherwise specified.

If an applicant has purchased MWRA water under an emergency supply agreement and has paid charges that ~~which~~ include an asset value contribution and subsequently is approved admission to the water system on a permanent basis, the asset value contributions paid will be treated as credits against the total entrance fee. Payments of premium charges under an emergency supply agreement are not credited towards the entrance fee.

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Short-term Approvals

The Executive Director, ~~or~~ the Chief Operating Officer, or the Deputy Chief Operating Officer ~~is~~ are authorized to approve the emergency use of MWRA water through an existing or temporary connection to the MWRA or a MWRA water system community by a non-MWRA water system or facility for a period not to exceed sixty ~~thirty~~ (60~~30~~) calendar days for any specific approval. A DEP declaration of water supply emergency in the requesting community, or alternatively, submission by the community of documentation supporting the existence of conditions that could lead to a DEP declaration of water supply emergency per M.G.L. c.21-G, § 15, is required for these emergency situations. Approval shall only be granted based on emergencies of non-chronic nature, such as supply and transmission disruptions. Such approval, if granted, shall be consistent with this Policy to the maximum extent feasible in the situation. The community must provide an initial written statement requesting emergency water supply, describe the situation, and present a plan for resolving it. The Board of Directors shall be notified of approvals granted under this paragraph. At the end of the temporary use, the community must provide a follow-up letter documenting how much water was purchased from MWRA or MWRA water system community, and how the situation was resolved.

Continued on next page

ATTACHMENT A

MWRA Charges for Emergency Water Withdrawals

Emergency Supply Agreement Period One:
- 110% of the MWRA prevailing rate

Emergency Supply Agreement Period Two:
- 110% of the MWRA prevailing rate plus,
- 110% of 1/3 of the annual payment associated with asset value contribution payment (as calculated pursuant to methodology described below) amortized with interest over 15 years.

Emergency Supply Agreement Period Three:
- 110% of the MWRA prevailing rate plus,
- 110% of 2/3 of the annual payment associated with asset value contribution payment (entrance fee equivalent as calculated pursuant to methodology described below) amortized with interest over 15 years.

Emergency Supply Agreement Period Four:
- 110% of the MWRA prevailing rate plus,
- 110% of the annual payment associated with the asset value contribution payment (as calculated pursuant to methodology described below) amortized with interest over 15 years

Emergency Supply Agreement Periods Five to Seven:
- 130% of the MWRA prevailing rate plus,
- 130% of the annual payment associated with the asset value contribution payment (as calculated pursuant to methodology described below) amortized with interest over 15 years

Note: Premium charges shall increase by 10% for each subsequent three emergency supply agreement periods beginning with period eight (e.g., the premium charges for period 8-10 premium charge would be 140%; the premium charges for periods 11-13 would be 150%, and the premium charge for periods 14-16 would be 160%, etc).

The asset value contribution is based on the following basic formula:

$$\frac{\text{Emergency user's projected MWRA water needs}}{\text{MWRA system water consumption (withdrawals for most recent 3 years)}} \times \text{Net Asset Value of Waterworks System}$$

If an applicant has purchased MWRA water under an emergency supply agreement and has paid charges ~~which~~ that include an asset value contribution and subsequently is approved admission to the water system on a permanent basis, the asset value contributions paid will be treated as credits against the total entrance fee. Payments of premium charges under an emergency supply agreement are not credited towards the entrance fee.

STAFF SUMMARY

TO: Board of Director
FROM: Frederick A Laskey, Executive Director
DATE: November 13, 2024
SUBJECT: November 2024 PCR Amendments

COMMITTEE: Personnel and Compensation

____ INFORMATION
__X__ VOTE

Wendy Chu, Director of Human Resources
Preparer/Title

Michele S. Gillen
Director, Administration

RECOMMENDATION:

To approve amendments to the Position Control Register (PCR) included in the attached chart.

DISCUSSION:

The Position Control Register lists all positions of the Authority, filled and vacant. It is updated as changes occur and it is published at the end of each month. Any changes to positions during the year are proposed as amendments to the PCR. All amendments to the PCR, except those resulting only in a change in title or cost center, must be approved by the Personnel and Compensation Committee of the Board of Directors. All amendments resulting in an upgrade of a position by more than one grade level, and/or an amendment which creates a position increasing annual cost by $10,000 or more, must be approved by the Board of Directors after review by the Personnel and Compensation Committee.

November 2024 PCR Amendments

There are two PCR Amendments this month.

Organizational Changes:

1. Title and grade change to one filled position in the Administration Division, Occupational Health and Safety Department from an Administrative Coordinator (Unit 1, Grade 18) to Administrative Systems Coordinator (Safety, Training & Facilities Management) (Unit 1, Grade 20) due to position reclassification.
2. Title and grade change to one filled position in the Operations Division, Capital Engineering Department from an O&M Systems Specialist (Unit 1, Grade 20) to Technical IS Administrator (Unit 1, Grade 22) due to position reclassification.

BUDGET/FISCAL IMPACT:

The annualized budget impact of these PCR amendments will be a cost of $18,457. Staff will ensure that the cost associated with these PCR amendments will not result in spending over the approved FY25 Wages and Salaries budget.

ATTACHMENTS:
Job Descriptions

MASSACHUSETTS WATER RESOURCES AUTHORITY
POSITION CONTROL REGISTER AMENDMENTS
FISCAL YEAR 2024

PCR AMENDMENTS REQUIRING BOARD APPROVAL - November 13, 2024

Number	Current PCR #	V/F	Type	Current Title	UN	GR	Amended Title	UN	GR	Current/Budget Salary	Estimated New Salary			Estimated Annual $ Impact			Reason For Amendment
B17	Administration Occupational Health and Safety 8910012	F	T, G	Administrative Coordinator	1	18	Administrative Systems Coordinator (Safety, Training & Facilities Management)	1	20	$84,852	$93,758	-	$93,758	$8,906	-	$8,906	Position reclassification.
B18	Operations Capital Engineering 2971026	F	T, G	O&M Systems Specialist	1	20	Technical IS Administrator	1	22	$93,759	$103,310	-	$103,310	$9,551	-	$9,551	Position reclassification.
				BOARD TOTAL =	2						**TOTAL:**			$18,457	-	$18,457	

MWRA
POSITION DESCRIPTION

OLD

POSITION: Administrative Coordinator

DIVISION: Executive, Operations, Law, Administration & Finance

DEPARTMENT: Deer Island, Law, Support Services, Public Affairs, Human Resources, MIS, Internal Audit, E&C, TRAC

BASIC PURPOSE:

Provides administrative support and assistance to the Director, Manager, and/or departmental staff. This provides a range of possible duties, but will not necessarily perform all the duties listed below.

SUPERVISION RECEIVED:

Works under the general supervision of the Department Director or Manager.

SUPERVISION EXERCISED:

May exercise supervision over temporary or assigned entry-level and clerical personnel.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Assists the Manager of the department in dissemination and implementation of administrative policies and procedures relative to personnel, budget, finance, payroll, purchasing and other administrative matters.

- Updates and implements changes of all departmental personnel records as needed including the completion, submittal and follow-up of necessary MWRA forms. Supervises, inputs and maintains timekeeping and payroll for the department.

- Schedules and prepares personnel hiring, benefits, salary increases and/or promotion documents. Refers managers and employees to union contract provisions Human Resources policies and Procedures. Directs complex issues to HR Labor Relations.

- Assists with the planning and implementation of MWRA outreach efforts, including meetings, conferences, facility tours and related workshops.

- Develops and maintains department database management, spreadsheet filing systems, all

and all-departmental files as required.

- Purchase departmental supplies and monitor's expenses. Compiles and reviews spending reports.

- Maintains Director's/Manager's schedule and appointments and is responsible for any administrative support needed.

- Responds to public information requests.

- Reviews and prepares monthly accrual information and inputs into computer systems.

- Receives and distributes mail. Composes routine correspondence.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

(A) A two (2) year college program in business administration, business management, finance, public administration or a related field; and

(B) Understanding of personnel, payroll and procurement and administrative policies as acquired by three (3) to five (5) years of related experience; or

(C) Any equivalent combination of education and experience.

Necessary Knowledge, Skills and Abilities:

(A) Demonstrated skills in Microsoft Word, Excel, Access, PowerPoint, and Outlook are required. Knowledge of financial software programs is highly desirable.

(B) Knowledge of MWRA Administrative Policies and Procedures including hands-on experience with payroll and personnel processing.

(C) Ability to work with minimal supervision in a fast-paced environment.

(D) Demonstrated strong organizational, verbal, and written communications skills required.

SPECIAL REQUIREMENTS:

Must have successfully completed the MIS and professional development-related ACP requirements for this position. If no qualified ACP certified applicant applies for the position, the selected candidate will have 6 months to complete the ACP program.

TOOLS AND EQUIPMENT USED:

Office equipment as normally associated with the use of telephone, personal computer including word processing and other software, copy and fax machine.

PHYSICAL DEMANDS:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job.

Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions. While performing the duties of this job, the employee is regularly required to use hands to finger, handle, feel or operate objects, tools or controls and reach with hands and arms. The employee frequently is required to sit and talk or hear. The employee is occasionally required to walk; stand; climb or balance; stoop, kneel, crouch, or crawl; taste or smell.

The employee must frequently lift and/or move up to 10 pounds and occasionally lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision, distance vision, depth perception, peripheral vision and the ability to adjust focus.

WORK ENVIRONMENT:

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job.

While performing the duties of this job, the employee frequently works in outside weather conditions. The employee occasionally works near moving mechanical parts, and is occasionally exposed to wet and/or humid conditions and vibration. The employee occasionally works in high precarious places and is occasionally exposed to fumes or airborne particles, toxic or caustic chemicals and risk of electrical shock.

The noise level in the work environment is usually loud in field settings and moderately quiet in an office setting.

October 2021

MWRA
POSITION DESCRIPTION

NEW

POSITION: Administrative Systems Coordinator (Safety, Training & Facilities Management)

DIVISION: Operations and Administration

DEPARTMENT: Occupational Health & Safety, Human Resources, and Facilities Management (Chelsea)

BASIC PURPOSE:

Provides comprehensive administrative support to the Occupational Health & Safety Department, the Human Resources Training Unit, and the Chelsea Facilities Management team. Performs tasks related to invoicing, timekeeping, purchase orders, inventory control, and contract administration. Responsible for recordkeeping, correspondence, and file management.

SUPERVISION RECEIVED:

Works under the general supervision of the Director, Occupational Health & Safety, Manager, Training & Development, and Materials Coordination Manager.

SUPERVISION EXERCISED:

May occasionally exercise supervision based on specific assignments.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Manages all administrative activities such as payroll, accounting, inventory control and purchasing of items including equipment, supplies, and materials.

- Assists in the dissemination, direction and implementation of administration policies and procedures.

- Assists in yearly budget requests and manages databases for current expense budget for accounts and to-date reporting or expenditures. Answers quarterly variance questions and all other related budgetary questions.

- Coordinates the implementation of and manages the efficient use of the computerized programs in accordance with Authority policies and procedures.

- Reviews invoices to verify the accuracy of data submitted and cross references data against contract documents. Assists with tracking contract data, including but not limited to

overhead rates, contract hourly rates, fees and salaries. Updates contract data tracking as necessary to ensure accuracy of contract invoice details.

- Coordinates the preparation of documents, reports, etc. in support of administrative, payroll, and inventory functions.

- Performs administrative duties such as correspondence, scheduling, filing, etc.

- Develops and implements computer generated work order systems and coordinates with material requirements as needed.

- Creates, distributes, and maintains training certificates and attendance records.

SECONDARY DUTIES:

- Provides occasional administrative support to the Emergency Service Unit/Site Characterization Team and Boom Deployment Team (approximately 10-15 hours/month).

- Coordinates special projects as needed.

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

(A) An Associate's degree in business or any field; and

(B) Organizational and administrative skills as attained through at least four (4) years' experience; or

(C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

(A) Demonstrated proficiency in Microsoft Office products including Outlook, Word, Excel, Access and PowerPoint.

(B) Familiarity with tracking software, preferably Lawson and Infor Rich Client.

(C) Demonstrated experience in planning, organizing, and supervising projects.

(D) Excellent analytical, interpersonal, oral and written communication skills.

(E) Experience using virtual conferencing and collaboration tools such as Webex.

(F) Knowledge of Adobe Acrobat Professional.

(G) Familiarity with learning management software, preferably Infor Learning Management System.

(H) Demonstrated ability to pay attention to detail.

SPECIAL REQUIREMENTS:

- A valid Class D Massachusetts Motor Vehicle Operator License is strongly preferred for occasional travel to other MWRA work sites.

- Must have successfully completed the MIS and professional development-related ACP requirements for this position. If no qualified ACP certified applicant applies for the position, the selected candidate will have 6 months to complete the ACP program.

TOOLS AND EQUIPMENT USED:

Office equipment as normally associated with the use of telephones, personal computers, word processing and other software, email, videoconference applications, copiers, scanners, and fax machines.

PHYSICAL DEMANDS:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential duties.

While performing the duties of this job, the employee is regularly required to sit, talk or hear. The employee is regularly required to use hands to finger, handle, feel or operate objects, including office equipment, or controls and reach with hands and arms. The employee frequently is required to stand and walk.

The employee must regularly lift and/or move up to 10 pounds. Specific vision abilities required by this job include close vision, color vision and the ability to adjust focus.

WORK ENVIRONMENT:

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. While performing the duties of this job, the employee regularly works in an office environment.

The noise level in the work environment is usually a moderately quiet office settings.

November 2024

MWRA
POSITION DESCRIPTION

OLD

POSITION: O & M Systems Specialist

DIVISION: Operations

DEPARTMENT: TIC/Capital Programs/Deer Island

BASIC PURPOSE:

Assists in the development and implementation of various information systems within the Technical Information Center. Oversees the daily operations of Technical Document Control System (InfoStar), Technical Document Imaging System and interfaces with MWRA Computer Aided Design System (GDS and AutoCAD).

SUPERVISION RECEIVED:

Works under the general supervision of the Program Manager, Technical Information Center.

SUPERVISION EXERCISED:

None.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Administers application development projects involving Electronic Document Controls, Computer Aided Design and Image Management Software, including feasibility studies, conceptual/detailed designs, programming, testing, implementation and audit.

- Oversees and controls production operations including document preparation, scanning, indexing, image verification and image committal to electronic storage.

- Monitors end-user feedback for problems/opportunities relating to system performance and takes appropriate actions to address same.

- Maintains technical reference library at TIC, including installs software, identifies the plant needs, makes recommendations for new publications and for improvement, updates the user group, contacts vendors, and maintains an updated product/vendor inventory.

- Plans and develops logical file structures on computer servers to store TIC's electronic document, including manuals, specifications, images, drawings, etc.; assists in administering the server usage; develops effective and efficient methods for retrieval purposes.
- Oversees the activities of reconciliation of TIC's document among different media, including

develops methods, performs comparisons, updates records, and documents all changes.

- Performs Quality Assurance/Quality Control (QA/QC) on consultant supplied electronic document, including reports, manuals, drawings; documents the result; files the document into appropriate TIC storage area; reports problems if there are any discrepancies.

- Reproduces electronic copies of TIC provided document for plant staff, consultants or other MWRA department, via CD, zip disks, floppy disks, e-mail, or other up-to-date electronic media.

- Oversees the engineering document conversion activities, including scanning, OCR, index, publishing, hardware and software upgrades.

- Acts as liaison with MIS/FIS for ongoing support including computer software, hardware, network performance, updates, problem reporting and correction, and improvement.

- Receives and processes verbal, written, electronic, and telephone requests for plant and library records. Makes the requested record available to the requester

- Provides training on all related hardware and software.

- Verifies scanned images on automated high-resolution workstations checking for contrast, byte density, overall legibility and skewed documents.

- Assesses production/quality control statistic and adjusts operational plans and schedules based on feedback.

- Develops tactical plans required to achieve specified goals and schedules.

- Operates a variety of equipment including CADD workstations, plotters, scanners, digitizers, laminators, engineering copiers, CDROM servers and file servers.

SECONDARY DUTIES:

- Performs other related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

(A) A two (2) year college program, with courses in related areas; and

(B) Three (3) years of experience in engineering documentation and automated management systems; or

(C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

(A) Experience with automated information systems, data processing, relational databases, and data communication as well as Jukebox and File Services Systems.

(B) Ability to perceive and analyze problems, develop alternatives, and effect solutions with sound judgement.

(C) Ability to interface system designs with technical requirements of operating and database management systems.

(D) Excellent oral and written communication skills.

SPECIAL REQUIREMENTS:

None.

TOOLS AND EQUIPMENT USED:

Office equipment as normally associated with the use of telephone, personal computer including word processing and other software, copy and fax machine.

PHYSICAL DEMANDS:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to use hands to finger, handle, feel or operate objects, tools or controls and reach with hands and arms. The employee frequently is required to sit and talk or hear. The employee is occasionally required to walk; stand; climb or balance; stoop, kneel, crouch, or crawl; taste or smell.

The employee must frequently lift and/or move up to 10 pounds and occasionally lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision, distance vision, depth perception, peripheral vision and the ability to adjust focus.

WORK ENVIRONMENT:

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job.

While performing the duties of this job, the employee regularly works in an office environment. The noise level in the work environment is moderately quiet.

January 2001

MWRA
POSITION DESCRIPTION

NEW

POSITION: Technical Information Systems Administrator

DIVISION: Operations

DEPARTMENT: Engineering and Construction, Capital Engineering

BASIC PURPOSE:

Administers and coordinates the activities involving department technical information, and ensures the efficient control and availability of technical information for the Operations Division facilities.

SUPERVISION RECEIVED:

Works under the general supervision of the Sr. Program Manager (DISC) or Program Manager (Capital Engineering).

SUPERVISION EXERCISED:

Based on assignment, may supervise other administrative staff.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Assures the efficient generation, updating and execution of records inventories and retention schedules.

- Performs and coordinates the efficient cataloging, quality control, management, storage and distribution of information to and from the MWRA's Electronic Content Management systems.

- Based on assignment, may ensure the efficient utilization of computer based database indexing systems. Coordinates efforts with MIS/Permitting/GIS/Field Operations and other units for appropriate support services for timely modifications, improvements and maintenance.

- Based on assignment, may test and evaluate plotting equipment, procedures, and supplies to ensure fidelity and continuity.

- Provides for reproduction of hardcopy and electronic, plans, specifications, shop drawings and other records maintained in the department's systems and Records Center (Walpole), as required by the department staff and other Authority staff as needed.

- Based on assignment, may review procedures and service requirements for the department

systems and provide recommendations for improvements.

- Oversees the efficient, neat, safe and orderly handling and storage of all department documents.

- Maintains inventories of supplies, prepares supply usage forecasts, and makes product value comparisons.

- Serves as a primary contact for MIS department personnel and vendors on any equipment, network, computer and software problems.

- Based on assignment, may maintain technical reference library at the Technical Information Center (TIC), including installation of software, identifying the plant needs, making recommendations for new publications and improvements, updating the user group, contacting vendors, and maintaining an updated product/vendor inventory.

- Based on assignment, may develop logical file structures on computer servers to store TIC's electronic documents, including manuals, specifications, images, drawings, etc. Assists in administering the server usage. Develops effective and efficient methods for retrieval purposes.

- Based on assignment, may oversee the activities of reconciliation of TIC's documents among different media, including developing methods, performing comparisons, updating records, and documents all changes.

- Based on assignment, may perform Quality Assurance/Quality Control (QA/QC) on consultant supplied electronic documents, including reports, manuals, and drawings. Documents the results and files the document into appropriate TIC storage area. Reports any discrepancies.

- Based on assignment, may oversee the engineering document conversion activities, including scanning, OCR, index, publishing, hardware and software upgrades.

- Provides training to department staff and others on all related hardware and software.

- Defines/executes backup schedules for all electronic files.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

(A) Knowledge of library or information management practices and procedures as normally attained through an Associate's degree in information science, library science, or related field; and

(B) At least four (4) years of experience projecting supply usage, drafting correspondence, documenting operating procedures, and administering computer based records systems; or sand

(C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

(A) Proficiency with computers and knowledge of Microsoft Office Suite.

(B) Working knowledge of electronic content filing systems.

(C) Experience managing technical documentation is required. Familiarity with engineering change notice procedure is preferred.

(D) Knowledge of graphic printing processes as obtained through exposure to computer aided drafting and design, computer aided publishing, geographic information systems, document scanning/printing systems, or similar systems.

(E) Considerable working knowledge of office practices and procedures.

(F) Excellent interpersonal, oral and written communications skills.

SPECIAL REQUIREMENTS:

A valid Class D Massachusetts Motor Vehicle Operators License.

TOOLS AND EQUIPMENT USED:

Office equipment as normally associated with the use of telephone, personal computer including word processing and other software, copier, scanner, plotter and fax machine.

PHYSICAL DEMANDS:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to use hands to finger, handle, feel or operate objects, tools or controls and reach with hands and arms. The employee frequently is required to sit and talk or hear. The employee is occasionally required to stand, walk, climb or balance, stoop, kneel, crouch, or crawl, taste or smell.

The employee must frequently lift and/or move up to 10 pounds and occasionally lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, depth perception, peripheral vision and the ability to adjust focus.

WORK ENVIRONMENT:

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. The employee regularly works in an office environment, with occasional site visits to the Walpole Records Center.

The noise level in the work environment is a moderately quiet in an office setting.

November 2024

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: November 13, 2024
SUBJECT: FY25 and FY26 Non-Union Compensation and Amendment of Employment Contract of the Director of the Tunnel Redundancy Program

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COMMITTEE: Personnel and Compensation

__X__ VOTE
_____ INFORMATION

RECOMMENDATION:

That the Board of Directors take the following actions relative to the MWRA's FY25 and FY26 non-union compensation review:

> Authorize the Executive Director to implement a 3% across-the-board compensation adjustment for eligible non-union managers effective the first full pay period in January 2025 and a 2% across-the-board compensation adjustment for eligible non-union managers effective the first full pay period in FY26; and
>
> Approve a revision to the non-union salary ranges for FY25 and FY26 as presented in Attachment A and filed with the records of the meeting.

Further, that the Board of Directors authorize the Executive Director to implement a 3% adjustment effective the first full pay period in January 2025 and a 2% adjustment effective the first full pay period in FY26 of the salary of Kathleen M. Murtagh, Director of the Tunnel Redundancy Program, consistent with other non-union managers.

DISCUSSION:

Under this proposal, MWRA non-union managers will receive an adjustment of 3% in FY25, and 2% in FY26. Eligible personnel for the FY25 adjustment are current employees in a non-union manager role. The adjustment does not apply to the Executive Director with whom the Authority maintains an individual employment contract.

Kathleen M. Murtagh serves as the Director of the Tunnel Redundancy Program under a three-year employment agreement with the Authority that commenced in 2018. In June 2024, the Executive Director conducted his annual review of Ms. Murtagh's performance for FY24, and rated her performance as "Excellent." At the June 26, 2024 meeting, the Board of Directors adopted this performance rating and approved an amendment to Ms. Murtagh's contract, extending the term to June 3, 2027. (The Board approved previous amendments to the contract to extend the

term and adjust the annual salary.) The performance rating of "Excellent" entitles Ms. Murtagh to the amount of any Board-approved salary increase for non-union mangers, unless otherwise provided by the Board.

BUDGET/FISCAL IMPACT

These adjustments for non-union managers result in a total annual cost of approximately $168,477 for FY25 and, an additional $237,897 for FY2026.

ATTACHMENTS:

Attachment A: FY25 and FY26 Proposed Non-Union Salary Ranges

Attachment A

FY25 Proposed Non-Union Salary Ranges effective January 4, 2025

Grade	Minimum	Maximum
13	$101,399.27	$157,702.94
14	$114,107.10	$173,414.12
15	$128,454.62	$191,959.77
16	$144,499.79	$211,877.90
17	$162,629.53	$228,080.61
18	$154,265.68	$293,907.28
20	$151,235.06	$302,467.68

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FY26 Proposed Non-Union Salary Ranges effective June 28, 2025

Grade	Minimum	Maximum
13	$103,427.26	$160,856.99
14	$116,389.24	$176,882.40
15	$131,023.71	$195,798.96
16	$147,389.79	$216,115.46
17	$165,882.12	$232,642.22
18	$157,351.00	$299,785.42
20	$154,259.77	$308,517.04