



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

BOARD OF DIRECTORS' MEETING

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

Date: Wednesday, October 23, 2024

Time: 1:00pm

Location: Quabbin Visitors Center
100 Winsor Dam Rd., Belchertown, MA 01007

A photo ID will be required for entry.

The meeting will also be available via Webex. The Webex meeting link, event number and password to attend virtually are below:

Webex meeting link (registration required)

<https://mwra.webex.com/weblink/register/rdb4065fec4f48ad46f7eca16d38bc1d2>

Event number: 2333 414 9953 Password: 102324

REVISED AGENDA

I. APPROVAL OF MINUTES

II. REPORT OF THE CHAIR

III. REPORT OF THE EXECUTIVE DIRECTOR

- Dorchester Tunnel Incident and Response

IV. EXECUTIVE SESSION

- Approval of September 11, 2024 Executive Session Minutes

A. Real Estate

- Watershed Land Acquisition Approval
- Metropolitan Tunnel Redundancy Program Land Acquisition (verbal)

B. Litigation

- To Discuss Strategy with Respect to Litigation (verbal)

V. WATER POLICY AND OVERSIGHT

A. Contract Awards

- Metropolitan Water Tunnel Program, Final Design Engineer Services, WSP USA Inc., Contract 7556

B. Contract Amendments/Change Orders

- Section 101 Extension (Waltham): Baltazar Contractors, Inc., Contract 7457, Change Order 6
- Intermediate High Pipeline Improvements CP2 Rehabilitation of Sections 24 and 25: Albanese D&S, Contract 6956, Change Order 5

VI. WASTEWATER POLICY & OVERSIGHT**A. Information**

1. MWRA Industrial Waste Report #40
2. 2023 Outfall Monitoring Overview

B. Contract Amendments/Change Orders

1. Hayes Pump Station Rehabilitation: Waterline Industries Corporation, Contract 7375

VII. ADMINISTRATION, FINANCE & AUDIT**A. Information**

1. Delegated Authority Report – September 2024
2. FY2025 Financial Update and Summary through September 2024

B. Approvals

1. Amendment to the Eighty-Seventh Supplemental Bond Resolution
2. Delegation of Authority to Execute a Contract for the Purchase and Supply of Electricity for Interval Accounts

VIII. PERSONNEL & COMPENSATION**A. Approvals**

1. October 2024 PCR Amendments
2. Extension of Contract Employee, MIS

IX. CORRESPONDENCE TO THE BOARD**X. OTHER BUSINESS****XI. ADJOURNMENT**

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the Board of Directors

September 11, 2024

A meeting of the Massachusetts Water Resources Authority (“MWRA”) Board of Directors was held on September 11, 2024 at MWRA’s Administration Facility in Chelsea, and via remote participation.

Chair Tepper presided from the Chelsea Administration Facility. Board Members Flanagan, Peña, Taverna, Jack Walsh, Patrick Walsh and Wolowicz also participated from the Chelsea Administration Facility. Board Members Foti, Pappastergion, Swett and Vitale participated remotely.

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; Director of Tunnel Redundancy Kathleen Murtagh; Construction Director Martin McGowan; Senior Program Manager Paul Rullo; Chief Engineer Brian Kubaska; Program Manager Jeremy Hall; Senior Program Manager Milan Horbaczewski; MWRA Human Resources Director Wendy Chu; Director of Procurement Douglas Rice; MIS Director Paula Weadick; Senior Program Manager Michael O’Keefe; Deputy Finance Director/Treasurer Matthew Horan; Asset Management Analyst Michael Curtis; Chief of Staff Katie Ronan; Associate General Counsel Angela Atchue; and, Assistant Secretary Kristin MacDougall attended at MWRA’s Administration Facility in Chelsea.

Vandana Rao, EEA, and Matt Romero, MWRA Advisory Board, also attended at the Chelsea Administration Facility.

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 Board Members Foti, Pappastergion, Swett, and Vitale were participating remotely. The Chair announced that the meeting was being held at MWRA’s Chelsea Administration Facility 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 JULY 24 AND AUGUST 20, 2024 MINUTES

A motion was duly made and seconded to approve the minutes of the Board of Directors’ meeting of July 24 and August 20, 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:

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
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Tepper

Flanagan

Foti

Pappastergion

Peña

Swett

Taverna

Vitale

J. Walsh

P. Walsh

Wolowicz

(ref. I)

REPORT OF THE CHAIR

Chair Tepper duly moved to designate this September 11, 2024 meeting as the Annual Meeting, which, as provided in the Authority's By-Laws, will be deemed a special meeting of the Board for the purpose of the election of officers.

The Chair also moved to elect Andrew M. Pappastergion as Vice Chairman of the Board; to appoint Brian Peña as Secretary of the Board and Kristin MacDougall and Katherine Ronan as Assistant Secretaries; to appoint Matthew Horan as Treasurer; to appoint William Kibaja and Michael Cole as Assistant Treasurers; and, to ratify the appointments of Board members to standing Committees, as set forth in the September 11, 2024 Staff Summary presented and filed with the records of this meeting. New Committee Chairs will be appointed approximately every two years.

The motion was seconded.

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:

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
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Tepper

Flanagan

Foti

Pappastergion

Peña

Swett

Taverna

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
Vitale		
J. Walsh		
P. Walsh		
Wolowicz		

(ref. II.AS)

REPORT OF THE EXECUTIVE DIRECTOR

MWRA Executive Director Fred Laskey recognized that this meeting was taking place on the anniversary of September 11, 2001, and advised that the events of that day had prompted MWRA to take significant steps forward in its security practices. He explained that staff will present an update on water security during Executive Session, and that presentations on various security topics are planned for the upcoming months. He reported that staff remain vigilant and continue to invest in MWRA's security systems.

Next, Mr. Laskey reminded Board Members of a discussion about community water system interconnections that took place at the last Board meeting. He relayed that staff would distribute a map of community interconnections during today's meeting, and that the matter would be discussed further at a future meeting.

Mr. Laskey then noted that the MWRA Advisory Board field trip in August 2024 was a great success. He presented a group photo taken at the event, and congratulated Advisory Board Staff for a job well done.

Next, Mr. Laskey reported that the October 2024 Board meeting is planned to be held offsite at the Quabbin or Wachusett Reservoir, and that staff would contact Board Members to coordinate.

Finally, Mr. Laskey briefly discussed the ongoing water system expansion study for Quabbin-area communities. He reported that staff are planning a series of public meetings, including a meeting with remote access. (ref. III)

EXECUTIVE SESSION

Chair Tepper requested that the Board move into Executive Session to discuss Real Estate, Security 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 a watershed land acquisition, a security update and strategy, 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.

Documents used for this meeting and cited in these minutes, including meeting materials/staff summaries, presentations, and approved minutes, are posted on MWRA's website: <https://www.mwra.com/about-mwra/governance-management/board-directors/archive-agendas-and-minutes>

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:

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
Tepper		
Flanagan		
Foti		
Pappastergion		
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 1:09pm and adjourned at 1:57pm.

*** 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 an update on the

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Metropolitan Water Tunnel Program (MWTP) and requested Board approval for a proposed contract for Final Design Engineering Services with WSP USA, Inc. (“WSP”).

Ms. Murtagh presented a progress review of critical path tasks, including geotechnical investigations, land acquisitions, community agreements and TBM power. In addition, Ms. Murtagh provided an update on the field work that is nearly complete for the geotechnical support services contract, which includes deep rock borings (nearly two-thirds will be complete after this winter) and prepping about 20 boring locations to be completed during final design and the importance of this work.

Next, Ms. Murtagh reported on the recent submission of two access permit applications to MassDOT, and described how such are critical for the MWTP shaft sites. She explained that one permit is for the North tunnel and the other is for the South tunnel, and the detailed review that will follow with MassDOT and scheduling meetings to enable discussion and regular check-ins with MassDOT.

Ms. Murtagh provided an update on coordination with communities concerning the emergency and fire rescue response for the MWTP. She identified an upcoming meeting with the fire chiefs in Needham to discuss training, equipment and resources needed to prepare in the event of an emergency during the tunneling work. Similarly, she provided an update concerning communications with Eversource and the power supply to the shaft sites, as none of the shaft sites have sufficient power supply for the operations of the TBMs. She confirmed Eversource has designed and provided cost estimates for the work and is ready to meet the MWTP construction schedule. She relayed that the cost of the power supply is presently under the original budget; further, she noted that staff are working on an agreement with Eversource that will be brought to the Board for approval.

Ms. Murtagh then discussed the Final Design task, and noted that staff were proposing a Final Design Engineering Services (“FDE”) contract, with total duration of 180 months (15 years). She explained that the contract includes a five-year design phase, and a 10-year engineering services during construction (“ESDC”) phase. She reminded Board Members that MWRA staff had presented the FDE contract structure for Board approval in March (ref. W B.1/V A.1, March 13, 2024). She noted that this structure is comprised of an initial, five-year scope and award for the design phase, and a future amendment to the contract for the 10-year ESDC phase.

She explained that the proposals for the FDE contract included the firms’ overhead costs and proposed profits. She provided an overview of the FDE contract’s two-step procurement process, which included a request for qualifications (“RFQ”), followed by a request for proposals (“RFP”) for the shortlisted firms. She reported that MWRA received four statements of qualifications; that three firms were shortlisted; and, that all shortlisted firms had received a detailed scope of work. She added that all shortlisted firms submitted detailed proposals and

the evaluation criteria for the proposals was comprehensive. .

Secretary Tepper requested more information about the RFQ/RFP process. Ms. Murtagh explained that the RFQ included an outline of the scope of work. Secretary Tepper asked for further details on the proposed FDE contract's duration and scope. Ms. Murtagh explained that the FDE contract would be awarded for the full 180-month duration; that the scope of the contract's first five years would bring the MWTP Program to final design (i.e. up to bidding with stamped drawings by the engineer of record) and that the design team needs to be involved during construction. To provide construction administration services she explained that there will be an amendment to the contract to add scope for the contract's final 10 years for ESDC. She noted that it is a lower level of effort but it is critical for the FDE to remain involved.

Chair Tepper asked if there would be a circumstance under which the FDE would not want to be involved with completing ESDC. Ms. Murtagh explained that this would be an unlikely, and highly unusual scenario for a FDE to not continue with ESDC. Chair Tepper asked if the financial parameters for the entire 15-year contract are set now. Ms. Murtagh responded in the affirmative for the key financial parameters.

Board Member Taverna asked how the consultant engineer predicts the level of effort and the number of hours over 15 years, and if staff were confident in WSP's level of effort with respect to the contract's entire 15-year duration. Ms. Murtagh explained that the scope of work that was provided to the firms and upon which the firms based their pricing was for the initial 5-year design phase. She briefly described the categories and described the scope of work included in the over 300,000 hours of level of effort. Further, in response to Mr. Taverna's inquiry, Ms. Murtagh noted that WSP's proposal reflected a level of effort and pricing for the contract's initial, five-year design phase only. Mr. Taverna asked if the ESDC portion of the work would be added by contract amendment. Ms. Murtagh responded in the affirmative.

Chair Tepper further inquired if the key parameters of the future amendment for ESDC had already been set. Ms. Murtagh explained that the key financial parameters, the overhead rate and fee have been set, noting that those are the financial parameters that drive cost and that labor rates do not vary that much for the type of staff needed and goes into the overhead rate. Mr. Taverna asked if the labor rates will vary over time, over the 15 years. Ms. Murtagh responded in the affirmative and noted that there is an escalation factor.

Next, Ms. Murtagh presented a summary of the selection committee's proposal evaluation for the FDE contract, which included a detailed review of all three proposals; requests for clarification from all three proposers; interviews of each team; and, the use of established score and ranking criteria. She presented the selection committee's final scores and rankings for the three firms, noting that the committee had full confidence in the recommended team. She then summarized the three proposals received, including their proposed costs and levels of effort.

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She noted that higher costs appeared to correlate with higher proposed levels of effort, and that WSP submitted a proposal with the fewest assumptions while some other teams had some cost qualifying assumptions.

Ms. Murtagh then described the information that staff provided to all proposing firms, including the preliminary design report, the preliminary design drawings, the preliminary designer's cost estimate, and an independent cost estimate, as well as geotechnical data; MWTP Program information; and all Environmental Impact Report ("EIR") documents. Thereafter, she explained that MWRA has been working on this project for six years, and further acknowledged a lot of detail and work have been completed. She noted that some details regarding work already performed is settled and will not need to be revisited, but that the proposers do not necessarily know that at the proposal phase. Next, she reported as staff examined the proposals, it was apparent that proposers had priced for work that is already completed. Therefore, she noted efficiencies will be gained on such tasks as borings and coordination with Eversource. She explained that staff had identified where the costs for these tasks were reflected in the proposals, and where some efficiencies can be gained. She noted that the data obtained from these tasks would facilitate the Final Design work.

Next, Ms. Murtagh discussed the qualifications of the recommended firm, WSP. She reported that WSP had the best overall plan to meet the scope of work and program milestones; that the firm demonstrated the best approach to incorporating operations needs into the design; and, that the management team is fully present and integrated with MWRA's MWTP department. She noted that WSP planned to work full-time at MWRA's core storage facility in Needham. She added that WSP had provided a higher budgeted level of effort for key experts, including geologists; geotechnical engineers; tunnel and liner designers; and, an outstanding geology team. She also noted that WSP's proposal included the added role of an experienced chief engineer who has both technical and non-technical experience for a job of this complexity.

Board Member Wolowicz inquired about the items that proposers did not know about that are going to essentially reduce their price as they go on, and why they were not told of that ahead of time. Ms. Murtagh explained that staff provided all proposers with extensive information, including the preliminary design report and preliminary design drawings. She noted that the proposers were not given all the technical memos that the preliminary designer had worked on, as the decision-making was memorialized in the preliminary design report. Ms. Murtagh provided an example of such a decision already made.

Ms. Wolowicz explained her concern regarding getting money back for tasks the firm did not have to perform and finding other places to use it, and questioned why (unless the information was proprietary) it would not be beneficial to provide proposers everything done so far, so the proposers would know what they do not have to do; as it may not be a true proposal then in

her thinking. Board Member Foti agreed.

Ms. Murtagh explained that the preliminary design report was given to the proposers, and that it would not be typical to provide all the technical memos. Further, she confirmed the proposers received all the EIR documents. Ms. Murtagh explained that this is a professional services contract and that the FDE would only be compensated for services performed. In addition, she noted that staff are developing a series of workshops to brief the firm on the MWTP's progress to date; provide background as to matters that the firm does not need to invest time in, as well as areas where the firm will need to spend time. Further, she confirmed the scope of work is structured and staff who manage the budgets will know what funds are being spent on, and what funds will not be needed. She stressed that the contract structure is not a blank check for the FDE, and provided an example of how staff manage contracts with project controls that maximize the use of funds in the best interest of the MWTP Program.

Ms. Wolowicz expressed her trust in Ms. Murtagh and noted that she is concerned about information that MWRA had and did not provide. Mr. Foti agreed with Ms. Wolowicz and noted that he has full confidence in the MWTP Program team, that he had uncertainty with respect to staff continuity given the long duration of the contract. Ms. Murtagh acknowledged the length of the contract and explained that staff asked all proposers to describe their succession plans, and that the WSP team provided the strongest response and the response of the other teams was not quite as good.

Board Member Swett agreed with Ms. Wolowicz' comments, and advised that in his view providing more information in a process results in more accurate pricing; and that assumptions are not bad if such are accurate. He asked how MWRA set its specific MBE/WBE participation targets. Ms. Murtagh explained that the targets are set by MWRA's Affirmative Action and Compliance Unit ("AACU"). Mr. Swett further inquired as to the basis of the analysis for the specific percentage target. MWRA General Counsel Carolyn Francisco Murphy advised that staff would follow up to provide more information on how the precise MBE/WBE percentages are determined. Mr. Swett asked if part of the evaluation was looking at the diversity of the proposers' key personnel. Ms. Murtagh responded that while not directly, she is attuned to a diverse team and the WSP team has a number of women involved in the project; they have not met other team members and she could not comment on other parameters. Mr. Swett relayed that other state agencies are looking positively at diversity of key personnel as part of their evaluation criteria. Ms. Francisco Murphy noted MWRA's construction contracts include MBE/WBE workforce requirements, and that staff will confer with AACU on Mr. Swett's questions. Mr. Swett noted the positive impact on the submissions when the responding community is informed that it will be looked at.

Ms. Wolowicz asked Ms. Murtagh if she knew specifically what was not provided to proposers,

the approximate cost of what was not provided and why. Ms. Murtagh provided some examples of areas where staff saw costs above the Engineer's Estimate such as aerial surveys, utilities exploration, and early study phases of work. She explained that the project scope is structured and that staff will conduct workshops with the FDE to define the appropriate level of effort for these kinds of tasks, manage costs and be efficient. Ms. Wolowicz asked if any of this information was discussed during the interviews. Ms. Murtagh responded that it was not, and explained the interview process and that proposals had already been submitted.

Mr. Laskey advised that staff have worked on the project for six years and believe they have come up with a good contract. He acknowledged the Board's questions and suggested postponement until the next meeting so that the Board's questions could be answered.

Secretary Tepper agreed, and suggested that questions be provided in writing in advance of the next Board meeting.

A motion was duly made and seconded to postpone this agenda item.

A roll call vote was taken in which the members were recorded as follows:

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
Tepper		
Flanagan		
Foti		
Pappastergion		
Peña		
Swett		
Taverna		
Vitale		
J. Walsh		
P. Walsh		
Wolowicz		

(ref. V A.1)

CONTRACT AMENDMENTS/CHANGE ORDERS

Section 4 Walnut Street Bridge Pipe Restraint Replacement: R. Zoppo Corp., Contract 7483, Change Order 7

A motion was duly made and seconded to authorize the Executive Director, on behalf of the Authority, to approve Change Order 7 to Contract 7483, Section 4 Walnut Street Bridge Pipe Restraint Replacement, for an amount not-to-exceed \$200,000, increasing the contract from \$478,900 to \$678,900, and extending the contract term by 540 calendar days from August 9, 2023 to January 30, 2025.

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Further, a motion was duly made and seconded to authorize the Executive Director to approve additional change orders as may be needed to Contract 7483 in an amount not to exceed the aggregate of \$78,725 and 180 days in accordance with the Management Policies and Procedures of the Board of Directors.

Martin McGowan, MWRA Construction Director, explained that staff were requesting approval for a change order to MWRA Contract 7483, which expired over a year ago due to delays in coordination with the MBTA and the project's construction contractor, R. Zoppo Corp ("Zoppo").

Mr. McGowan presented the project site in Somerville, highlighting its proximity to Somerville High School, and to MBTA Green Line and Commuter Rail tracks. He described the Walnut Street Pipe Bridge's function as a support for a 48-inch water transmission main, and the purpose of the project, which is to replace the bridge's corroded and deteriorating restraint system. Mr. McGowan shared photographs including of the pipe bridge's current condition, of its badly deteriorating thrust restraints and the MBTA's Green Line catenary lines that are suspended over the pipe bridge. He advised that staff had planned for MWRA's pipe bridge project to be completed before this branch of the Green Line went into service in December 2022; however, because the catenary lines are now electrified, staff have been working closely with the MBTA to identify a plan to safely complete construction under the new conditions.

Mr. McGowan noted that the MBTA has recently made changes to their safety policies; that MWRA will adhere to these policies; and that staff have been working with the MBTA to develop solutions. He also discussed some options that were considered.

He then advised that MWRA, Zoppo and MBTA are now prepared to take the opportunity to conduct the Pipe Bridge during a 2-week Green Line shutdown in December 2024, which MBTA has scheduled for track upgrades. Finally, he requested Board approval for the proposed change order for added labor costs for off-shifts, shift differentials, and increases in prevailing wages; as well as additional flaggers and inspectors as required by MBTA.

Mr. Taverna asked if Zoppo had confirmed that it could complete the work within the 2-week window. Mr. McGowan responded in the affirmative and noted that Zoppo has experience working with MBTA. Mr. Taverna requested more details about the timeframe for the project. Mr. McGowan explained that the work is expected to take place December 7-20, 2024, and that staff are poised to begin project planning as soon as possible, pending Board approval.

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

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
Tepper		

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<u>Yes</u>	<u>No</u>	<u>Abstain</u>
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Flanagan		
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Foti		
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Pappastergion		
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Peña		
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Swett		
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Taverna		
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Vitale		
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J. Walsh		
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P. Walsh		
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Wolowicz		
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(ref. V B.1)

WASTEWATER POLICY AND OVERSIGHT

Contract Awards

Somerville Marginal CSO Facility New Pipe Connection: RJV Construction Corp., Contract 7985

A motion was duly made and seconded to approve the award of Contract 7985, Somerville Marginal CSO Facility New Pipe Connection to the lowest responsible and eligible bidder, RJV Construction Corp., and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of \$4,436,384 with a contract term of 625 calendar days from the Notice to Proceed.

Paul Rullo, MWRA Senior Program Manager, Engineering and Construction, discussed a proposed contract for a new pipe connection at the Somerville Marginal CSO Facility. He noted the number of outfalls that meet or materially meet MWRA's Long-Term CSO Control Plan, and advised that this project would reduce CSO at 2 locations where volume and activation goals have fallen short of the LTCP (MWR-205 and SOM007A/MWR-205A). He presented a map of the outfalls' locations in Somerville; their flow and treatment paths; and their discharge locations.

Mr. Rullo then provided an overview of the scope for the proposed contract, which includes the construction of a diversion vault between City of Somerville Combined Sewers and a MWRA Interceptor. He presented a map of these sewers' locations and a drawing of the proposed diversion vault. He briefly described how the new pipe connection vault would operate.

He next presented a summary of the contract's procurement process and bid results. He reported that MWRA received three bids that were consistent in range, and that the price of the recommended bidder, RJV Construction Corp., ("RJV") was 12.7% under the Engineer's Estimate. Finally, Mr. Rullo discussed RJV's qualifications, including a history of successful MWRA valve improvement and pipe installation projects.

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Mr. Laskey noted that this project is an example of MWRA's ongoing commitment to improving CSO control.

There was brief discussion with questions and answers about how the project's remotely actuated control valve would be operated; and how the project would maximize the conveyance of CSO flows to treatment and reduce treated CSO volumes.

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

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
Tepper		
Flanagan		
Foti		
Pappastergion		
Peña		
Swett		
Taverna		
Vitale		
J. Walsh		
P. Walsh		
Wolowicz		

(ref. VI A.1)

Contract Amendments/Change Orders

Braintree-Weymouth Intermediate Pump Station Transformer Replacement: Dagle Electrical Construction Corporation, Contract 7995, Change Order 1

A motion was duly made and seconded to authorize the Executive Director, on behalf of the Authority, to approve Change Order 1 to Contract 7995, Braintree-Weymouth Intermediate Pump Station Transformer Replacement with Dagle Electrical Construction Corporation, extending the contract term by 270 calendar days from November 2, 2024 to July 30, 2025, with no increase in contract amount.

Mr. McGowan presented the reasons for a proposed change order to Contract 7995, Braintree-Weymouth Pump Station Transformer Replacement, with Dagle Electrical Construction Corporation. He explained that staff were requesting a no-cost, 270 calendar day contract extension due to supply chain delays.

Mr. Jack Walsh asked for more details about the transformer that is currently in use. Mr. McGowan explained that the current transformer is a temporary, rental unit that was installed as an emergency replacement in 2013 when the prior transformer failed. He explained that the

new transformer to be installed under this contract will be made of stainless steel, and is expected to withstand the Braintree-Weymouth Pump Station's environmental conditions. There was brief, general discussion about the project's scope.

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

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
Tepper		
Flanagan		
Foti		
Pappastergion		
Peña		
Swett		
Taverna		
Vitale		
J. Walsh		
P. Walsh		
Wolowicz		

(ref. VI B.1)

CSO Post-Construction Monitoring and Performance Assessment AECOM Technical Services, Inc. Contract 7572, Amendment 5

A motion was duly made and seconded to authorize the Executive Director, on behalf of the Authority, to approve Amendment 5 to Contract 7572, CSO Post-Construction Monitoring and Performance Assessment, with AECOM Technical Services, Inc., increasing the contract amount by \$3,095,000, from \$7,142,705 to \$10,237,705 and extending the contract term by 1,608 calendar days, from April 8, 2025 to August 31, 2029.

Staff presented the reasons for a proposed amendment to a CSO Post-Construction Monitoring and Performance Assessment Contract with AECOM Technical Services, Inc.

Brian Kubaska, MWRA Chief Engineer, provided background on MWRA's ongoing CSO Control efforts, which are driven by Boston Harbor case court ordered milestones, and variances. He described tasks performed by AECOM in support of these efforts, including inspections, metering, hydraulic modeling and water quality assessments.

Next, Mr. Kubaska discussed the Final Performance Assessment Report that was submitted in December, 2021 as a requirement of the Boston Harbor federal court case. He noted that the Report identified 16 CSO outfalls that did not meet performance goals and discussed the three-year agreed upon extension of the court case and the supplemental report that is due in

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December 2024. He presented a map showing progress on the challenging outfalls to date and noted that the supplemental report will allow DEP and EPA to determine if MWRA has met the court-ordered obligations.

Mr. Kubaska presented the locations of the 16 open CSOs that discharge to variance waters. He briefly discussed the requirements of the prior variances including the deliverables such as the updated CSO control plan, an optimization analysis, and the request for an extension for the submission of the deliverables by MWRA and the communities, which ultimately required new variances. Mr. Kubaska also briefly discussed some of the requirements of the new variances and the CSO program efforts going forward including public participation and coordination requirements, the January 2027 Final Updated LTCP submission deadline, DEP/EPA guidelines and reporting requirements, annual CSO control report submittals, and feasibility analyses.

Next, Jeremy Hall, MWRA Program Manager, Engineering and Construction, discussed AECOM's record of excellent performance in support of the LTCP, which has allowed MWRA to meet regulatory deadlines. He advised that the proposed amendment to AECOM's contract will align with the timeline for required submittals under the new variance, allow AECOM to continue work on ongoing tasks; greatly expand the level of coordination to develop alternatives and affordability analyses; and, help to expand the CSO stakeholder engagement program.

Finally, Mr. Hall summarized the scope and costs of the proposed amendment, including the continuation of existing tasks; additional program management services; task order allowances; receiving water quality model for a 2050 Typical Year; and maintenance of a unified model that has been used for the assessment of programs and projects that will become the updated CSO control plan.

Secretary Tepper asked if AECOM intended to engage a subcontractor for community engagement, noting that in her view, these efforts are best performed by dedicated specialists. Mr. Hall explained that Somerville has worked with CBI, which has been assisting with the public engagement firm, and that contract has been extended by Somerville. Mr. Kubaska added that AECOM's public community engagement tasks are focused on participating in and preparing for public meetings.

Mr. Jack Walsh acknowledged the complexity of the project, noted that the proposed amendment was approximately 2.5 times the cost of AECOM's original contract, and asked if staff expected this to be the last amendment. Mr. Kubaska advised that at this point it should be the last amendment and that, although he could not promise that it would be the last amendment, it is structured to coincide with the end of the CSO variance period. He explained that there is expected to be a break between the completion of the final updated CSO control plan and the end of the variance, during which time the project team would respond to MEPA comments; potentially address a notice of project change; and, assess the best next steps with

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regard to the contract.

David Coppes, MWRA Chief Operating Officer, added that he expects that at the end of the next long term control plan process staff will have a number of recommended CSO projects that would be advertised separately for the designers. He noted that AECOM is currently assisting in identifying these projects and would have an opportunity to bid on them as would other consultants.

Mr. Swett asked how staff evaluate the MBE/WBE participation goals for AECOM's contract, noting relatively low participation goals, and encouraged MWRA staff to continue to seek opportunities to increase MBE/WBE participation. Mr. Kubaska acknowledged Mr. Swett's comment and advised that staff would provide more information at a later date.

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

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
Tepper		
Flanagan		
Foti		
Pappastergion		
Peña		
Swett		
Taverna		
Vitale		
J. Walsh		
P. Walsh		
Wolowicz		

(ref. VI B.2)

Siphon and Junction Structure Rehabilitation - Design and Engineering Services During Construction: Contract 6224, Amendment 1, Kleinfelder Northeast, Inc.

A motion was duly made and seconded to authorize the Executive Director, on behalf of the Authority, to approve Amendment 1 to Contract 6224, Siphon and Junction Structure Rehabilitation Design and Engineering Services During Construction, with Kleinfelder Northeast, Inc., increasing the contract amount by \$145,690.43, from \$2,854,552.34 to \$3,000,242.77, and extending the contract term by 36 months from October 1, 2024 to October 1, 2027.

Milan Horbaczewski, Senior Program Manager, Engineering and Construction, discussed a proposed amendment to a contract for siphon and juncture structure rehabilitation design and

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engineering services during construction with Kleinfelder Northeast, Inc. ("Contract 6224").

Mr. Horbaczewski presented a map of MWRA's sewer interceptors and the locations of 40 siphon and juncture structures that are in most need of repair, access improvements and flood protection. He described the functions of siphons, and noted that the siphon structures to be rehabilitated are located within 17 communities, and adjacent to rivers and wetlands.

Next, Mr. Horbaczewski explained that staff are requesting the Board to approve a 36-month time extension for Contract 6224, in order to obtain required permitting and easements needed for construction. He explained that the permitting process is taking longer than expected due to a large number of permitting entities and a high volume of meetings and site visits with local conservation commissions. He provided a brief progress update on easement acquisition.

Next, Mr. Horbaczewski noted that the proposed Amendment requests additional budget for project management and additional design services for pipe loading analysis. He explained that additional analysis is needed to ensure that future construction work does not harm existing sewers that lead up to the siphon structures. Finally, Mr. Horbaczewski advised that the siphon and juncture rehabilitation construction contract is expected to be awarded in the coming months.

Mr. Jack Walsh asked how the structures in most need for repair were identified. Mr. Horbaczewski explained that they were selected based on conditions assessments and that a goal of the project is to eliminate inflow at a number of the structures' locations, based on a 100-year flow plus 2.5 foot parameter. He added that some structures were assessed for rehabilitation based on interior or exterior structural integrity; while others were determined to need access improvements. He noted that Contract 6224 is part of an ongoing series of siphon and junction structure rehabilitation design projects.

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

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
Tepper		
Flanagan		
Foti		
Pappastergion		
Peña		
Swett		
Taverna		
Vitale		

Yes No Abstain

J. Walsh

P. Walsh

Wolowicz

(ref. VI B.3)

ADMINISTRATION, FINANCE AND AUDIT

Information

Delegated Authority Report – July and August 2024

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

With regards to the July, 2024 Item C-10: *Drug and Alcohol Testing and Compliance Services*, Board Member Vitale requested the name of MWRA's pre-employment drug and alcohol testing provider, and the contract cost. Wendy Chu, MWRA Human Resources Director, advised that OHS WorkCare has conducted pre-employment drug and alcohol testing for MWRA for the past few years, and that staff would forward information about the contract cost at a later date.

In reference to the July, 2024 Item P-1: *One Year Purchase Order Contract to Provide Commercial Driver's License Training for MWRA Employees*, Mr. Vitale asked where CDL training for MWRA staff takes place. Ms. Chu explained that trainings are conducted offsite, and that staff would provide more information about the locations as soon as possible.

With respect to the August, 2024 Item P-6: *Purchase Order for Three New Service Trucks*, Mr. Vitale asked if staff could have purchased electric service trucks. Douglas Rice, MWRA Director of Procurement, explained that electric vehicles are not currently available for the heavy duty uses required.

Regarding the July, 2024 Item P-1, Board Member Pappastergion requested clarification on the number of employees to receive CDL training under this contract. Ms. Chu explained that the contract includes 10 Class A training slots, and 10 Class B slots, for a total of 20 employees. Mr. Pappastergion remarked on the cost of the contract. Ms. Chu noted that the classes cover multiple sessions, and explained that recent changes to federal requirements for CDL licensing prevents MWRA from conducting this training in-house.

In reference to the July, 2024 Item P-5: *Purchase Order for 100 Hewlett Packard Probook Laptops – State Contract ITC73*, Mr. Jack Walsh commented that laptops are available on retail websites for a similar price, and asked if MWRA trades in old laptops. Paula Weadick, MWRA MIS Director, advised that there are no trade-ins associated with this purchase. She noted that this purchase order's cost per unit is fair for enterprise class laptops that can perform well using MWRA's existing IT systems. Mr. Jack Walsh asked if staff had considered using AMD processors. Ms. Weadick reported that staff have tried AMD in the past, but the processors

were not compatible with MWRA systems. Mr. Jack Walsh requested more information about MWRA's procedures for distributing the new laptops, and for disposing of the old ones. Ms. Weadick explained that MWRA surpluses old laptops in accordance with security protocols, and noted that the market value of the laptops to be replaced by new units is expected to be relatively low due to age. There was brief, general discussion about MWRA's laptop surplus process.

With respect to the July, 2024 Item P-1, Board Member Foti requested the cost of CDL training on a per-employee basis. Ms. Chu explained that the costs for CDL Class A and CDL Class B training are approximately \$10,000 and \$5,000-\$6,000 per employee respectively. She noted that a limited number of positions require CDL Class B licenses for career advancement, and that funding Class B training for other employees typically entails negotiations with staff members and their unions. Mr. Foti asked if staff had considered holding CDL training at MWRA facilities, and noted that he is aware of some CDL training companies that provide online training for a portion of the course, with the remainder of the training conducted in-house by a federally-approved staff member. Ms. Chu advised that staff would look into that option.

(Chair Tepper and Board Members Peña and Taverna left the room and returned to the meeting during the discussion.)

Hearing no further discussion or questions from the Board, Mr. Foti moved to the next Information item. (ref. VII A.1)

FY2024 Fourth Quarter Orange Notebook

Michael O'Keefe, MWRA Senior Program Manager, Planning, provided brief background on the Orange Notebook, and presented key highlights for the fourth quarter of FY2024. He reported that staffing levels remained below pre-pandemic levels; however, hiring rates have continued to increase. Finally, he advised that precipitation levels were approximately 30% higher than average in FY2024, with impacts throughout MWRA's operations.

Hearing no discussion or questions from the Board, Mr. Foti moved to the next Information item. (ref. VII A.2)

FY24 Year-End Financial Update and Summary

Thomas Durkin, MWRA Finance Director, reported that FY2024's budget ended well despite such challenges as inflation, which rose to approximately 6% in spring 2023, and high cost estimates for chemicals (+75%). He noted that chemicals costs had ultimately increased less than expected during FY2024. Mr. Durkin then reported that FY2024's wages and salaries were 10% under budget. He briefly described MWRA's budget cycle, and noted that a proposed defeasance from the FY2024 budget variance that is intended to benefit the FY2026 budget would be discussed in upcoming agenda item (ref. VII B.1).

Hearing no discussion or questions from the Board, Mr. Foti moved to the next Information item. (ref. VII A.3)

FY24 Year-End Capital Improvement Program Spending Report

Mr. Durkin discussed MWRA's Capital Improvement Program ("CIP") spending for FY2024. He explained that the CIP is aspirational and intended to document MWRA's priorities for capital spending. He reported that FY2024 CIP spending concluded well, at approximately 31% under budget, which is in alignment with previous fiscal years. Finally, Mr. Durkin briefly described ways that staff analyze and present CIP Spending Report data to provide insights.

Mr. Vitale asked if any arbitrage issues arose as a result of the FY2024 CIP's underspending variance. He also asked which firm performs MWRA's arbitrage calculations, and if MWRA compiles this data. Mr. Durkin reported that there had not been any arbitrage issues, and advised that borrowing at rates that are higher or lower than earnings requires special attention, and noted that MWRA contracts with PFM for arbitrage calculations.

Hearing no further discussion or questions from the Board, Mr. Foti moved to Approvals. (ref. VII A.4)

Approvals

Bond Defeasance of Future Debt Service

A motion was duly made and seconded to authorize the Executive Director or his designee, on behalf of the Authority, to enter into, execute and deliver all necessary agreements and other instruments and to take such other actions necessary to effectuate the redemption and defeasance of an aggregate principal amount of \$28,021,000 of outstanding MWRA senior bonds including to cause the escrow of cash and/or securities in an amount necessary to fund such redemption and defeasance, in order to reduce the debt service requirement by approximately \$31.1 million in the FY26 through FY28 timeframe.

Matthew Horan, MWRA Deputy Finance Director/Treasurer requested Board approval to use approximately \$29 million of FY2024's positive budget variance to defease some outstanding bonds, in order to provide debt service savings from FY2026 through FY2028. He explained that savings would be applied to manage FY2026-FY2027 water rates, and that the proposed defeasance would save approximately \$1.5 million in avoided interest costs. Finally, Mr. Horan noted that this proposed defeasance, combined with a defeasance executed in Spring 2024, would result in approximately \$5 million in interest expense savings total.

Mr. Taverna asked if it would be prudent to apply some of the funds to other programs, such as pensions, or Other Post-Employment Benefits (OPEB). Mr. Horan explained that in staff's view, the strategy of executing discrete bond defeasances to reduce future debt service is more beneficial than applying them to pensions or OPEB, which have a higher risk of loss over time.

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Mr. Vitale acknowledged Mr. Taverna's point, and requested more information about the yields, funding percentages, unfunded liabilities and final contributions made to the pension and OPEB trust funds as of June 30, 2024. He expressed confidence in the MWRA Finance team's prudent strategy with regard to bond defeasances for rates management, and asked staff if they could provide more information on their methods of analysis with regard to defeasances. Mr. Horan advised that the pension system was at 6.5% and 88.9% funded, and that the OPEB trust was at 6.7% and 45% funded through July 2024. He noted that the final contribution to the pension trust was approximately \$21 million for FY2025, including an extra \$5 million that was approved by the Board of Directors in 2024; and that the OPEB deposit for June 2024 was \$2.8 million, and \$5.2 million for 2025. Mr. Horan answered Mr. Vitale's question regarding staff's analysis for defeasance versus pension funding levels. He cited MWRA's annual actuarial valuation, and explained that in staff's view, the pension funding level does not need to be raised because the extra contribution made in FY2024 already provides some stability for the next three years. He added that staff's strategy with respect to pension funding and defeasances is intended to allow MWRA to maintain pension levels while continuing to manage rates.

Mr. Vitale then asked if staff expected any strategy changes for the pension and OPEB trusts in light of the changing economic climate. Mr. Horan explained that the OPEB trust is 100% funded by Commonwealth's PRIT fund, and that the MWRA Retirement Board is having ongoing discussions about potential investment vehicles. Mr. Vitale relayed a compliment for MWRA's Finance staff that he had recently received from an outside auditor.

Mr. Jack Walsh requested more information about the potential interest rate savings of the proposed defeasance. Mr. Horan explained that the savings on each bond would be 5% per year.

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

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
Tepper		
Flanagan		
Foti		
Pappastergion		
Peña		
Swett		
Taverna		
Vitale		
J. Walsh		

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
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P. Walsh

Wolowicz

(ref. VII B.1)

PERSONNEL AND COMPENSATIONApprovalsSeptember 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 September 2024 PCR Amendments.

Mr. Jack Walsh requested why the proposed PCR amendments included the creation of three new positions in the Human Resources department. Ms. Chu explained that these positions would provide needed support for a number of important programs and initiatives, and would promote career ladders through the addition of two entry-level positions.

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

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
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Tepper

Flanagan

Foti

Pappastergion

Peña

Swett

Taverna

Vitale

J. Walsh

P. Walsh

Wolowicz

(ref. VIII A.1)

Extension of Internship/Contract Employment, Internal Audit Division

A motion was duly made and seconded to approve the extension of employment for Mr. Jack Sicurella, Internal Audit Intern, for three months until November 29, 2024 (37.5 at the hours per current rate of \$22/hour.)

Ms. Chu invited Board members' questions on the proposed extension of employment for an

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Internal Audit intern.

Mr. Foti asked why this extension required Board approval. Ms. Chu explained that MWRA's Human Resources hiring policy requires Board approval for any employment contract over 12 months, and that the incumbent intern will have been employed at MWRA for over a year as of September 20, 2024. She added that the intern is currently working on projects that will not be complete by the end of the current contract. There was brief, general discussion about the potential to develop a new, full-time, entry-level Internal Audit position.

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

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
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Tepper

Flanagan

Foti

Pappastergion

Peña

Swett

Taverna

Vitale

J. Walsh

P. Walsh

Wolowicz

(ref. VIII A.2)

CORRESPONDENCE TO THE BOARD

There was not 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:

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
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Tepper

Flanagan

Foti

Pappastergion

Peña

Swett

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<u>Yes</u>	<u>No</u>	<u>Abstain</u>
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Taverna

Vitale

J. Walsh

P. Walsh

Wolowicz

(ref. X)

The meeting adjourned at 3:34pm.

Approved: October 23, 2024

Attest:

Brian Peña, SecretaryLIST OF DOCUMENTS AND EXHIBITS USED

- Draft Minutes of the July 24 and August 20, 2024 MWRA Board of Directors' Meeting (ref. I)
- September 11, 2024 Staff Summary – FY2025 Annual Meeting: Election and Appointment of MWRA Officers, and Committee Assignments (ref. II.A)
- September 11, 2024 Presentation – Report of the Executive Director (ref. III)
- September 11, 2024 Staff Summary and Presentation – Metropolitan Water Tunnel Program Final Design Engineering Services: WSP USA Inc., Contract 7556 (ref. V A.1)
- September 11, 2024 Staff Summary and Presentation – Section 4 Walnut Street Bridge Pipe Restraint Replacement: R. Zoppo Corp., Contract 7483, Change Order 7 (ref. V B.1)
- September 11, 2024 Staff Summary and Presentation – Somerville Marginal CSO Facility New Pipe Connection RJV Construction Corp. Contract 7985 (ref. VI A.1)
- September 11, 2024 Staff Summary and Presentation – Braintree-Weymouth Intermediate Pump Station Transformer Replacement Dagle Electrical Construction Corporation Contract 7995, Change Order 1 (ref. VI B.1)
- September 11, 2024 Staff Summary and Presentation – CSO Post-Construction Monitoring and Performance Assessment: AECOM Technical Services, Inc. Contract 7572, Amendment 5 (ref. VI B.2)
- September 11, 2024 Staff Summary and Presentation – Siphon and Junction Structure Rehabilitation Design and Engineering Services During Construction: Contract 6224, Amendment 1 Kleinfelder Northeast, Inc. (ref. VI B.3)
- September 11, 2024 Staff Summary – Delegated Authority Report – July & August 2024

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(ref. VII A.1)

- September 11, 2024 Staff Summary and Presentation – FY2024 Fourth Quarter Orange Notebook (ref VII A.2)
- September 11, 2024 Staff Summary – FY24 Year-End Financial Update and Summary (ref. VII A.3)
- September 11, 2024 Staff Summary – FY24 Year-End Capital Improvement Program Spending Report (ref. VII A.4)
- September 11, 2024 Staff Summary – Bond Defeasance of Future Debt Service (ref. VII B.1)
- September 11, 2024 Staff Summary – September 2024 PCR Amendments (ref. VIII A.1)
- September 11, 2024 Staff Summary – Extension of Internship/Contract Employment, Internal Audit Division (ref. VIII A.2)

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: October 23, 2024
SUBJECT: Metropolitan Water Tunnel Program
Final Design Engineering Services
Contract 7556
WSP USA Inc.



COMMITTEE: Water Policy and Oversight

____ INFORMATION


X VOTE



Michele S. Gillen

Director of Administration

Paul V. Savard, P.E., Director Design and Construction
Preparer/Title



Kathleen M. Murtagh, P.E.
Director, Tunnel Redundancy

This item was postponed at the September 11, 2024 Board meeting so that staff could provide answers to questions raised by the Board about the information provided to the proposers, the basis for minimum MBE/WBE targets, and whether diversity of personnel was evaluated as part of the proposal evaluation. This staff summary provides further information regarding these Board questions in italics below. Staff are returning to the Board this month to provide a short presentation that responds to the questions raised and seeks approval of this contract award.

RECOMMENDATION:

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.

DISCUSSION

In February 2017, the Board approved the preferred alternative that is construction of northern and southern deep rock water supply tunnels from the Hultman Aqueduct and MetroWest Water Supply Tunnel to the Weston Aqueduct Supply Main No. 3 (WASM 3) and to the Southern Spine water mains. These two tunnels and the related work of the Metropolitan Water Tunnel Program (Tunnel Program) will provide the needed redundancy for the existing Metropolitan Tunnel System (which consists of the City Tunnel, the City Tunnel Extension, and the Dorchester Tunnel). The Board also directed staff to proceed with preliminary design, geotechnical investigations, and Massachusetts Environmental Policy Act (MEPA) review of the project.

On May 27, 2020, the Board approved the award of the Tunnel Program Preliminary Design, Geotechnical Investigation and Environmental Impact Report contract (the Preliminary Design Contract). The Preliminary Design Contract, completed in January 2024, included an initial phase

of geotechnical explorations, the Environmental Impact Report process and the preliminary design. The Final Environmental Impact Report for the Tunnel Program was submitted to MEPA and the Secretary's Certificate was received on April 1, 2024.

Staff provided the Board with a comprehensive update on the Tunnel Program in March 2024, including identification of several critical path activities. An update on the progress made on these activities is presented in Attachment A.

Final Design Engineering Services Contract

On March 13, 2024, the Board authorized that proposals for Contract 7556 be received (including labor rates, maximum overhead, fee and level of effort) for Final Design Engineering Services (FDES), including development of the Basis of Design reports, performance of geotechnical investigations, final design development of two tunnel construction packages and three enabling works construction projects, along with project controls, risk management, quality management, cost estimating, and construction scheduling. The expected duration of these initial final design phase services is five years.

In addition, the Board approved the contract structure for Contract 7556, FDES for the Tunnel Program, where the cost for Engineering Services During Construction (ESDC) for the tunnel construction packages will be added by amendment(s) to the FDES Contract 7556. Given the complexity and scope of the Tunnel Program, the performance of the design services may be critical to determine the duration of each tunnel construction package, and the schedule and level of effort required for ESDC. The detailed scope of ESDC for the tunnel construction work will be developed by staff after the completion of the final design for each tunnel construction package. Staff will thereafter negotiate the cost for tunnel construction ESDC and seek authorization for such services from the Board of Directors, which, if approved, will be implemented through contract amendment(s) of the FDES Contract 7556. Key financial parameters (i.e., maximum overhead rate and percent fee) utilized for ESDC will be those that are submitted by the successful proposer and evaluated as part of this initial contract award. The expected duration of ESDC services is approximately ten years.

The selected FDES firm requires a multi-discipline design team with expertise in deep pressurized water tunnel design and construction, rock engineering, geotechnical engineering, water systems and hydraulics, mechanical systems design, site-civil works, permitting, risk management, construction, cost estimating and scheduling. The team must be efficiently managed to ensure time critical design submittals are aligned with the targeted Tunnel Program construction schedule. The FDES engineer will serve as the Engineer of Record for all Tunnel Program designs. This team will also support the Authority in outreach, land acquisitions, and memoranda of understanding with stakeholders.

Procurement Process

A two-step procurement process for FDES was utilized for this project. A Request for Qualifications (RFQ) was publicly advertised followed by a Request for Proposals (RFP) issued to those firms that were shortlisted after the RFQ phase.

A Selection Committee consisting of five voting members with support from eight non-voting members was formed to evaluate, score, and rank the proposals. Recognizing the importance of this project, the appointed members of the Selection Committee consisted of numerous senior

MWRA staff who understand the operational and critical needs of the water transmission system, the complexity of the design process and future construction, need for robust community outreach, importance of risk management, and overall fiscal responsibility.

The RFQ, which was issued on November 15, 2023, required firms to submit information on Qualifications/Key Personnel (35 points), Relevant Experience/Past Performance (35 points), and Capacity/ Organization and Management Approach (30 points). On December 15, 2023, four firms submitted statements of qualifications (SOQs) in response to the RFQ. The Selection Committee reviewed the SOQs, and shortlisted the following three firms: Jacobs Associates d/b/a Delve Underground (Delve); Mott MacDonald, LLC (Mott); and WSP USA, Inc. (WSP). Each of these firms presented a multi-discipline design team with the expertise and experience to undertake a project of this size and complexity.

The RFP, including a detailed scope of work, was issued to Delve, Mott, and WSP on April 26, 2024 and included the following criteria: Cost (20 points), Qualifications/Key Personnel (20 points), Technical Approach (20 points), Capacity/Organization and Management Approach (20 points), Relevant Experience/Past Performance (15 points), and Minority and Women-Owned Business Enterprise Participation (5 points) for a total maximum score of 100 points. A pre-proposal meeting was held on April 29, 2024 with multiple representatives from each of the three shortlisted teams participating.

In response to questions from the Board regarding information and materials provided to proposers, along with the detailed scope of work, the RFP included a significant amount of reference documents. Over 60 individual reference documents totaling nearly 20,000 pages of information was provided to all three shortlisted firms. This large amount of information was needed to allow the proposers to fully understand the current status of the Tunnel Program and requirements related to executing the scope of work. The proposers had nine weeks to review the information and develop their proposals. As is typical in procuring professional design service contracts, the selected firm will eventually receive additional information for use in executing the scope of work including electronic files, record drawings, and early phase Tunnel Program documents, none of which are required during the RFP stage.

Given the size and complexity of the Tunnel Program, a large, highly skilled, and well managed team is needed. In order to assess each team's qualifications and capacity to support the Authority, a large number of key personnel, along with minimum and preferred qualifications, were identified in the RFQ and RFP, including:

- Project Director
- Project Manager
- Deputy Project Manager (optional role)
- Design Manager (optional role)
- Contract Package Manager (optional role)
- Rock Tunnel & Shaft Engineer
- Geotechnical Engineer
- Project Geologist
- Tunnel Liner Designer
- Water System Engineer
- Permit Specialist
- Environmental Engineer

- QA/QC Manager
- Risk Management Lead
- Cost Estimator/Scheduler

*Ten additional Key Personnel, not listed above, were also required in the RFP.

On June 28, 2024, the three shortlisted firms submitted proposals. The following is a summary of the costs and level of effort for each proposer, as well as the staff's estimate:

Proposer	Proposed Cost (Loaded Labor <u>and</u> Direct Costs)	Proposed Level of Effort (Total Hours)
WSP	\$93,605,158	307,348
Mott	\$88,606,894 ¹	311,148
Delve	\$80,342,423	259,579
<i>Staff Estimate</i>	<i>\$77,800,000</i>	<i>222,051</i>

The Selection Committee met to review the proposals and to determine which proposers would be selected for an interview.

Based on preliminary scoring and discussion, and upon receipt of further clarifications from all proposers, all three teams were selected for interviews.

The Selection Committee sent interview presentation topics and questions seeking additional information to each of the three teams to focus the interview discussion. Interviews were held on August 5, August 8, and August 13, 2024. After completion of the interviews, the Selection Committee reconvened to discuss and rank the proposals based on the interviews and additional information received, including references for key personnel. All of the scores from the Selection Committee members were totaled to determine the first-ranked team. The following is a summary of scores and rankings for each team:

Proposer	Total Final Score	Ranking
WSP	431.85	1
Mott	383.00	2
Delve	341.55	3

The Selection Committee unanimously voted to recommend award of the contract to the first ranked firm, WSP.

The WSP team includes significant participation from its primary subconsultant Black & Veatch as well as Haley & Aldrich, Brierley Associates and 19 other subconsultants and subcontractors. The Selection Committee members agreed that WSP's team provides well-qualified personnel with extensive relevant experience in pressure water tunnel design, water systems engineering, geotechnical investigations, and tunnel design and construction. The Selection Committee members noted the following:

¹ Two required cost items were not included in the original proposal response that would increase the Proposed Cost by approximately \$2 million.

- Overall, the WSP team demonstrated a deep knowledge of the current Tunnel Program status and developed a thorough and comprehensive approach for the completion of critical items needed to advance the designs to construction;
- WSP, as the prime, demonstrated a clear approach to oversee and be accountable for all work of its team including that of its subconsultants;
- Both WSP and Black & Veatch are multi-disciplined firms with experience leading the final design of large complex tunnel programs. WSP's experience in relevant water, transit, and transportation tunnels along with Black & Veatch's specialization in water tunnel projects, brings a deep bench and understanding of the tasks needed to successfully deliver this project;
- The team is well integrated, with a cohesive set of skills and services. Each team member firm was carefully selected and assigned a role where they have the capacity and are able to provide value to the project;
- Highly qualified, full time Project Manager, full time Deputy Project Manager, and three local Contract Package Managers provide the appropriate level of leadership and management for this large, complex project;
- Highest level of participation from experienced technical experts who will be essential for accurate and timely design decisions;
- Project Manager, Deputy Project Manager, Field Manager, and Contract Package Managers will embed with the MWRA staff in Needham;
- Black & Veatch best demonstrated its strong understanding of the MWRA water system and the team's approach to integrate MWRA Operation's requirements into the water systems engineering elements and the tunnel design;
- Best overall geotechnical team that is versed in the complex Boston geology, well organized, adequately resourced, and includes the best use of qualified drilling subcontractors; and
- Only team that provides a Chief Engineer who will be involved throughout the full design phase to manage risks and ensure technical consistency and uniformity in the final design and construction documents.

The Mott team includes significant participation from its primary subconsultant Stantec as well as Haley & Aldrich, Brierley Associates, Green International Associates, and 12 subconsultants and subcontractors. The Selection Committee members agreed that Mott's team provides very well-qualified personnel, extensive relevant experience in pressure tunnel design, water systems engineering, geotechnical investigations, and tunnel design and construction. The Selection Committee members noted the following:

- Both Mott and Stantec are multi-disciplined firms with experience leading large complex tunnel programs and ability to provide required staff resources within the team;
- Highly qualified, full time and local Project Manager, full time Deputy Project Manager/Design Manager, and two Contract Package Managers are proposed, who would provide the appropriate level of leadership, controls, and management for the project;
- Stantec, the largest subconsultant on the team, has a long history with the MWRA water system;
- The geotechnical team was not perceived to be as well-resourced or experienced as the first ranked proposer and there was a concern that this could manifest at a critical stage of the project;
- There appeared to be duplication of effort provided by Mott and Stantec to address some scope items where one firm could address more efficiently; and

- The information in the proposal and presented in the interview conveyed the team did not have as clear an understanding of the project as compared to WSP.

The Delve team included GEI, Inc., TetraTech, Hazen & Sawyer, and Nitsch Engineering, and 12 additional subconsultants and subcontractors. The Delve team provided a set of qualified staff that demonstrated good experience with design of cast in place concrete lined pressure water tunnels. Several Delve team members are currently providing services for the Tunnel Program under the Geotechnical Support Services (GSS) Contract and are more familiar with the Tunnel Program. However, the team's Project Manager was only 50% committed to the project, no Deputy Project Manager was identified for support, the Design Manager was only 65% committed (primarily located on the west coast), and only one Contract Package Manager was provided at a 20% commitment. The level of participation of each of these key roles compared to the other proposers is not adequate for the work expected. In addition, the team confirmed the Project Geologist would be retiring in about two years, ahead of the completion of tunnel designs, and the proposed replacement is located on the west coast with no experience in complex Boston geology.

The WSP team provides the best value to the MWRA in that it provides overall the most competitive commercial terms for both the design phase and future ESDC phase services. Specifically, the WSP team provides:

- Lowest design phase indirect cost rate (ICR);
- Highest use of and lowest field ICR (for staff ~100% committed to the project for extended periods); and
- Lowest proposed ESDC phase ICRs

The WSP team proposed the highest percentage fee (11%), however, when combined with the low proposed ICR's, the resulting loaded labor rates are quite competitive. Additionally, WSP provided significantly fewer assumptions tied to its cost proposal providing the Authority with a higher level of cost certainty.

The Mott team provided competitive commercial terms including the use of field ICR for several staff; however, the design phase ICR and ESDC phase ICR were higher than those proposed by WSP. In addition, two required cost items were missing in the original proposal response that were included in the WSP and Delve proposals, and valued at approximately \$2 million.

The Delve team provided the highest design phase and ESDC phase ICR's and no field ICR resulting in the least competitive commercial terms.

The average cost proposal of the three teams is \$87,518,158. The Staff Estimate was 11.5% below the average. This difference is attributed to staff having more detailed knowledge of the work completed to develop the preliminary design and having included opportunities for efficiency that the three proposers did not account for in their cost proposal. In addition, WSP's cost proposal *reflected their experience, proposed team, technical approach and included added effort for project management, land acquisition support, geotechnical investigation management and construction cost estimating as compared to the Staff Estimate, which the Selection Committee considered an asset given the complexity of the project and identified critical path activities.*

In response to questions from the Board, compensation for professional services for this contract will be on a cost plus basis with a not to exceed amount. There is no initial lump sum or guaranteed minimum compensation. The selected team will only be paid for the actual level of effort necessary

to perform the work required. Once the selected team is on board, staff will be working closely with them to ensure only work that is required will be performed and that available efficiencies are realized. In addition, there are guardrails on budget expenditures associated with this contract including required approvals by staff before the consultant can begin work on various subtasks. This provides a strong level of budget control.

Staff met with representatives of WSP to confirm that they fully understood the scope of work, confirmed proposed Key Personnel availability, and that they can complete the services for the proposed cost and schedule. Based on those discussions and for the reasons stated above, staff recommends that Contract 7556 be awarded to WSP USA Inc.

BUDGET/FISCAL IMPACT:

The FY25 CIP includes \$117,841,612 for Contract 7556, which includes ESDC. The recommended contract award amount is \$93,605,158, which does not include ESDC as discussed above. ESDC may be added by amendment in the future.

MBE/WBE PARTICIPATION:

The MBE and WBE participation requirements for this contract were established at 7.18% and 5.44%, respectively. WSP has committed to 9% MBE and 7.2% WBE participation during the initial five year design phase services.

In response to questions from the Board regarding how the precise MBE/WBE percentages are calculated, an availability analysis was performed in 2002 by a consultant to calculate goals for Authority contracts. 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. Staff are preparing to update the availability analysis by undertaking a disparity study to ensure goals are appropriate and timely. In response to questions from the Board regarding whether the diversity of key personnel is considered in the proposal evaluation process, the selection committee does 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.

ATTACHMENT:

Attachment A - Update on the Metropolitan Water Tunnel Program

Attachment A - Update on the Metropolitan Water Tunnel Program

Since March 13, 2024, at which time a comprehensive update on the Tunnel Program was provided to the Board of Directors, several critical path activities have been advanced.

Geotechnical Investigations: Completion of deep rock test borings throughout the tunnel alignments remains on the critical path. However, leveraging the Geotechnical Support Services (GSS) contract to prioritize geotechnical data collection in areas that could have a material impact on the tunnel alignment, construction methods, construction duration, or costs has continued. Forty deep rock test borings were originally planned. Currently, 43 deep rock test borings have been completed with three more expected in early 2025, for a total of 46, all completed within the current GSS contract. The six additional borings were located in areas of data gaps and/or regions of complex geology, providing valuable information for early final design efforts. In addition, staff have advanced site access and permitting coordination for over 20 additional deep rock test boring locations to be drilled during the final design phase. With this initial coordination now essentially done, these locations can be drilled sooner than if the final designer were starting site access/permitting from scratch, which should help mitigate this portion of the critical path and potential weather related delays associated with this type of work.

Land Acquisition: Much of the land on which the Tunnel Program will be constructed is not currently owned by MWRA. Land associated with three launching shaft sites, three receiving shaft sites, one large connection shaft site, and three of the six connection shaft sites must be acquired. All three launching shaft sites, one receiving shaft site, and the large connection shaft site are under the care and control of Massachusetts Department of Transportation (MassDOT) with the right-of-way for the Hultman Aqueduct under the care and control of MWRA. In August 2024, staff completed and submitted MassDOT Access Permit applications for both the north and south tunnels. These permit applications follow numerous meetings and canvassing submittals so that MassDOT's Office of Real Estate and Asset Development (OREAD) could verify that there are no conflicting interests for the land considered based on input from other MassDOT departments and offices. The canvassing review was completed in 2022 when OREAD notified MWRA that further land canvass/disposition steps were not required, and that the next step would be for MWRA to submit Access Permit applications, including a request for exception to applicable elements of the MassDOT Utility Accommodation Policy (UAP). OREAD recommended the inclusion of an exception request due to the unusual nature and critical importance of completing the Tunnel Program.

The Access Permit applications formally request permission for MWRA to construct and maintain surface and underground utility facility installations within the MassDOT highway right-of-way. Each application includes the locations, description of work, anticipated schedule, site access, and future operations of the Tunnel Program within MassDOT right-of-way. Each application also presents preliminary design drawings showing the planned work, provides for future permit submissions to MassDOT as the final design for the Tunnel Program advances, and confirms that work will meet MassDOT design guidelines where required. The submittal of these Access Permit applications is an important and critical step in coordinating the land acquisition processes of the MWRA and MassDOT.

Community/Stakeholder Agreements: Memoranda of Understanding (MOUs) will be needed with each of the seven communities in which the tunnel alignment crosses. As indicated in March, staff are coordinating with local fire and emergency management entities from multiple communities to support the Tunnel Program with emergency response to the Tunnel Program sites.

This coordination will advance later this month with an in-person meeting between staff and several community fire and emergency response personnel to begin the detailed process of identifying what specialized training, necessary equipment, and coordination efforts by the various communities will be required to support the Tunnel Program.

In addition, staff have met with representatives from several communities to coordinate details associated with future connection pipeline construction and easements, which will be located in a limited number of community roadways. These pipelines include the drain line from the South Tunnel launching shaft sites to the Charles River in Needham, which is planned for construction as part of an early enabling contract.

Once the final design consultant is engaged, discussions on permitting and local regulations, water supply contingency, work hours, hauling hours and routes, traffic management, dust and noise control, blasting and vibration control, connections to community water systems, mitigations, and final site conditions (fencing, lighting, landscaping, etc.) will ramp up.

Tunnel Boring Machine Power Supply: High voltage power for the Tunnel Boring Machines (TBMs) is not readily available at the three launching shaft sites. Power supply is often a long lead work activity for tunnel projects and staff have been working with Eversource since 2021 to develop a plan to have high voltage power brought to each launching shaft site prior to the start of construction (targeted for 2028 and 2029). Eversource has completed a power supply assessment, routing study, and design of the new duct banks to the three launching shaft sites for both the north and south tunnel. This work will involve installation of approximately 1.7 miles of new and existing duct bank through Needham for the two South Tunnel launching shaft sites at Highland Avenue in Needham. Approximately 3.2 miles of new duct bank through Waltham, Newton, and Weston will be required for the North Tunnel launching shaft site at the Tandem Trailer site in Weston. It is anticipated that, subject to Board approval, MWRA and Eversource will enter into an agreement which will address the required schedule and compensation for this work.

Since March, staff have continued meeting with Eversource regularly to coordinate this work. Eversource has also been coordinating with MassDOT staff to install a portion of duct bank along Route 30 in Newton that is within the limits of an ongoing MassDOT project. Eversource has advanced the engineering, survey, and permitting work needed for the power supply for the South Tunnel to the Needham launching shaft sites. Eversource has also provided the cost estimate for them to design and construct this work. Eversource has indicated that they will be presenting the Needham Select Board a request for grant of location where new duct banks will be constructed in Needham roadways in September. The cost estimate from Eversource to supply power to the South Tunnel at the Needham launching shafts is approximately \$8M. Eversource provided a prorated estimate for providing power supply to the North Tunnel at the launching shaft in Weston (MassDOT Tandem Trailer lot area) of approximately \$12M. The current total estimate of approximately \$20M is approximately 45% lower than the \$36M estimated established during the preliminary design phase. The reduction in cost (as compared to the preliminary design estimate) is attributed, in part, to Eversource's ability to reuse some existing duct bank for Tunnel Program use, which reduces the amount of duct bank to be installed from the nearest substation. In addition, where duct bank is needed, Eversource plans to construct sufficient duct bank to accommodate the cable needed for the Tunnel Program as well as some additional cabling that could be used to improve the local power grid. Accordingly, the cost estimates provided to MWRA for TBM power supply take into account that some of the design and construction costs for this work are prorated between MWRA and Eversource and not fully attributed to the MWRA. Staff are currently working with Eversource to draft an agreement for this work for Board review and authorization.

STAFF SUMMARY


TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: October 23, 2024
SUBJECT: Section 101 Pipeline Extension (Waltham)
Baltazar Contractors, Inc.
Contract 7457, Change Order 6



COMMITTEE: Water Policy & Oversight

Martin E. McGowan, Director, Construction
Terrence Flynn, P.E., Construction Coordinator
Preparer/Title

 INFORMATION
 X VOTE


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

RECOMMENDATION:

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, 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.

DISCUSSION:

The Section 101 Pipeline Extension project 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 connection will provide a new redundant water supply to Waltham's Prospect Hill Service area from the Northern Extra High pressure zone and to MWRA's Lexington Street Pumping Station. The contract documents also include water, sewer and drain utility replacement work in the project area for the City of Waltham that needs to be completed concurrently with the MWRA work and prior to completion of construction of the City's new high school, which opened in August 2024. As reported in the March 13, 2024 Staff Summary for Change Order 4, while Waltham did not ultimately execute a Memorandum of Agreement with the Authority, the City agreed that it would reimburse the Authority for Waltham's work. Thus far, Waltham has paid \$1,931,826.95 to the Authority, which is the amount requested by MWRA to date for Waltham's completed portion of design and construction costs.

This Change Order consists of the following two items:

Rock Removal

Not to Exceed \$1,125,000

The Contractor is required to remove, handle, transport and dispose of all surplus soils and materials encountered during the work. The Contract includes 350 cubic yards of rock and boulder excavation for MWRA's portion of work under Bid Item 1 and 100 cubic yards for the City of Waltham's utility replacement under Bid Item 2. These quantities were based on the subsurface exploration program completed during the design phase. This program included geotechnical investigations conducted every 400 feet along the new pipe alignment to determine the soil characteristics and to provide an estimated quantity of rock that would be encountered. This included 18 borings and 12 probes. Rock was only encountered in four of the 18 borings and only at the bottom of the anticipated excavation.



Rock Removal

After commencement of the work, the Contractor probed along the alignment in approximately 25-foot increments to get a better estimate of the actual rock profile. This probing revealed that the location of the rock between several design phase probes and borings was much shallower, increasing the removal difficulty. Rock removal in these unanticipated locations was further complicated by numerous existing utilities adjacent to the trenches. The Contractor has been pre-drilling the ledge locations identified during probing in an attempt to remove the non-fractured rock as quickly as possible without damaging existing infrastructure. Even with the additional step of predrilling, rock removal has been time consuming.

To date, approximately 1,330 cubic yards of rock have been removed for MWRA's portion of work, or 980 cubic yards above the original contract quantity. Based on the Contractor's pre-drilling for rock investigations, an additional 1,270 cubic yards of rock is projected for the remaining MWRA work. Given the amount of rock already removed and the estimated remaining rock, staff anticipate that an additional 2,250 cubic yards is needed for completion of the MWRA work. A unit price of \$350 per cubic yard is included in the approved Contract Schedule of Values for both MWRA and Waltham rock and boulder excavation. The Contractor agreed to hold the original unit price in Bid Item 2 for the additional rock encountered while installing Waltham's utilities. This rock quantity increase was included in Change Order 5. However, given the significant quantity overrun for MWRA's portion of work, an increase in the contract unit price is warranted for the substantial increase in quantities. Subject to Board approval, the Contractor and staff have negotiated a revised unit cost of \$500 per cubic yard for the drilling, removal, transportation and disposal costs for the additional quantity of rock based on actual production rates. As a result of this quantity overrun, the Contractor must remove, handle, transport and

dispose an additional 2,250 cubic yards of rock and boulder excavation at a unit price of \$500 per cubic yard under Bid Item 1.

This item was identified by MWRA staff as an unforeseen condition. MWRA staff, the Consultant, and the Contractor have agreed to an amount not to exceed \$1,125,000. The Contractor proceeded with this work in order to continue performance of the remainder of the contract work.

Transfer Additional Large Diameter Water Services

Not to Exceed \$525,000

The Contractor is required to transfer all of the City of Waltham's water services and side street connections along Lexington Street from an existing eight-inch water main to an existing 16-inch water main north of Lake Street. The City will be abandoning this segment of its existing eight-inch water main since the Authority's new 36-inch water main will be installed in this alignment.

After commencement of the contract, it was determined that as many as 11 large diameter water services requiring transfer were not identified on the City's latest record drawings nor were they shown on the contract drawings. These additional large diameter water services supply shopping centers, small businesses, restaurants and condominium developments along Lexington Street. The Designer used the record drawings provided by the City during design and these did not show several service connections to the older eight-inch line. The Designer concluded that the service connections on this section of roadway had been transferred to the newer 16-inch water main. As a result, these service connections were not included in the contract.



Large Diameter Water Service Pipes

To complete the transfer of services from the City's eight-inch to 16-inch water main, the Contractor was required to test pit each connection to confirm its size, location and identify adjacent utilities as well as the presence of ledge. Each service connection is unique depending on what is identified during these test pits. All additional water services require cutting in a new tee on the main, typically 16-inch by six-inch, with new piping and thrust restraints. In some

cases, new isolation valves are needed when existing valves don't exist or do not provide a tight shutoff. To reduce the impact to businesses and residences, many of these transfers need to be completed at night when demands are low.

The Contractor has completed six additional large diameter water services with another two in progress. Based on input from the City, the Contractor still needs to investigate three additional large services north of Trapelo Road. Given the uncertainty of the existing conditions and the variability of each connection, this work is being tracked on a time and materials basis. The Contractor will be compensated for the actual costs per the terms of the contract to complete the transfer of up to eleven large diameter water services.

This item was identified by MWRA staff as an unforeseen condition. MWRA staff, the Consultant, and the Contractor have agreed to an amount not-to-exceed \$525,000. The Contractor proceeded with this work in order to continue performance of the remainder of the contract work.

CONTRACT SUMMARY:

	AMOUNT	TIME	DATED
Original Contract:	\$31,900,000.00	635 Days	07/12/22
CHANGE ORDERS:			
Change Order 1*	\$500,000.00	0 Days	06/28/23
Change Order 2*	\$126,454.82	0 Days	12/08/23
Change Order 3*	\$209,522.07	0 Days	02/07/24
Change Order 4	\$500,000.00	540 Days	03/25/24
Change Order 5*	\$995,759.46	0 Days	08/22/24
Change Order 6	<u>\$1,650,000.00</u>	<u>0 Days</u>	Pending
Total Change Orders:	\$3,981,736.35	540 Days	
Adjusted Contract:	\$35,881,736.35	1,175 Days	

*Approved under delegated authority

If Change Order 6 is approved, the cumulative value of all change orders to this contract will be \$3,981,736.35 or 12.5% of the original contract amount. Work on this contract is approximately 72% complete.

BUDGET/FISCAL IMPACT:

The FY25 CIP includes \$29,438,596 for Contract 7457. Including this change order for \$1,650,000, the adjusted subphase total will be \$35,881,736.35, or \$6,443,140.35 over the CIP amount. This amount will be absorbed within the five-year CIP spending cap. In addition, the CIP includes a credit for costs associated with the water, sewer and drain utility replacement work of \$4,347,381, which will be reimbursed to MWRA by the City of Waltham.

MBE/WBE PARTICIPATION:

The MBE and WBE participation requirements for this contract were established at 7.24% and 3.6%, respectively. The Contractor will be notified that these requirements are still expected to be met.

STAFF SUMMARY


TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: October 23, 2024
SUBJECT: Intermediate High Pipeline Improvements, CP2,
Rehabilitation of Sections 24 and 25 Water Mains
Albanese D&S, Inc.
Contract 6956, Change Order 5



COMMITTEE: Water Policy & Oversight

Martin E. McGowan, Director, Construction
Alireza Kowsari, Construction Coordinator
Preparer/Title

 INFORMATION
 X VOTE



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

RECOMMENDATION:

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, 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.

DISCUSSION:

Contract 6956 includes replacement and hydraulic pipe size increase from 16 to 20 inches of 5,900 linear feet for Section 25 and the cleaning and lining rehabilitation of 3,300 linear feet of Section 24, along with replacement of revenue Meters 2 and 40 (both serving Watertown). The majority of this work is located in Watertown with minor work in Newton at the crossing of the Charles River. This project also reroutes Section 25 from Common Street in Watertown to Bellevue Road, Russell Avenue and extending along Mount Auburn Street.

This Change Order

Change Order 5 consists of the following two items:

Soil Overrun

Not to Exceed \$522,455.20

The Contractor is required to remove, handle, transport and dispose of all surplus soil. The contract documents include estimated quantities for five different classifications of excavated soil surplus.

The five classifications are as follows:

Group IA:	Less than MCP RCS-1 and MassDEP Similar Soils
Group IB:	Less than MCP RCS-1 and Greater than Similar Soils
Group IIA:	Unlined Landfill
Group IIB:	Lined Landfill
Group III:	Out-of-State Disposal Facility

The Contractor performed some pre-characterization of soils in situ in advance of the work, then segregated and stockpiled all surplus soils and tested them for determination of the appropriate classification for disposal. To date, soil classification Groups IA and III have had significant quantity overruns of the estimated quantities included in the contract and soil classification Group IIA is also projected to have an overrun. The remaining two classifications, Groups IB and IIB, are projected to have underruns in the contract quantities. The contract documents require the Contractor to include a unit price for each classification of material in the Schedule of Values and if the actual quantity of any class of material varies from the assumed quantity, the contract price shall be adjusted in accordance with the terms of the contract. The quantity underruns will be captured in the final balancing change order at the completion of the work for a credit to the contract.



Loading soil for transport to disposal facility

The Contract included an estimated quantity of 4,860 tons for removal, handling, transportation and disposal of Group IA excavated materials. The actual quantity of Group IA material removed to date is 8,500 tons, or 3,640 tons over the original contract estimated quantity. With the work remaining on Section 25, it is anticipated that removal of an additional 4,750 tons will be necessary to complete the project; totaling a contract exceedance of 8,390 tons of Group IA excavated soils. The Contractor carried a unit price of \$22 per ton in its Schedule of Values for the Contract specified estimate of 4,860 tons; however, due to the significant additional quantities encountered the unit price increased to \$28.73 per ton for the extra 8,390 tons. Therefore, this line item should be increased by 8,390 tons at a unit price of \$28.73 per ton, for a total not-to-exceed \$241,044.70.

The Contract included an estimated quantity of 7,780 tons for removal, handling, transportation and disposal of Group IIA excavated materials. The actual quantity of Group IIA material removed to date is 6,032 tons and it is anticipated that an additional 2,998 tons of Group IIA excavated material will be necessary to complete the project; totaling a contract exceedance of 1,250 tons of Group IIA excavated material. The Contractor carried a unit price of \$68 per ton in its Schedule of Values for the original estimated quantity and given that the projected quantity overrun is small, the Contractor has agreed to hold its original unit price for the additional 1,250 tons. Therefore, this line item should be increased by 1,250 tons at a unit price of \$68 per ton, for a total not-to-exceed \$85,000.

Finally, the Contract included an estimated quantity of 1,950 tons for removal, handling, transportation and disposal of Group III excavated materials. The actual quantity of Group III material removed to date is 3,303 tons, or 1,353 tons over the original contract estimated quantity. With the work remaining on Section 25, it is anticipated that removal of an additional 697 tons will be necessary to complete the project; totaling a contract exceedance of 2,050 tons of Group III excavated soils. The Contractor carried a unit price of \$85 per ton in its Schedule of Values for the Contract specified estimate of 1,950 tons; however, due to the significant additional quantities encountered, the unit price increased to \$95.81 per ton for the extra 2,050 tons. Therefore, this line item should be increased by 2,050 tons at a unit price of \$95.81 per ton, for a total not-to-exceed \$196,410.50.

This item was identified by MWRA staff as an unforeseen condition. MWRA staff, the Consultant, and the Contractor have agreed to a not-to-exceed amount of \$522,455.20 for this work. The Contractor proceeded with this work in order to continue performance of the remainder of the contract work.

Drain and Sewer on Common Street

\$245,221.27

The contract documents require the replacement of 235 linear feet of drain pipe near Grenville Road in Watertown. During local water main work on Bellevue Road at Common Street, the Contractor encountered an unmarked 15-inch vitrified clay pipe drain on Common Street. The contract drawings and City of Watertown records indicate the drain pipe along the curb line of Common Street; however, the unmarked drain was actually found to be in the middle of Common Street. A televised inspection of the drain line revealed that the 15-inch vitrified clay drain runs along Common Street from Grenville Road to Bellevue Road as a single run without any intermediate drain manholes.



Cured-In-Place-Pipe Liner for Eight-inch Sewer on Common Street

Due to the close proximity of the clay drain pipe to the proposed 20-inch water main installation, it was determined that the clay drain could not be adequately protected and supported during excavation for the new water main. As a result, an additional 340 linear feet of existing 15-inch clay drain pipe must be removed and replaced with 16-inch ductile iron pipe. To assist in alignment of the drain and to shorten the length between the drain's manholes, the Contractor will relocate a proposed drain manhole.

During investigation into the drain location, the Contractor also discovered the existing sewer main on Common Street is an eight-inch clay pipe and not a cast iron pipe as identified on the contract drawings. The clay sewer and clay drain pipes are in close proximity to each other and at similar elevations. Like the clay drain pipe, the clay sewer pipe could not be adequately protected and supported during excavation for the new water main. As a result, it was necessary to install a cured-in-place pipe liner in the sewer main to protect the utility prior to installing the drain replacement and the 20-inch water installations. The Designer incorporated information on the exiting drain and sewer lines from the City's record drawings that did not identify the correct location and material of this drain line or the correct material of the sewer line.

This item was identified by MWRA staff as an unforeseen condition. MWRA staff, the Consultant, and the Contractor have agreed to a lump sum amount of \$245,221.27 for this work. The Contractor proceeded with this work in order to continue performance of the remainder of the contract work.

CONTRACT SUMMARY:

	Amount	Time	Dated
Original Contract:	\$18,673,000.00	912 Days	07/20/23
CHANGE ORDERS			
Change Order 1*	\$15,300.58	0 Days	05/15/24
Change Order 2*	\$24,248.68	0 Days	07/17/24
Change Order 3*	\$879,438.26	0 Days	08/15/24
Change Order 4*	\$23,667.63	0 Days	08/26/24
Change Order 5	<u>\$767,676.47</u>	<u>0 Days</u>	Pending
Total Change Orders:	\$1,710,331.62	0 Days	
Adjusted Contract:	\$20,383,331.62	912 Days	

*Approved under delegated authority

If Change Order 5 is approved, the cumulative value of all change orders will be \$1,710,331.62 or 9.2% of the original contract. Work on this contract is 66% complete.

BUDGET/FISCAL IMPACTS:

The FY25 CIP includes \$20,042,075 of which \$19,246,873 is for Contract 6956 and \$795,202 is for the pre-purchase Contract 6956A. Including this change order for \$767,676.47, the adjusted contract total for Contract 6956 will be \$20,383,331.62 or \$1,136,438.62 over the amount in the CIP. This difference will be absorbed in the five-year CIP spending cap.

MBE/WBE PARTICIPATION:

The MBE and WBE participation requirements for this project were established at 7.24% and 3.6%, respectively. The Contractor has been notified that these requirements are still expected to be met.

STAFF SUMMARY


TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: October 23, 2024
SUBJECT: MWRA Industrial Waste Report #40: Industrial Pretreatment Program
Annual Report to EPA for FY24



COMMITTEE: Wastewater Policy & Oversight

 X INFORMATION
 VOTE

Rebecca Weidman, Deputy Chief Operating Officer
Matthew Dam, Director, TRAC
Preparer/Title


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

RECOMMENDATION:

For information only

DISCUSSION:

MWRA's Toxic Reduction and Control (TRAC) Department operates the Industrial Pretreatment Program to control the level of toxic substances discharged into the sanitary sewer system from commercial and industrial sources. Through permits, inspections, sampling, and enforcement the program helps to keep excessive levels of toxics out of the sanitary sewer system to: (a) protect worker health and safety; (b) protect municipal and MWRA infrastructure; (c) prevent interference with the operation of the Deer Island and Clinton Wastewater Treatment Plants; (d) prevent the pass-through of pollutants into receiving waters; and (e) enable MWRA to beneficially reuse its residuals for the production of fertilizer.



Figure 1: Annual Significant Industrial User Inspection (large amalgam separator system)

MWRA is required by its National Pollutant Discharge Elimination System (NPDES) Permits and U.S. EPA regulations (40 CFR 403.12(i)) to submit an annual report to the EPA and MassDEP that describes the activities and accomplishments of MWRA's Industrial Pretreatment Program. Staff will submit the FY24 Annual Report (Industrial Waste Report #40) to EPA and MassDEP on or before October 31, 2024, which is the required submittal deadline.

Staff estimate that approximately 3% of the total flow to the treatment plants comes from permitted sewer user facilities, but this flow represents a significantly higher proportion of toxics discharged to the system. TRAC currently oversees approximately 2,250 permitted sewer users. There were 180 facilities that met MWRA's definition of Significant Industrial User (SIU) during FY24. SIUs require substantial oversight due to the nature of the

pollutants they discharge and/or the volume of their flows. Some of the highlights included in the report are described in this summary.

FY24 Accomplishments

Amendments to MWRA Regulations for Sewer Use (360 CMR 10.000)

In FY24, TRAC amended MWRA's Regulations for Sewer Use (360 CMR 10.000). Changes to the regulations incorporated requirements and recommendations from a 2021 EPA audit; increases to implementation charges and annual charges paid by permit holders by 3% annually in FY25 through FY29; and correction of minor typographical errors and revisions to unclear language. These changes underwent a public comment period and public hearing process, and were approved by the MWRA Board of Directors prior to being published in the Code of Massachusetts Regulations on July 19, 2024.

PFAS Updates

TRAC updated the Sewer Use Discharge Permit applications to include the requirement for industries to test for Per- and Polyfluoroalkyl substances (PFAS) when submitting a permit application. This data will help to provide a better picture of industrial PFAS sources by industry type. In addition to the industrial data, TRAC collected PFAS samples throughout the collection system. This data will allow for a comprehensive local discharge limits review and TRAC is exploring the potential for a PFAS limit as part of the upcoming review.

Cross-Media Reporting Regulation Compliance

In accordance with EPA's Cross-Media Reporting Regulation (CROMERR), in FY23, TRAC successfully registered all laboratories submitting wastewater sample results on behalf of TRAC permitted industrial users with an EPA Shared CROMERR Services user account. This made all data received in PIMS (MWRA's pretreatment information management system) CROMERR compliant. In FY24, EPA approved the electronic receipt of self-monitoring data, making MWRA one of the first programs in the country to meet the CROMERR regulatory requirement.

TRAC Reorganization

In FY24, TRAC completed a small reorganization. The reorganization addressed necessary succession planning related to the expected retirement of key TRAC personnel. This redistribution of personnel will better utilize existing resources by providing much needed cross-functionality and redundancy within the construction permitting group.

Significant Industrial Users

A SIU is defined by EPA regulations and includes those sewer users subject to federal categorical standards, permitted users with flows equal to or above 25,000 gallons per day, or those users that MWRA determines have a reasonable potential to violate MWRA's regulations. There were 180 industries that met the definition of SIU at some point during FY24. At the end of FY24, there were 177 SIUs regulated by MWRA. The number of SIUs can vary during the year as a result of companies going out of business, a change in their pretreatment processes, or a new company being added. TRAC met EPA's requirements for inspections and sampling in FY24, inspecting all

of the 180 SIUs and sampling 156 SIUs. In FY24, 24 SIUs were not sampled for the following reasons: 1) five SIUs did not discharge during the year; and 2) 19 SIUs hold non-discharging SIU permits and, therefore, cannot be sampled by MWRA. Pursuant to MWRA's Deer Island NPDES permit, EPA requires TRAC to issue 90% of MWRA's SIU permits within 120 days of the industries' current permit expiration dates, or MWRA's receipt of a Sewer Use Discharge Permit Application, whichever is later, and 100% within 180 days. TRAC issued or renewed 86 permits to SIUs during FY24. Of significance, 81 (or 94%) of those SIU permits were issued within 120 days of the permit expiration date or receipt date of the permit application. And, five of the SIU permits were issued within 180 days of the permit expiration date or receipt date of the permit application. TRAC achieved 100% issuance compliance for all 86 permits within the prescribed timeframe.

The Clinton Medium Wastewater Treatment Facilities General NPDES permit in effect during FY24 requires staff to issue all permits in the Clinton Sewer Service Area within 90 days of their application received date or previous expiration date, whichever is later. Two permits were issued to industries in the Clinton area, including one permit that was issued outside of the 90-day timeframe due to late payment of permit fees by the permittee.

Inspections and Monitoring Programs

Staff are responsible for permitting, inspecting, and monitoring a variety of other types of facilities to minimize the discharge of toxics to the sewer and assist other MWRA programs. In FY24, staff conducted 1,148 industrial/commercial facility inspections of other regulated industries, 118 inspections associated with the septage program, including inspections of haulers and septage receiving sites, and 403 inspections of oil/water separators. There are ten septage receiving sites and more than 4,000 gas/oil separators within MWRA's service area.



Figure 2: Annual Inspection of a landfill

TRAC's monitoring staff conducted 1,463 sampling events to characterize wastewater flow from SIU and non-SIU permitted facilities. In addition, TRAC's monitoring staff conducted an additional 1,543 monitoring events to support MWRA's NPDES permits, MWRA's local discharge limits program, other MWRA projects, and to evaluate discharges to the sewer in response to emergencies.



Figure 3: Monitoring of a Significant Industrial User

TRAC continues to implement strategies to deal with emerging contaminants such as PFAS. In FY24 TRAC's monitoring staff conducted a total of 58 PFAS sampling events at industrial users' facilities, 48 sampling events for local discharge limits to better understand where PFAS are coming into the collection system and seven sampling events for NPDES permit compliance.

Enforcement Program

This year, the total number of SIUs in Significant Noncompliance¹ at some point during the year was 29, which is an increase from the 28 SIUs in FY23. In the last quarter of FY24, only 10 SIUs were in Significant Noncompliance. MWRA is planning to host SIU meetings during the spring of 2025. SIU meetings provide an opportunity to review and reinforce methods for maintaining compliance.

In FY24, TRAC issued 230 Notices of Violations to industrial and commercial facilities, compared to 201 in FY23. A total of 67 other higher-level enforcement actions were issued in FY24 in response to a variety of persistent discharge and reporting violations, down from 70 higher-level enforcement actions in FY23. In FY24, TRAC identified 17 gas/oil separators requiring trap warning letters due to identified issues with maintenance or accessibility, compared to 71 in FY23.

TRAC assessed a total of \$70,100 in penalties and collected a total of \$130,100 in penalties in FY24 against permitted sewer users, compared to \$100,000 in penalties assessed and collected in FY23. The amount of penalties assessed and collected can vary significantly from year to year as a result of the timing of the penalty issuance, assessment of the penalty, resolution of any administrative appeal, and collection.

Program Cost Recovery

MWRA's Incentive and Other Charges Program continues to recover a substantial portion of MWRA's costs of inspecting, monitoring and permitting industrial sewer users. The total adjusted amount billed under the program in FY24 was \$2,896,431, an increase from \$2,802,082 in FY23. As of September 2024, collections for FY24 bills were at \$2,991,000 (compared to \$2,826,930 in FY23); an approximate 100% recovery of the adjusted amount invoiced. The additional revenue is the result of payment of interest, payment of outstanding permitting and monitoring charges, and new industries opening in the service area.

BUDGET/FISCAL IMPACTS:

In FY24, the TRAC Department recovered \$2,991,000 or 57.5% of the Department's actual Current Expense Budget (CEB) spending of \$5,206,000 through Permit Charges. FY24 revenue of \$3,121,000, which includes penalties collected, was an increase of \$294,000 over FY23. This year-over-year change is driven by a 3.0% increase to the permitting and monitoring charges. The increase in percent recovered of the Department's actual CEB spending is due to being 6.2% below budget in personnel costs. In FY25, permitting and monitoring charges will increase by another 3.0% in accordance with the most recently promulgated TRAC regulations.

¹MWRA is required to annually update EPA regarding SIUs that meet EPA's definition of Significant Noncompliance. Each industrial user is evaluated for Significant Noncompliance four times during the year. MWRA evaluates each SIU based on discharge and reporting requirements.

STAFF SUMMARY


TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: October 23, 2024
SUBJECT: 2023 Deer Island Outfall Monitoring Overview



COMMITTEE: Wastewater Policy & Oversight

 X INFORMATION
 VOTE

Rebecca Weidman, Deputy Chief Operating Officer
David Wu, Director, Environmental Quality
Jennifer Rogers, Project Manager, Environmental Quality
Preparer/Title


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

RECOMMENDATION:

For information only.

DISCUSSION:

MWRA monitors the Deer Island Treatment Plant effluent, as well as the water, sediment and the health of fish and shellfish in Massachusetts and Cape Cod Bays. Calendar year 2023 marked the 32nd consecutive year of monitoring, and 23 years since the effluent discharge moved to Massachusetts Bay from Boston Harbor. MWRA monitored baseline conditions in Boston Harbor, Massachusetts Bay, and Cape Cod Bay starting in the early 1990s, and began discharge monitoring when the outfall was moved to Massachusetts Bay and became operational in September 2000. Monitoring is designed to reveal environmental impacts from the Deer Island discharges, should any occur.

Under the current National Pollutant Discharge Elimination System (NPDES) permit for Deer Island, MWRA must submit the *Outfall Monitoring Overview* to federal and state regulatory agencies each year by November 15. The *Outfall Monitoring Overview* report summarizes the monitoring results. Required monitoring includes measurements of the Deer Island Treatment Plant's effluent, and of receiving water, sediments, fish and shellfish. As in previous years, MWRA has not identified any adverse impacts, a finding with which regulators, their science advisory panel, and public interest groups agree. This staff summary provides the Board of Directors with highlights of the 2023 *Outfall Monitoring Overview* and the 2024 monitoring, as well as a summary of any special monitoring efforts and collaborations with the science advisory panel.

Summary of Contingency Plan exceedances in 2023

The Deer Island NPDES permit¹ requires MWRA to monitor the environment around the

¹ The current NPDES permit expired in 2005. EPA released a draft Deer Island NPDES permit on May 31, 2023. MWRA submitted comments on the draft permit at the close of the comment period on November 28, 2023. A final permit has not been issued as of October 1, 2024.

Massachusetts Bay outfall. MWRA carefully analyzes monitoring data to identify changes to the Bay's ecosystem that may be related to the outfall. Key results are compared to 95 thresholds contained in MWRA's Contingency Plan.²

There were five Contingency Plan exceedances in 2023:

- Chlorophyll concentration
 - caution-level exceedances for annual and summer chlorophyll concentrations;
- Dissolved oxygen
 - warning-level (October) exceedance for nearfield dissolved oxygen concentration; and
 - caution-level (July and September) and warning-level (July and September) exceedances for Stellwagen Bank dissolved oxygen concentration and percent saturation, respectively.

The chlorophyll concentration exceedances were not caused by the Deer Island discharge. The high summer chlorophyll value is attributable to a phytoplankton bloom of the species *Tripes muelleri* and this very high summer chlorophyll value drove up the annual chlorophyll value due to the statistical averaging. The bloom was a regional occurrence, observed from Martha's Vineyard to Penobscot Bay in Maine and therefore it was not unexpected in Massachusetts Bay, given the large impact that offshore conditions have on the Bay.

Review of the information associated with the dissolved oxygen exceedances also indicates they are not linked to the outfall, but rather to offshore conditions. In October 2023, MWRA measured low dissolved oxygen at many of its monitoring locations indicating a wider, regional problem. Ten stations (five farfield and five nearfield³) out of the 14 total stations were below 6.5 mg/L, the caution threshold. Five stations (two nearfield and three farfield) out of the 14 stations were below 6 mg/L, the warning threshold. Similarly, in July and September, eight stations out of the 14 stations fell below 6.5 mg/L (July) and 12 out of 14 stations fell below 6.5 mg/L in September. Given that the low dissolved oxygen observations were wide-ranging, MWRA staff concluded that this is a regional water quality phenomenon.

One major influence driving the low dissolved oxygen is increasing water temperatures, which are seen globally, regionally, and in MWRA's data. At higher temperatures, dissolved oxygen levels

² The Contingency Plan is a requirement of the current NPDES permit. It contains 20 effluent thresholds and more than 70 numeric thresholds for Massachusetts Bay conditions calculated from environmental monitoring data (e.g., annual average chlorophyll levels near the outfall). An exceedance of a threshold requires rapid notification to EPA, DEP, the science advisory panel, and the public. Some exceedances (e.g., harmful algal blooms, known informally as "red tide") can lead to enhanced sampling for further evaluation of the event. The Contingency Plan requirement was eliminated in the draft NPDES permit issued in 2023.

³ There are 14 total water column monitoring stations. The five "nearfield" stations are within 5km of the outfall. The remaining nine stations are considered "farfield" and are greater than 5km from the outfall – the farthest farfield stations are in Cape Cod Bay. The farfield stations are monitored to stay abreast of conditions in Massachusetts and Cape Cod Bays and to ensure that the outfall plume is not having wide-ranging impacts to the region.

decline. The recent dissolved oxygen exceedances may be related to these wider trends. Additionally, the unprecedented *Tripes muelleri* bloom likely contributed to the low dissolved oxygen levels. When the phytoplankton cells die, they sink to the bottom of the Bay. Bacteria feed on the dead organic matter in a process that consumes oxygen (respiration). This leads to low dissolved oxygen levels.

Summary of Effluent Quality Monitoring in 2023

- The Deer Island Treatment Plant earned a Platinum 17 Peak Performance Award from the National Association of Clean Water Agencies for seventeen years of 100% compliance with permit effluent limits.
- Above average rainfall was experienced in 2023, but still, almost all effluent (greater than 99%) received full secondary treatment.
- Total suspended solid loads (e.g., sand, organic particles) from effluent were about 16 tons per day. Over the past two decades, the total suspended solids load has been about 10% of what had previously been discharged to the Harbor in 1990–1991. (Figure 1).

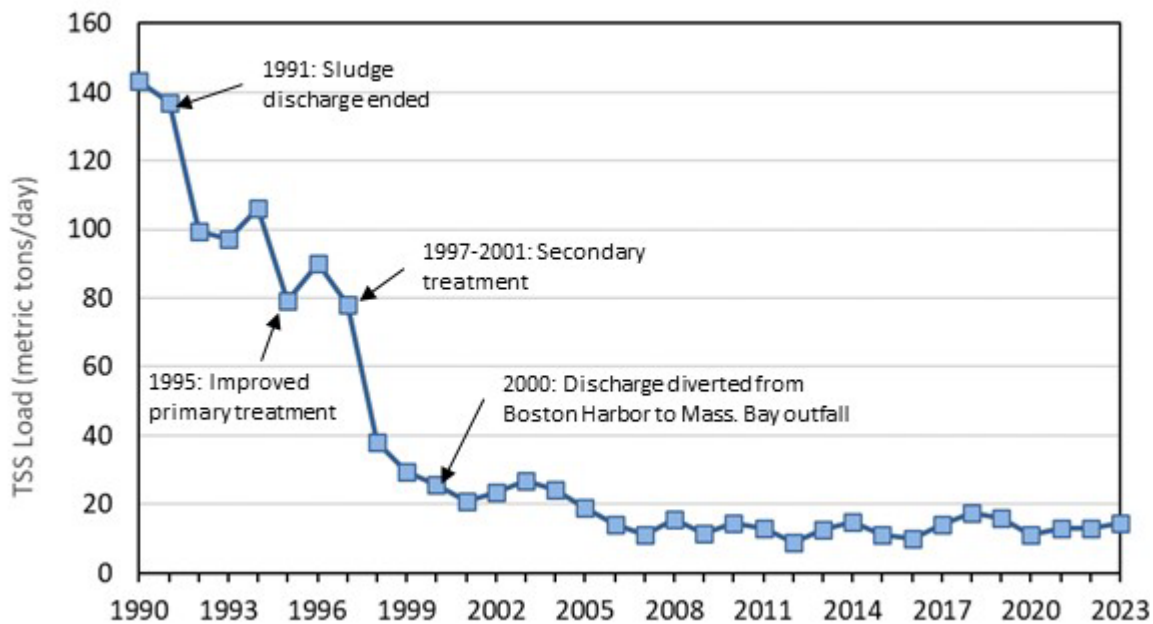


Figure 1. Annual total suspended solids discharges remained extremely low in 2023 compared to the early 1990s.

- Metals loads in the effluent remain at low levels. Like solids, metal loads have decreased significantly since 1990 (Figure 2).

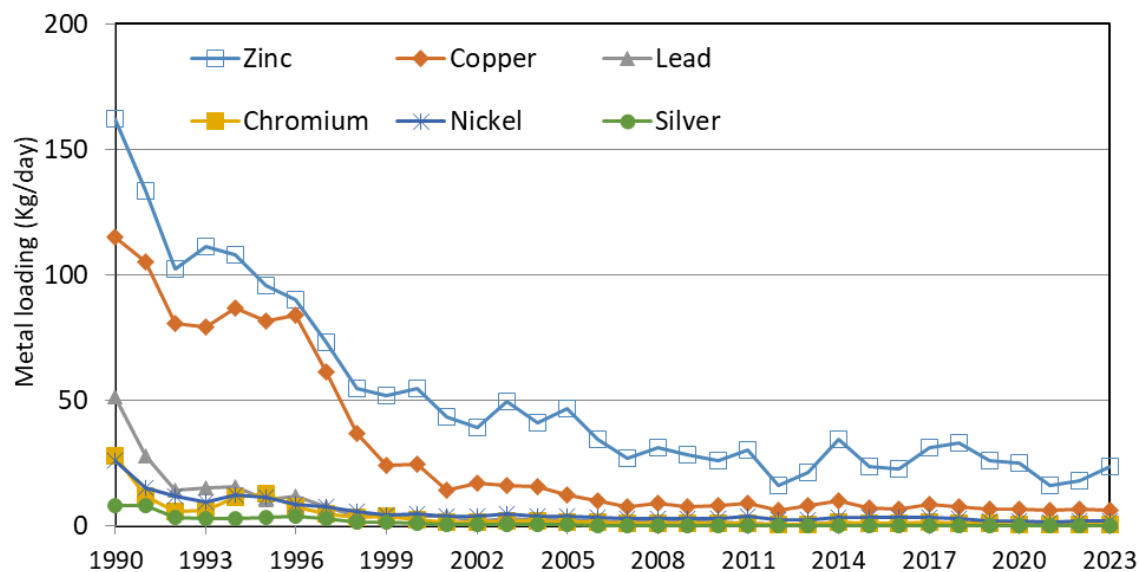


Figure 2. Annual loads of metals continue to be low compared to the early 1990s.

- Total effluent nitrogen load in 2023 did not exceed the Contingency Plan threshold (Figure 3). The reasons for the variability in the effluent nitrogen load are not entirely clear, but do not appear to have a strong correlation to annual rainfall.

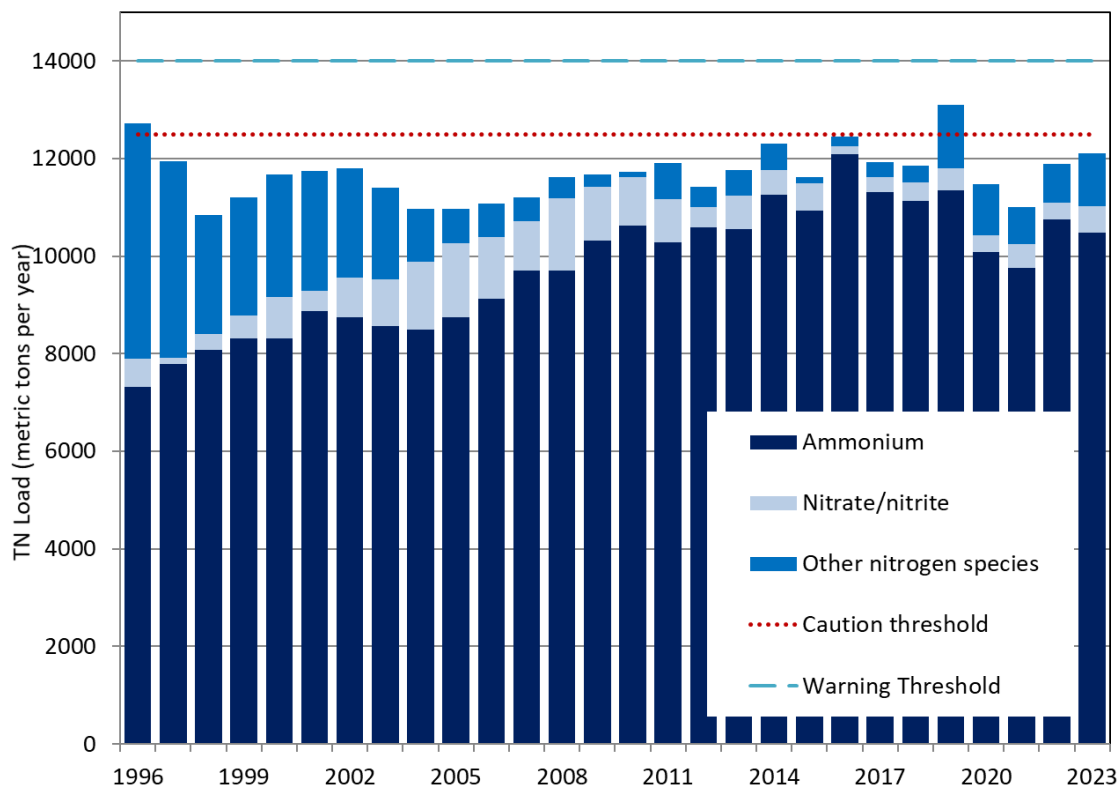


Figure 3. Annual effluent nitrogen load.

Summary of Environmental Monitoring Results in 2023

Results of 2023 monitoring in Massachusetts Bay concluded:

- no adverse impacts of the outfall discharge on environmental quality were identified in Massachusetts or Cape Cod Bays;
- water quality parameters remained within acceptable thresholds (except for the contingency plan exceedances discussed above) and plankton communities remain diverse and normal;
- seafloor animal community is healthy and diverse; and
- flounder liver disease remains low.

Water Quality Monitoring: Nutrients

The monitoring plan was designed to address concerns about whether effluent nitrogen would cause excess phytoplankton growth, which could decrease the amount of oxygen in the water; change the species or abundance of plankton, potentially adversely impacting the food web; or increase blooms of harmful algal species. Therefore, sampling focuses on the potential nitrogen impacts (especially those of ammonium, a nitrogen compound) as only about 30% of nitrogen is removed during treatment. After the outfall was relocated in 2000 from the Harbor to its current offshore location, ammonium levels increased in the Bay, but only near the outfall (Panels N21 and N18 in Figure 4).

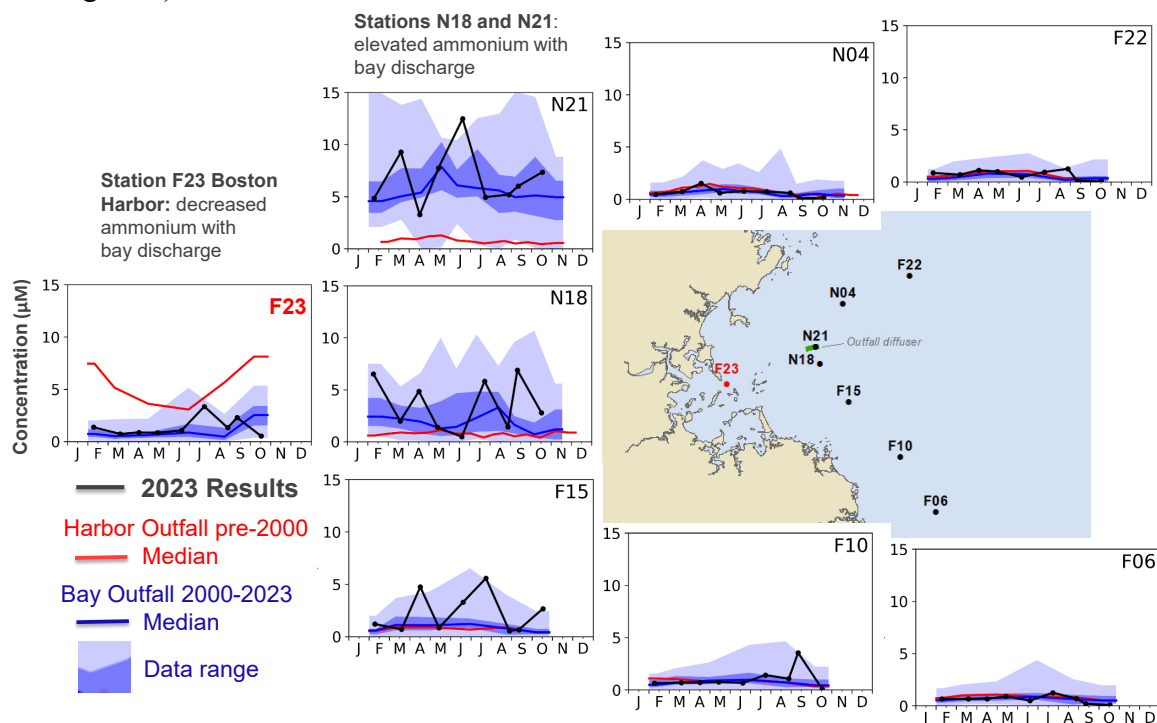


Figure 4. In Massachusetts Bay, ammonium has historically increased within a local area near the outfall. (Stations N18 and N21). Intermittent higher than usual results at locations farther from the outfall are likely the result of variable ocean currents and other natural conditions.

Water Quality Monitoring: Plankton

Although evidence has not shown that the outfall has affected phytoplankton growth or species composition, MWRA continues to monitor phytoplankton communities, including potential and confirmed nuisance species. In 2023, there were no blooms of *Alexandrium catenella*, a species responsible for some harmful algal blooms (known informally as “red tide”). Similarly, the potentially toxic diatom genus *Pseudo-nitzschia* occurred at one of the lowest abundances observed since monitoring began. However, there was an extremely large bloom of *Tripes muelleri*, which is not a harmful algal species. The bloom began in spring 2023 and only started to wane in August 2023. MWRA’s observations of this bloom matched with regional observations throughout the Gulf of Maine region, indicating this bloom was unrelated to the outfall. Total zooplankton abundance and seasonal patterns were surprisingly typical in 2023, not reflecting any response to the *Tripes muelleri* phytoplankton bloom.

Water Quality Monitoring: Dissolved Oxygen

Before the outfall was relocated offshore in 2000, there was concern that effluent nutrients might lead to excess phytoplankton growth. If that occurred, it could cause oxygen levels to decline when the phytoplankton cells die and decay, so MWRA closely monitors oxygen conditions. Oxygen conditions in Massachusetts Bay are strongly seasonal: oxygen declines through summer due to warm water and the lack of mixing, and then returns to higher levels in the fall when temperatures cool and wind strength increases and causes Bay waters to overturn. Dissolved oxygen levels in 2023 followed this cycle, but the lower levels of oxygen in the summer were lower than Contingency Plan thresholds, continuing a trend first seen in late 2021 and again in 2022. The 2023 Contingency Plan threshold exceedances occurred in July, September and October 2023.

In Massachusetts Bay there was no hypoxia (extremely low oxygen levels that are dangerous to marine life) seen in 2023. However, at Cape Cod Bay station F02, in July, September and October, dissolved oxygen levels fell below 4 mg/L; a threshold some consider to be hypoxic.

Previous investigations into Cape Cod Bay hypoxia in 2019 and 2020 have concluded that the cause is due to changing conditions brought on by climate change and not linked to the Deer Island Treatment Plant outfall.⁴ In adding to these wider trends, another factor in 2023 in Massachusetts Bay may have been the *Tripes muelleri* bloom – as the algae die and fall through the water column, the decomposing organic matter will consume available oxygen. MWRA presented 2023 oxygen data at the Outfall Monitoring Science Advisory Panel’s February 2024 meeting, where the Panel discussion focused on regional drivers and conditions.

Monitoring the Sea Floor near the Outfall and in the Harbor

Sea floor habitat (the benthos) is a major component of a healthy marine ecosystem and is

⁴ Scully, M. E., Geyer, W. R., Borkman, D., Pugh, T. L., Costa, A., and Nichols, O. C. 2022. Unprecedented summer hypoxia in southern Cape Cod Bay: an ecological response to regional climate change? *Biogeosciences*, 19, 3523–3536. <https://doi.org/10.5194/bg-19-3523-2022>.



Figure 5. Polychaete worms such as these are the dominant animals in the soft sediments near the outfall.

of particular interest in studies of pollutant effects because many contaminants ultimately end up in the sediments.

MWRA's benthic monitoring assesses the health of animal communities and physically characterizes the sediments (Figure 5). Diverse groups of animals including worms, mollusks, and crustaceans typical of New England were observed in 2023, and the species assemblages were driven by sediment size and depth, not the proximity to the outfall.

Fish and Shellfish Monitoring

Flounder are a fish that live in close contact with the bottom sediments. This makes their health, especially rates of liver disease, an indication of the effects of contaminants in the sea floor. During the 1970s and 1980s, fin rot and liver disease (including liver tumors)

associated with contaminant exposure were common in winter flounder taken from Boston Harbor. Sampling of flounder has continued as part of MWRA's monitoring since 1991. The flounder study has documented substantial declines in tumor precursors as the flounder population recovered in the Harbor, with no increased tumor precursors in fish caught near the Massachusetts Bay outfall. Catching the required flounder has been more challenging in recent years, and in 2023, for the first time since start of the monitoring program only 44 flounder were caught and analyzed (not the full 50) due to decreasing flounder populations, technical challenges (torn nets and entangled lobster traps) and a decrease in fishing boat availability. In 2023, the percentage of flounder containing tumor precursors was completely absent at Deer Island Flats and very low near the outfall (7%). Importantly, liver tumors have not been observed in flounder from the Harbor since 2004, and have never been observed in flounder caught near the outfall.

Summary of Information Outreach Efforts

MWRA informs the public, area environmental groups, and colleagues in academia and the wastewater industry about the findings from its monitoring. In 2023 and 2024 staff:

- shared beach and river monitoring results with municipalities, regional watershed associations, and interested citizens;
- met periodically with researchers and students from universities to share results of MWRA's monitoring, learn about current academic research, and discuss emerging issues of environmental concern (e.g. attended a symposium at the University of New Hampshire that discussed the regional bloom of *Tripes muelleri*); and
- participated in advisory and oversight committees for regional monitoring and outreach groups, including the Sea Grant College program, EPA, the Massachusetts Bays National

Estuary Partnership and the Northeast Regional Association of Coastal Ocean Observing Systems.

Staff promote outreach and information gathering on issues important to MWRA. Staff will post the 2023 *Outfall Monitoring Overview* on MWRA's website and issue a summary of results.

Other Monitoring Program Activities

Bays Eutrophication Model. As required by the NPDES permit, MWRA runs the Bay Eutrophication Model (BEM) annually. The BEM is a sophisticated computer model used to assess potential outfall contributions to eutrophication, or the over-enrichment of nutrients, in Massachusetts Bay. The BEM has consistently shown, including in 2023, that the outfall's nutrient contribution to the Bay, while visible near the outfall (Figure 4), has not had a detrimental impact on the Bay's ecosystem.

Continuous Monitoring. As required by the NPDES permit, MWRA contributes to the costs related to maintaining instrumentation on the A01 buoy located in Massachusetts Bay and managed by the University of Maine. Dissolved oxygen, chlorophyll and turbidity are reported to MWRA, along with other physical and chemical parameters. These data are used to monitor regional conditions unrelated to the outfall that can help to inform the results of MWRA's Massachusetts and Cape Cod Bay monitoring.

BUDGET/FISCAL IMPACT:

The FY25 Current Expense Budget for required Harbor and outfall monitoring, including the water column, sediment, fish and shellfish monitoring, water quality modeling, and instrumented buoys, is approximately \$1.8 million.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: October 23, 2024
SUBJECT: Hayes Pump Station Rehabilitation
Waterline Industries Corporation
Contract 7375



COMMITTEE: Wastewater Policy & Oversight


Patricia Mallett, P.E., Program Manager
Brian Kubaska, P.E., Chief Engineer
Preparer/Title

 INFORMATION

 X VOTE


Michele S. Gillen

Director of Administration


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

RECOMMENDATION:

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.

DISCUSSION:

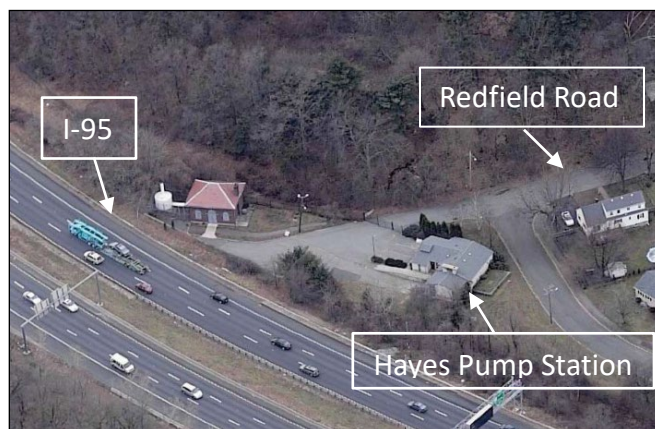


Figure 1: Hayes Pump Station Location

The Hayes Pump Station was built in 1987 to replace the old Reading Pump Station. It is located adjacent to I-95 on the Reading/Wakefield line at the end of Redfield Road, as shown in Figure 1. The station receives wastewater flows from Reading, the northwest corner of Wakefield and portions of Stoneham. The station pumps flows of approximately three mgd on a typical day and is able to pump peak flows of approximately 9.4 mgd. Pumped flows are conveyed through a force main under I-95 to MWRA's Reading Extension Relief Sewer. The old Reading Pump Station

building located on the southern end of the property is currently used to house the odor control fan, which draws air from the Hayes Pump Station and discharges through a carbon vessel.



Figure 2: Influent Gate

The majority of the Hayes Pump Station equipment and facility components are over 30 years old or are at the end of their service life. These assets are in need of repair or replacement to help ensure MWRA's ability to continue to provide uninterrupted wastewater service. Major facility components in need of rehabilitation include facility gates (see Figure 2), wastewater screens and grinders, primary wastewater pumps (see Figure 3) and motors, SCADA equipment, odor control systems and electrical equipment including the emergency generator.

Given changes in the Massachusetts State Building Code since the facility was constructed, the rehabilitation will also include upgrades to address code compliance issues, such as HVAC and plumbing, architectural and fire protection system improvements.

During the facility rehabilitation, a temporary bypass pumping system, bypassing all wastewater flows around the facility, will be installed, allowing the facility deactivation needed to replace certain process equipment and expedite the construction. Site drainage improvements, including a drainage swale and MassDOT stormwater system connection, will also be constructed.



Figure 3: Pumps

Procurement Process

Contract 7375 was advertised in the Boston Herald, the Central Register, Banner Publications, El Mundo, and the Dorchester Reporter and bid in accordance with Chapter 149 of the Massachusetts General Laws. In addition, bid documents were made available for public viewing and downloading on the MWRA Supplier Portal as Event 5964. The contract was bid and advertised with subbids for seven categories of work. General bids were received and opened on September 27, 2024. The results are presented below.

<u>Bidder</u>	<u>Bid Amount</u>
Waterline Industries Corporation	\$25,559,181*
<i>Engineer's Estimate</i>	<i>\$28,479,025</i>
WES Construction Corporation	\$29,649,000

*Bid adjusted to reflect lowest qualified Fire Protection Filed Sub-Bid

Waterline Industries submitted a bid price that is \$2,919,844 (10.24%) less than the Engineer's Estimate and 13.79% lower than the bid from WES Construction. There appears to be two primary reasons for the difference between Waterline's bid price and the Engineer's Estimate. First, Waterline submitted five filed sub-bids, which it restricted to itself and explained that it was able to realize efficiencies in coordinating the work schedules and its workforce while operating as both the general contractor and subcontractor. Additionally, Waterline advised that it was aggressive

with its bid price as the firm is completing some projects that had logistical challenges and this project has a location close to its office and the residences of its workers.

MWRA staff reviewed Waterline's restricted filed subbids and, later, its general bid with Waterline's project management team to ensure they fully understood the scope of work, that the bid was compliant with applicable bid laws, and to confirm that the firm could complete both the filed subbid work and the general bid work for the price bid. MWRA staff were satisfied with Waterline's responses. References for Waterline were checked and found to be favorable. Waterline successfully completed the Caruso Pump Station Improvements and the Hatchery Pipeline and Hydroelectric Project for MWRA. Staff report that Waterline performed well. External references for the City of Brockton Water Treatment Plant Filter Rehabilitation and the Patton & Shabokin Water Treatment Plants in Devens were very good. Both references stated that Waterline adhered to the project schedules, and they would hire Waterline in the future.

Staff conducted a review of the OSHA database and noted that Waterline received one violation for not instructing employees in recognition and avoidance of unsafe conditions related to the placement of extension cords. In response, Waterline's next monthly safety training included information on the correct use of extension cords.

Staff have determined that Waterline possesses the skill, ability, and integrity necessary to perform the work under this contract and is qualified to do so. Staff have further determined that the bid price is reasonable, complete, and incorporates all necessary labor and materials, including payment of prevailing wages, as required. Therefore, staff recommend the award of this contract to Waterline Industries Corporation as the lowest responsible and eligible bidder.

BUDGET/FISCAL IMPACT:

The FY25 CIP includes \$22,661,000 for contract 7375. The award amount is \$25,559,181 or \$2,898,181 over the CIP amount. This amount will be absorbed within the five-year CIP spending cap.

MBE/WBE PARTICIPATION:

The minimum MBE and WBE participation requirements for this contract are 7.24% and 3.6% respectively. The Affirmative Action and Compliance Unit reviewed the bids and determined that Waterline's bid is responsive to these requirements.

STAFF SUMMARY


TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: October 23, 2024
SUBJECT: Delegated Authority Report – September 2024



COMMITTEE: Administration, Finance & Audit

X INFORMATION
 VOTE

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


Michele S. Gillen
Director, Administration
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 September 1-30, 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 September 1 – 30, 2024

No.	Date of Award	Title and Explanation	Contract	Amend/CO	Company	Value
C-1	9/18/23	Thermal and Hydro Power Plant Maintenance Final balancing change order to decrease the following bid items: Delete requirement to perform maintenance services of Thermal Power Plant equipment, Hydro Power Plant equipment, Surveillance Program for Steam Turbine Generators and Norwalk Gas compressors, Non-Emergency and Emergency maintenance and repair services, Replacement Parts, Factory Service Representative, Fire Department Services and COVID-19 Safety.	\$597	4	O'Connor Corporation	(\$841,389.15)
C-2	9/23/24	Overhead Door Maintenance Services Deer Island Treatment Plant Final balancing change order to decrease the following bid items: Non-Emergency and Emergency maintenance services, Replacement Parts and Fire Department Services/Permits.	\$589	1	Collins Overhead Door, Inc.	(\$133,204.59)
C-3	9/30/24	Rehabilitation of Section 23, 24 and 47 Water Mains – Boston and Newton Furnish and install a mechanical joint by flange adaptor to make the transition from cast iron to ductile iron in lieu of a welded butt strap at Section 23 connection to Shaft 7; Remove a Mass DOT light pole and temporarily relocate conduits to repair a damaged section of 20-inch steel pipe, modify its support of excavation, furnish and install a 20-inch steel spool for closure piece at the access pit on Saint James Circle; Repair existing water service on Saint James Terrace.	6392	8	Albanese D&S, Inc.	\$64,523.69

Purchasing Delegated Authority Items September 1-30, 2024

No.	Date of Award	Title and Explanation	Company	Value
P-1	9/23/24	Purchase Order for Two NetApp Storage Arrays, Three Years of Support, and Installation Services—<i>State Contract ITC73</i> Purchase of two new storage arrays and three years of maintenance and support to replace current devices at their end of life. One storage array will be located in Chelsea and the other on Deer Island.	ePlus Technology, Inc.	\$111,274.00
P-2	9/23/24	Purchase Order Contract for the Supply and Delivery of Biodiesel Fuel—<i>State Contract ENE53</i> Biodiesel is a cleaner burning alternative to straight petroleum-based diesel fuel. Under State Contract ENE53, biodiesel is purchased at a fixed differential price that is applied to the low wholesale Boston price as published daily by the Oil Price Information Services. MWRA will pay only for product delivered and received.	Broco Oil, Inc.	\$300,000.00
P-3	9/23/24	Purchase Order for One Hydro Excavation Machine and One Jet/Sewer Cleaning Machine Purchase of one hydro excavation machine and one jet/sewer cleaning machine for use in various tasks such as leak and water main break excavations, valve replacements, and blow off retrofits. These will replace two of the Water Pipeline Program’s trucks which have been deemed unrepairable and declared surplus.	Allied Equipment LLC	\$1,236,347.00
P-4	9/23/24	Three-Year Purchase Order Contract for the Supply and Delivery of Soda Ash MWRA uses soda ash for corrosion control. Compared to the existing contract, the price has increased by 16%.	Sisecam Wyoming LLC	\$11,761,200.00
P-5	9/24/24	Purchase of 10 Cisco Catalyst Switches and a Five-Year Maintenance Service Agreement—<i>State Contract ITC47</i> Edge switches are used to connect multiple devices on the same network. This procurement will replace end-of-life edge switches within the Deer Island data center.	Presidio Networked Solutions, LLC	\$99,660.08
P-6	9/24/24	One-Year Purchase Order Contract for the Supply and Delivery of Sodium Hypochlorite The Deer Island Treatment Plant uses sodium hypochlorite for pathogen and odor control. Compared to the existing contract, the cost has decreased by 23%.	Borden & Remington Corporation	\$3,823,820.00

STAFF SUMMARY



TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: October 23, 2024
SUBJECT: FY25 Financial Update and Summary through September 2024

COMMITTEE: Administration, Finance & Audit

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

X INFORMATION

 VOTE



Thomas J. Durkin
Director, Finance

RECOMMENDATION:

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

DISCUSSION:

The total Year-to-Date variance for the FY25 CEB is \$6.7 million, due to lower direct expenses of 6.1% or \$4.6 million, indirect expenses of 1.1% or \$0.3 million, and debt service costs of 0.7% or \$0.8 million, and higher revenue of \$0.9 million.

FY25 Current Expense Budget

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

- Lower Direct Expenses of \$4.6 million or 6.1% under budget. Spending was lower for Wages & Salaries, Professional Services, Fringe Benefits, Utilities, Chemicals, Other Services, Training & Meetings, and Overtime. Spending was higher than budget for Maintenance, Other Materials, and Workers' Compensation.
- Lower Indirect Expenses of \$0.3 million or 1.1% under budget due primarily to lower Watershed reimbursements.
- Debt Service expenses were \$0.8 million or 0.7% under budget driven by lower than budgeted variable interest expense.
- Revenue was \$0.9 million or 0.4% over budget driven by Investment Income of \$0.8 million due to higher than budgeted interest rates.

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

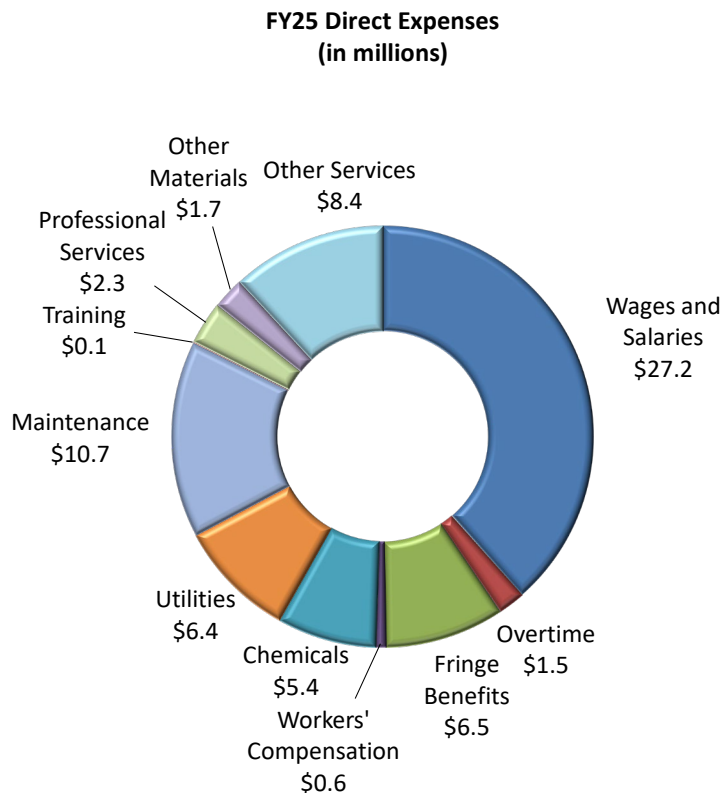
	FY25 Budget	FY25 Actual	\$ Variance	% Variance
Direct Expenses	\$75.2	\$70.6	-\$4.6	-6.1%
Indirect Expenses	\$30.0	\$29.7	-\$0.3	-1.1%
Capital Financing	\$111.6	\$110.8	-\$0.8	-0.7%
Total	\$216.9	\$211.1	-\$5.8	-2.7%

Totals may not add due to rounding

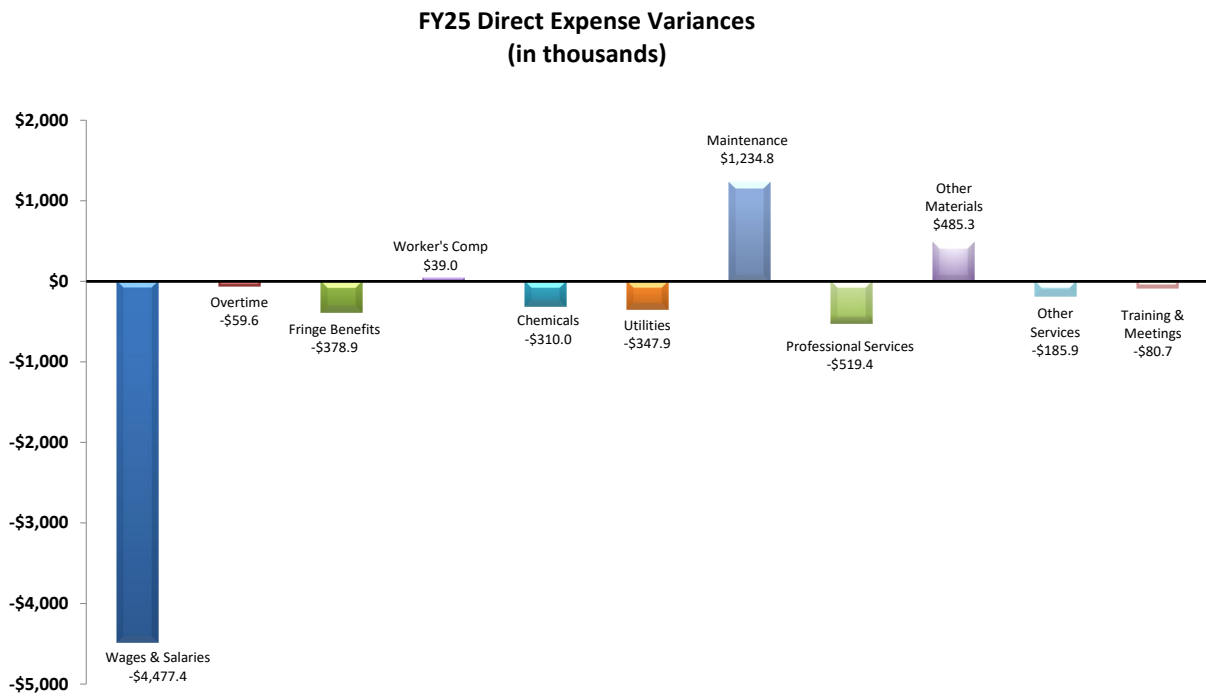
Please refer to Attachment 1 for a more detailed comparison by line item of the budget variances for FY25.

Direct Expenses

FY25 direct expenses through September totaled \$70.6 million, which was \$4.6 million or 6.1% less than budgeted.

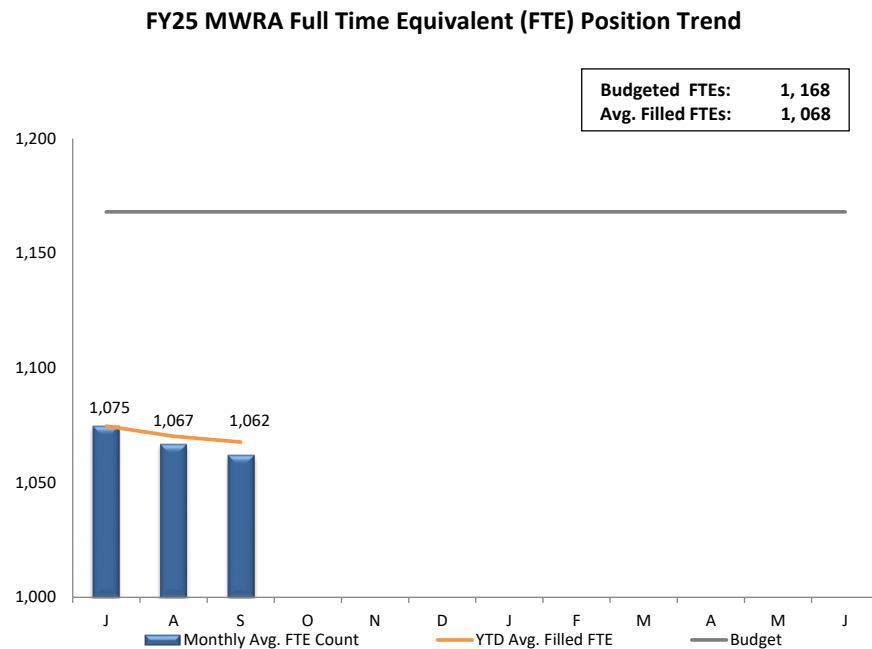


Spending was lower than budget for Wages & Salaries, Professional Services, Fringe Benefits, Utilities, Chemicals, Other Services, Training & Meetings, and Overtime. These were partially offset by higher than budgeted spending for Maintenance, Other Materials, and Workers' Compensation.



Wages and Salaries

Wages and Salaries was under budget by \$4.5 million or 14.1%. Through September, there were 100 fewer average FTEs (1,068 versus 1,168 budget) or 8.6% 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 \$1.2 million or 13.1%. Maintenance Services were greater than budget by \$1.6 million driven by higher Plant & Machinery Services of \$2.0 million due to earlier than anticipated work performed for annual boiler maintenance and additional wicket gate repair work 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 Pipeline Services of \$204,000 due to less than anticipated paving services through September, Computer Services of \$140,000 and Building & Grounds Services of \$112,000 due to less than anticipated spending through September. Maintenance Materials were lower than budget by \$385,000 driven by Special Equipment Materials of \$564,000 due to later than expected spending on hatch covers for Loring Road Covered Storage and HVAC Materials of \$110,000 due to less than anticipated purchases through September. These are partially offset by higher Warehouse Inventory of \$177,000 due to the need for spare parts and purchase of materials early due to long lead times, and Plant & Machinery Materials of \$137,000 due to greater than anticipated purchases through September.

Professional Services

Professional Services were less than budget by \$519,000 or 18.2% driven by lower Other Services of \$249,000 due to later than anticipated services which includes the Disparity Study, Lab & Testing Analysis of \$140,000 and Computer Systems Consultant of \$107,000, both due to less than anticipated spending through September.

Other Materials

Other Materials were greater than budget by \$485,000 or 40.1% driven by Computer Hardware of \$363,000 primarily due to earlier than anticipated purchasing of materials through September 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 \$116,000 was due to greater than anticipated lab equipment purchases through September.

Fringe Benefits

Fringe Benefits spending was lower than budget by \$379,000 or 5.5%. This is primarily driven by lower Health Insurance costs of \$364,000, 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.

Utilities

Utilities were lower than budget by \$348,000 or 5.1%. Lower than budgeted spending for Electricity of \$445,000 was driven by Deer Island Treatment Plant of \$233,000 primarily due to lower pricing by Eversource. Electricity in Field Operations was less than budget by \$224,000 primarily due to lower demand as a result of fewer wet weather events, resulting in less pumping.

Chemicals

Chemicals were lower than budget by \$310,000 or 5.5%. Lower than budgeted spending on Sodium Hypochlorite of \$289,000 was driven by DITP of \$287,000 due to below average plant flows. Lower Liquid Oxygen of \$105,000 was due to lower dosing at the John Carroll Water Treatment Plant. Lower Sodium Bisulfite of \$75,000 was primarily driven by Wastewater Operations of \$33,000 due to lower dose and volume as a result of less than anticipated CSO activations, and lower volume at DITP of \$33,000 due to lower quantities to dechlorinate the effluent. Higher Hydrogen Peroxide of \$213,000 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 spending of \$100,000 was to keep the orthophosphate levels within the target levels. DITP flows are 17.9% less than the budget and the CWTP flows are 0.5% greater than the budget through September. 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 Services

Other Services were lower than budget by \$186,000 or 2.2% driven by Grit & Screenings Removal of \$158,000 and Sludge Pelletization of \$127,000 both primarily due to lower quantities, and lower than anticipated Telecommunication costs of \$111,000. This underspending was partially offset by higher Members/Dues/Subscriptions of \$330,000 due to earlier than anticipated payments.

Training & Meetings

Training & Meetings was lower than budget by \$81,000 or 53.9% primarily due to less than anticipated spending on meetings and conferences through September.

Overtime

Overtime expenses were lower than budget by \$60,000 or 3.9%. Lower than budgeted spending for the Field Operations Department (FOD) of \$47,000 is primarily due to less emergency and planned overtime due to vacancies and less rain events, and Engineering & Construction of \$19,000 due to less than anticipated needs through September. These were partially offset by higher spending at DITP of \$51,000 due to shift coverage due to vacancies. Year-to-date rainfall was a major contributor for the less than anticipated overtime.

Worker's Compensation

Worker's Compensation expenses were greater than budget by \$39,000 or 7.5%. The variances are due to higher than budgeted expenses for Medical Payments of \$37,000 and Administrative Expenses of \$31,000, partially offset by lower Compensation Payments of \$29,000. Due to uncertainties of when spending will happen, the budget was spread evenly throughout the year.

Indirect Expenses

Indirect Expenses totaled \$29.7 million, which is \$342,000 or 1.1% lower than budget. The variance is driven by lower Watershed reimbursements.

Based on FY25 operating activity only, the Watershed Division is \$162,000 or 3.3% under budget. Lower spending on Wages and Salaries 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 \$318,000 or 6.5% below budget through September 2024.

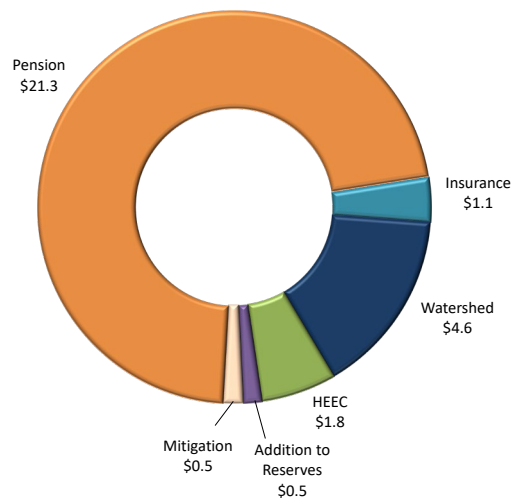
FY25 Watershed Protection Variance

\$ in millions	YTD Budget	YTD Actual	YTD \$ Variance	YTD % Variance
Operating Expenses	5.3	5.0	-0.3	-5.7%
Operating Revenues - Offset	0.4	0.3	-0.1	-33.9%
FY25 Operating Totals	4.9	4.7	-0.2	-3.3%
DCR Balance Forward (FY24 year-end accrual true-up)	0.0	-0.2	-0.2	
FY25 Adjusted Operating Totals	4.9	4.6	-0.3	-6.5%
PILOT	0.0	0.0	0.0	0.0%
Total Watershed Reimbursement	4.9	4.6	-0.3	-6.5%

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 arrears. 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.

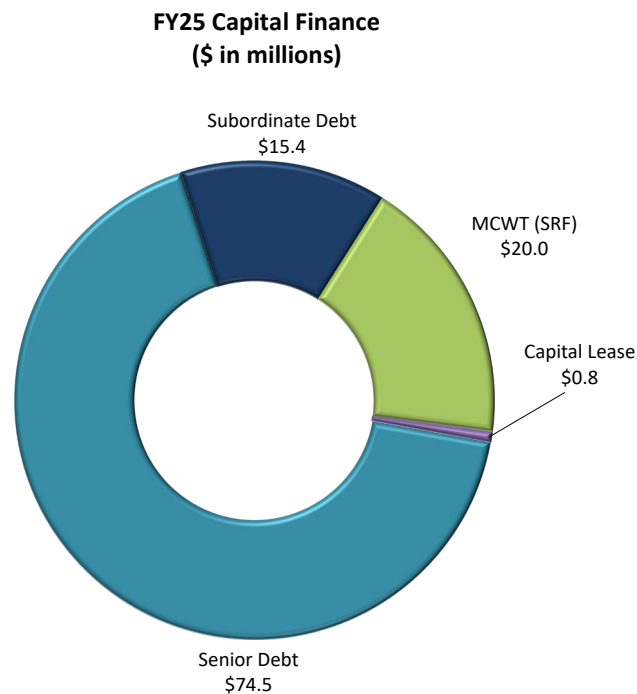
FY25 Indirect Expenses (in millions)



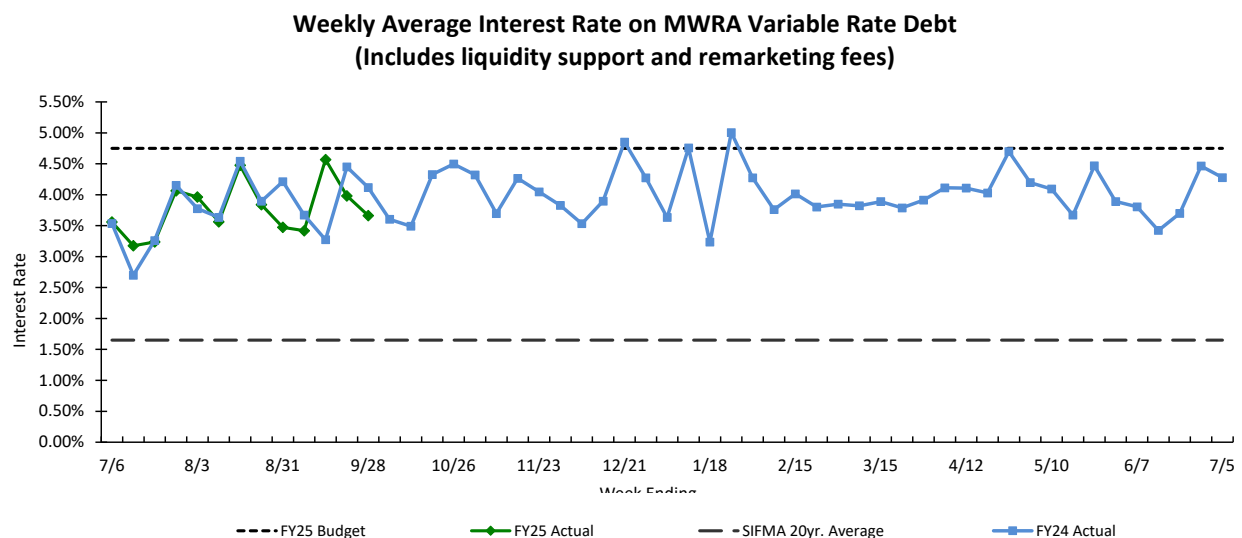
Capital Financing

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 September totaled \$110.8 million, which is \$835,000 or 0.7% less than budget. This favorable variance is the result of lower than budgeted variable interest rates.



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



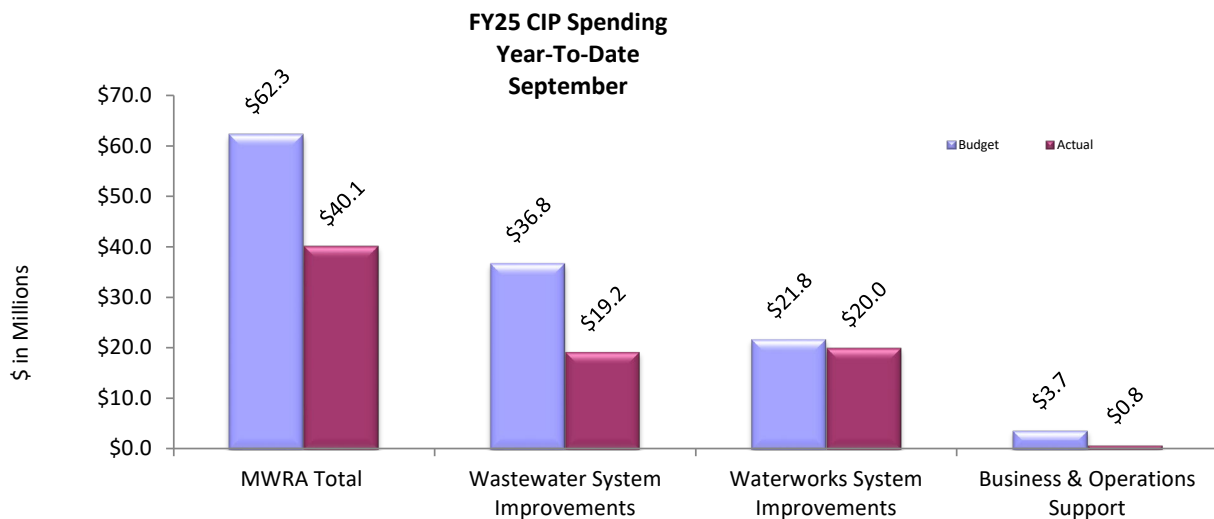
Revenue & Income

Revenues of \$224.9 million were \$0.9 million or 0.4% over the estimate driven by Investment Income which was \$0.8 million or 12.7% over the estimate due to higher than assumed interest rates.

FY25 Capital Improvement Program

Capital expenditures in Fiscal Year 2025 through September total \$40.1 million, \$22.2 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 \$36.4 million, \$7.9 million or 17.9% under planned spending.



Overall, CIP spending reflects the underspending in Wastewater Improvements (\$17.6 million), Waterworks (\$1.8 million) and Business and Operations Support (\$2.9 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, 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, 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 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 planned contractor progress for Waltham Water Pipeline Construction, greater than anticipated requests for community loans for the Water Loan Program, consultant progress greater than anticipated for Digester & Storage Tank Rehabilitation Design/ESDC, and work scheduled for FY24 performed in FY25 for Clinton Wastewater Treatment Plant Screw Pump Replacement.

\$ in Millions	Budget	Actuals	\$ Var.	% Var.
Wastewater System Improvements				
Interception & Pumping	3.5	1.9	(1.6)	-45.7%
Treatment	15.0	13.3	(1.7)	-11.6%
Residuals	0.0	0.0	0.0	0.0%
CSO	2.4	0.4	(2.0)	-82.2%
Other	15.8	3.6	(12.3)	-77.4%
Total Wastewater System Improvements	\$36.8	\$19.2	(\$17.6)	-47.8%
Waterworks System Improvements				
Drinking Water Quality Improvements	1.4	1.3	(0.1)	-6.0%
Transmission	13.1	10.4	(2.7)	-20.6%
Distribution & Pumping	6.6	7.3	0.6	9.7%
Other	0.7	1.0	0.4	58.1%
Total Waterworks System Improvements	\$21.8	\$20.0	(\$1.8)	-8.1%
Business & Operations Support	\$3.7	\$0.8	(\$2.9)	-77.6%
Total MWRA	\$62.3	\$40.1	(\$22.2)	-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.

Business & Operations Support: Less than planned spending of \$2.9 million

- \$0.7 million for Lawson Upgrade due to slower than anticipated vendor invoicing.
- \$0.4 million for As-Needed Design Contracts due to lower than projected task order work.
- \$0.4 million for MAXIMO Interface Enhancements due to less than anticipated completion of final work.
- \$0.4 million for Security Equipment & Installation due to delays with upgrades to communication circuits, security cameras, and back-up of the head-end of intrusion alarms.

Waterworks Transmission: Less than planned spending of \$2.7 million

- \$2.1 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.
- 0.5 million for WASM 3 MEPA/Design/CA/RI due to less than anticipated consultant work.
- \$0.3 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 \$1.8 million for Waltham Water Pipeline.

Combined Sewer Overflow: Less than planned spending of \$2.0 million

- \$2.1 million for Fort Point Channel & Mystic due to the timing of Community Managed CSO.

Wastewater Treatment: Less than planned spending of \$1.7 million

- \$1.6 million for Clarifier Rehabilitation Phase 2 Construction due to equipment scheduled for FY25 received in FY24.
- \$0.5 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 \$0.3 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 \$1.6 million

- \$0.8 million for West Roxbury Tunnel Inspection due to work delayed due to contractor in process of submitting dive and safety plan.
- \$0.3 million for Nut Island Odor Control & HVAC Improvements Design/CA/REI & Construction Phase 2 due to work scheduled for FY25 performed in FY24.

Water Distribution and Pumping: Greater than planned spending of \$0.6 million

- \$1.9 million for CP-1 NEH Improvements and \$0.5 million for New Connecting Mains CP3-Sections 23, 24 & 47 Rehabilitation due to work scheduled for FY24 including paving performed in FY25.
- This greater than planned spending was partially offset by less than planned spending of \$0.5 million for Northern Extra High Service (NEH) - New Pipelines Legal due to less than planned legal expenses, and \$0.5 million for Section 89/29 Replacement Construction due to less than planned contractor progress.

Other Waterworks: Greater than planned spending of \$0.4 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

- \$0.5 million for the John Carroll Water Treatment Plant (JCWTP) Technical Assistance due to lower than projected task order work, partially offset by \$0.4 million for JCWTP Parapet Wall Repairs due to contractor progress greater than planned.

Construction Fund Balance

The construction fund balance was \$117.2 million as of the end of September. Commercial Paper/Revolving Loan available capacity was \$250 million.

ATTACHMENTS:

Attachment 1 – Variance Summary September 2024

Attachment 2 – Current Expense Variance Explanations

Attachment 3 – Capital Improvement Program Variance Explanations

ATTACHMENT 1
FY25 Actuals vs. FY25 Budget

	Sep 2024 Year-to-Date				
	Period 3 YTD Budget	Period 3 YTD Actual	Period 3 YTD Variance	%	FY25 Approved
<u>EXPENSES</u>					
WAGES AND SALARIES	\$ 31,682,818	\$ 27,205,421	\$ (4,477,397)	-14.1%	\$ 133,658,955
OVERTIME	1,520,033	1,460,401	(59,632)	-3.9%	6,133,078
FRINGE BENEFITS	6,838,587	6,459,730	(378,857)	-5.5%	27,834,124
WORKERS' COMPENSATION	518,359	557,331	38,972	7.5%	2,073,434
CHEMICALS	5,678,227	5,368,244	(309,983)	-5.5%	19,706,033
ENERGY AND UTILITIES	6,783,712	6,435,842	(347,870)	-5.1%	32,048,176
MAINTENANCE	9,426,931	10,661,722	1,234,791	13.1%	46,653,201
TRAINING AND MEETINGS	149,667	69,010	(80,657)	-53.9%	568,346
PROFESSIONAL SERVICES	2,847,216	2,327,837	(519,379)	-18.2%	11,121,730
OTHER MATERIALS	1,208,965	1,694,291	485,326	40.1%	7,270,879
OTHER SERVICES	8,575,697	8,389,778	(185,919)	-2.2%	33,945,804
TOTAL DIRECT EXPENSES	\$ 75,230,212	\$ 70,629,607	\$ (4,600,603)	-6.1%	\$ 321,013,760
INSURANCE	\$ 1,117,761	\$ 1,093,588	\$ (24,173)	-2.2%	\$ 4,471,045
WATERSHED/PILOT	4,880,952	4,563,216	(317,736)	-6.5%	32,507,642
HEEC PAYMENT	1,838,571	1,838,568	(3)	0.0%	8,185,722
MITIGATION	455,891	455,891	-	0.0%	1,823,564
ADDITIONS TO RESERVES	476,570	476,570	-	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	\$ 30,034,264	\$ 29,692,352	\$ (341,913)	-1.1%	\$ 75,439,576
STATE REVOLVING FUND	\$ 20,037,575	\$ 20,037,575	\$ -	0.0%	\$ 85,449,151
SENIOR DEBT	74,535,452	74,535,452	-	0.0%	315,206,721
DEBT SERVICE ASSISTANCE	-	-	-	---	-
CURRENT REVENUE/CAPITAL	-	-	-	---	20,200,000
SUBORDINATE MWRA DEBT	16,271,421	16,271,421	-	0.0%	64,768,074
LOCAL WATER PIPELINE CP	-	-	-	---	9,827,661
CAPITAL LEASE	804,265	804,265	-	0.0%	3,217,060
VARIABLE DEBT	-	(834,845)	(834,845)	---	-
DEFEASANCE ACCOUNT	-	-	-	---	-
DEBT PREPAYMENT	-	-	-	---	5,500,000
TOTAL CAPITAL FINANCE EXPENSE	\$ 111,648,713	\$ 110,813,868	\$ (834,845)	-0.7%	\$ 504,168,667
TOTAL EXPENSES	\$ 216,913,189	\$ 211,135,827	\$ (5,777,361)	-2.7%	\$ 900,622,003
<u>REVENUE & INCOME</u>					
RATE REVENUE	\$ 213,872,000	\$ 213,872,000	\$ -	0.0%	\$ 855,488,000
OTHER USER CHARGES	2,971,172	3,035,035	63,863	2.1%	10,668,572
OTHER REVENUE	635,352	651,647	16,295	2.6%	6,066,670
RATE STABILIZATION	-	-	-	---	-
INVESTMENT INCOME	6,527,772	7,359,087	831,315	12.7%	28,398,761
TOTAL REVENUE & INCOME	\$ 224,006,296	\$ 224,917,769	\$ 911,472	0.4%	\$ 900,622,003

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY25 Budget YTD September	FY24 Actuals September	FY25 Actual vs. FY25 Budget		Explanations
			\$	%	
Direct Expenses					
Wages & Salaries	31,682,818	27,205,421	(4,477,397)	-14.1%	Wages and Salaries were lower than budget by \$4.5 million or 14.1%. Year to date, there have been 100 fewer average FTEs (1,068 versus 1,168 budget), lower average new hire salaries versus retirees, the timing of backfilling vacant positions.
Overtime	1,520,033	1,460,401	(59,632)	-3.9%	Overtime expenses were lower than budget by \$60,000 or 3.9%. Lower than budgeted spending for the Field Operations Department (FOD) of \$47,000 is primarily due to less emergency and planned overtime due to vacancies and less rain events, and Engineering & Construction of \$19,000 due to less than anticipated needs through September. These were partially offset by higher spending at DITP of \$51,000 due to shift coverage due to vacancies. Year-to-date rainfall was a major contributor for the less than anticipated overtime.
Fringe Benefits	6,838,587	6,459,730	(378,857)	-5.5%	Fringe Benefits spending was lower than budget by \$379,000 or 5.5%. This is primarily driven by lower Health Insurance costs of \$364,000, 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	518,359	557,331	38,972	7.5%	Worker’s Compensation expenses were greater than budget by \$39,000 or 7.5%. The higher than budgeted expenses were due to Medical Payments of \$37,000 and Administrative Expenses of \$31,000, partially offset by lower Compensation Payments of \$29,000. Due to uncertainties of when spending will happen, the budget was spread evenly throughout the year.
Chemicals	5,678,227	5,368,244	(309,983)	-5.5%	Chemicals were lower than budget by \$310,000 or 5.5%. Lower than budget spending on Sodium Hypochlorite of \$289,000 million was driven by DITP of \$287,000 due to below average plant flows. Lower Liquid Oxygen of \$105,000 due to lower dosing at Carroll Water Treatment Plant. Lower Sodium Bisulfite of \$75,000 was primarily driven by Wastewater Operations of \$33,000 due to lower dose and volume as a result of less than anticipated CSO activations, and lower volume at DITP of \$33,000 due to lower quantities to dechlorinate the effluent. Higher Hydrogen Peroxide of \$213,000 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 \$100,000 to keep the orthophosphate levels within the target levels. DITP flows are 17.9% less than the budget and the CWTP flows are 0.5% greater than the budget through September. 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	6,783,712	6,435,842	(347,870)	-5.1%	Utilities were lower than budget by \$348,000 or 5.1%. Lower than budgeted spending for Electricity of \$445,000 million primarily at DITP of \$233,000 was driven primarily by lower pricing by Eversource. Electricity in Field Operations was less than budget by \$224,000 primarily due to lower use as a result of fewer wet weather events resulting in less pumping.

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY25 Budget YTD September	FY24 Actuals September	FY25 Actual vs. FY25 Budget		Explanations
			\$	%	
Maintenance	9,426,931	10,661,722	1,234,791	13.1%	Maintenance was greater than budget by \$1.2 million or 13.1%, largely driven by the timing of project work. <i>Maintenance Services</i> were greater than budget by \$1.6 million driven by higher Plant & Machinery Services of \$2.0 million due to earlier than anticipated work performed for annual boiler maintenance and additional wicket gate repair work 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 Pipeline Services of \$204,000 due to less than anticipated paving services through September, Computer Services of \$140,000 and Building & Grounds Services of \$112,000 due to less than anticipated spending through September. <i>Maintenance Materials</i> were lower than budget by \$385,000 driven by Special Equipment Materials of \$564,000 due to the timing of purchasing hatch covers at Loring Road Covered Storage and HVAC Materials of \$110,000 due to less than anticipated purchases through September. These are partially offset by higher Warehouse Inventory of \$177,000 due to the need for spare parts and purchase of materials early due to long lead times, and Plant & Machinery Materials of \$137,000 due to greater than anticipated purchases through September.
Training & Meetings	149,667	69,010	(80,657)	-53.9%	Training & Meetings was lower than budget by \$81,000 or 53.9% primarily due to less than anticipated spending on meetings and conferences through September driven by MIS (\$71,000), and Procurement (\$11,000), partially offset by higher spending in Operations Administration of \$9,000.
Professional Services	2,847,216	2,327,837	(519,379)	-18.2%	Professional Services were less than budget by \$519,000 or 18.2% driven by lower Other Services of \$249,000 due to timing of services which includes the Disparity Study, Lab & Testing Analysis of \$140,000 and Computer Systems Consultant of \$107,000, both due to less than anticipated spending through September.
Other Materials	1,208,965	1,694,291	485,326	40.1%	Other Materials were greater than budget by \$485,000 or 40.1% driven by Computer Hardware of \$363,000 primarily due to earlier than anticipated purchasing of materials through September 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 \$116,000 was due to greater than anticipated lab equipment purchases through September.

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY25 Budget YTD September	FY24 Actuals September	FY25 Actual vs. FY25 Budget		Explanations
			\$	%	
Other Services	8,575,697	8,389,778	(185,919)	-2.2%	Other Services were lower than budget by \$186,000 million or 2.2% driven by Grit & Screenings Removal of \$158,000 and Sludge Pelletization of \$127,000 primarily due to lower quantities, and lower than anticipated Telecommunications of \$111,000. This underspending was partially offset by higher Members/Dues/Subscriptions of \$330,000 due to earlier than anticipated payments.
Total Direct Expenses	75,230,212	70,629,607	(4,600,605)	-6.1%	
<u>Indirect Expenses</u>					
Insurance	1,117,761	1,093,588	(24,173)	-2.2%	Higher premiums of \$20,000 offset by lower Payments/Claims of \$44,000 than budgeted.
Watershed/PILOT	4,880,952	4,563,216	(317,736)	-6.5%	Lower Watershed Reimbursement of \$1.4 million driven by lower spending on Wages & Salaries and Fringe Benefits.
HEEC Payment	1,838,571	1,838,568	(3)	0.0%	
Mitigation	455,891	455,891	-	0.0%	
Addition to Reserves	476,570	476,570	-	0.0%	
Pension Expense	21,264,519	21,264,519	-	0.0%	
Post Employee Benefits	-	-	-		
Total Indirect Expenses	30,034,264	29,692,352	(341,912)	-1.1%	
<u>Debt Service</u>					
Debt Service	111,648,713	110,813,868	(834,845)	-0.7%	Capital Financing was \$835,000 less than than budget as a result of lower than anticipated interest rates.
Debt Service Assistance	-	-	-		
Total Debt Service Expenses	111,648,713	110,813,868	(834,845)	-0.7%	
Total Expenses	216,913,189	211,135,827	(5,777,361)	-2.7%	

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY25 Budget YTD September	FY24 Actuals September	FY25 Actual vs. FY25 Budget		Explanations
			\$	%	
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%	Higher than estimated DI Water.
Other Revenue	635,352	651,647	16,295	2.6%	Other Revenue was \$16,000 or 2.6% greater than budget due to Miscellaneous Revenue of \$89,000, Penalties of \$24,000, Permit Fees of \$17,000, partially offset by Profit & Loss on Disposal of Equipment of \$90,000.
Rate Stabilization	-	-	-		
Investment Income	6,527,772	7,359,087	831,315	12.7%	Investment Income is over budget due to higher than budgeted interest rates and higher average balances.
Total Revenue	224,006,296	224,917,769	911,473	0.4%	
Net Revenue in Excess of Expenses	7,093,107	13,781,942	6,688,834		

ATTACHMENT 3
FY24 CIP Variance Report (\$000s)

	FY25 Budget September	FY25 Actuals September	Actuals vs. Budget		Explanations
			\$	%	
Wastewater					
Interception & Pumping (I&P)	\$3,520	\$1,911	(\$1,609)	-45.7%	<u>Less than planned spending</u> 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: \$306k (work scheduled for FY25 performed in FY24)
Treatment	\$15,045	\$13,301	(\$1,744)	-11.6%	<u>Less than planned spending</u> Clarifier Rehabilitation Phase 2 Construction: \$1.6M (equipment scheduled for FY25 received in FY24) DITP As-Needed Design: \$513k (lower than projected task order work) <u>Greater than planned spending</u> Digester & Storage Tank Rehabilitation - Design/ESDC: \$304k (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	\$2,379	\$423	(\$1,957)	-82.2%	<u>Less than planned spending</u> Fort Point Channel & Mystic: \$2.1M (timing of Community Managed CSO payments)
Other Wastewater	\$15,846	\$3,587	(\$12,259)	-77.4%	<u>Less than planned spending</u> I/I Local Financial Assistance: \$12.3M (less than anticipated requests for community grants and loans)
Total Wastewater	\$36,789	\$19,221	(\$17,569)	-47.8%	
Waterworks					
Drinking Water Quality Improvements	\$1,395	\$1,311	(\$84)	-6.0%	<u>Less than planned spending</u> CWTP Technical Assistance: \$499k (lower than projected task order work) <u>Greater than planned spending</u> CWTP Parapet Wall Repairs: \$412k (contractor progress greater than planned)

ATTACHMENT 3
FY24 CIP Variance Report (\$000s)

	FY25 Budget September	FY25 Actuals September	Actuals vs. Budget		Explanations
			\$	%	
Transmission	\$13,114	\$10,418	(\$2,697)	-20.6%	<u>Less than planned spending</u> Wachusett Lower Gatehouse Pipe & Boiler Replacement Construction: \$2.1M (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) WASM 3 - MEPA/Design/CA/RI: \$502k (less than planned consultant work) Program Support Services: \$338k (less than anticipated services) Watershed Land Acquisition: \$250k (less than planned land purchases) <u>Greater than planned spending</u> Waltham Water Pipeline Construction: \$1.8M (greater than planned contractor progress) Geotechnical Support Services: \$193k (greater than planned consultant progress)
Distribution & Pumping	\$6,622	\$7,263	\$640	9.7%	<u>Greater than planned spending</u> NEH Improvements CP-1: \$1.9M and New Connecting Mains CP3-Sections 23, 24 & 47 Rehabilitation: \$502k (work scheduled for FY24 including final paving performed in FY25) <u>Less than planned spending</u> Northern Extra High Service (NEH) - New Pipelines Legal: \$488k (less than planned legal expenses) Section 89/29 Replacement Construction: \$480k (less than planned contractor progress)
Other Waterworks	\$656	\$1,038	\$381	58.1%	<u>Greater than planned spending</u> Local Water Pipeline Financial Assistance Program: \$385k (greater than anticipated requests for community loans) <u>Less than planned spending</u> Steel Tank Improvements: \$198k (less than planned consultant progress)
Total Waterworks	\$21,788	\$20,029	(\$1,759)	-8.1%	
Business & Operations Support					

ATTACHMENT 3
FY24 CIP Variance Report (\$000s)

	FY25 Budget September	FY25 Actuals September	Actuals vs. Budget		Explanations
			\$	%	
Total Business & Operations Support	\$3,726	\$834	(\$2,892)	-77.6%	<u>Less than planned spending</u> Lawson Upgrade: \$728k (slower than anticipated vendor invoicing) As-Needed Design Contracts: \$441k (lower than projected task order work) MAXIMO Interface Enhancements: \$421k (less than anticipated completion of final work) Security Equipment & Installation: \$399k (delays with upgrades to communication circuits and Incident Management System, and less than anticipated fencing work)
Total MWRA	\$62,303	\$40,083	(\$22,220)	-35.7%	

STAFF SUMMARY


TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: October 23, 2024
SUBJECT: Amendment to the Eighty-Seventh Supplemental Bond Resolution



COMMITTEE: Administration, Finance & Audit

X VOTE
____ INFORMATION

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


Thomas J. Durkin
Director, Finance

RECOMMENDATION:

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.

DISCUSSION:

On February 21, 2024, the Board of Directors approved the Eighty-Seventh Supplemental Resolution authorizing the issuance of up to \$85,000,000 of Massachusetts Water Resources Authority General Revenue Bonds (Subordinated Series) to the Massachusetts Clean Water Trust ("Trust"). The Trust provides subsidized financing for water and wastewater capital projects to Massachusetts governmental entities. MWRA annually submits new projects to the Massachusetts Department of Environmental Protection to be considered for inclusion on the Clean and Drinking Water Intended Use Plans (IUP). At the time staff had identified a total of \$85 million of project funding from the 2022 and 2023 IUPs that would be funded through this authorization. As part of that transaction, the Trust provided \$8.0 million principal forgiveness loans using a portion of the funding Massachusetts received from the American Rescue Plan Act (ARPA). The ARPA funding was applied to projects on the 2022 and 2023 IUPs. MWRA has received a total of \$11.4 million in ARPA funding, resulting in debt service savings of over \$14.0 million.

Since February, MWRA has fully drawn down the funds available under the 2022 and 2023 IUP and is ready to start receiving funding from the 2024 IUP. Staff are seeking an increase in the borrowing authorization under the Eighty-Seventh Supplemental Resolution to complete interim borrowings with the Trust for the spending associated with the 2024 IUP. Staff would like to maximize MWRA's ability to borrow through interim loans since they are interest free and provide a lower cost of debt than MWRA's other short-term borrowing authorizations (tax-exempt commercial paper/Revolving Loan). Over the last several years the Trust has conducted its annual borrowing to permanently finance interim loans during the fall. This year the Trust anticipates

borrowing next January or February, at which time the interim loans associated with the 2022, 2023 and 2024 IUP will be permanently financed.

The permanent loans will have a 20-year maturity at a fixed interest rate of 2.15%, including the Trust administrative fee of 0.15%. The Trust also charges a loan origination fee of \$5.50 per \$1,000 to cover its costs of issuance.

BUDGET/FISCAL IMPACT:

There are sufficient funds available in the FY25 CEB to pay the debt service costs associated with these borrowings.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: October 23, 2024
SUBJECT: Delegation of Authority to Execute a Contract for the Purchase and Supply of Electricity for MWRA Interval Accounts



COMMITTEE: Administration, Finance, & Audit


 INFORMATION

 X VOTE


Michele S. Gillen

Director of Administration

Rebecca Weidman, Deputy Chief Operating Officer
Kristen Patneaude, Manager, Energy
Preparer/Title


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

MWRA has competitively procured electricity supply since 2001. The current contract for the Interval Accounts electricity supply expires in June 2025. In a commodity market where prices can change within short time periods, MWRA must be prepared to award a contract almost immediately after bids are received to lock in pricing. To ensure that MWRA is prepared to execute a replacement electricity supply contract during favorable market conditions, staff recommend that the Board authorize the Executive Director to award a contract to the successful bidder. Staff will report to the Board the bid results and any resulting electricity supply contract execution for the Interval Accounts.

RECOMMENDATION:

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.

DISCUSSION:

Based on MWRA account load profiles and prior consults with energy advisors, MWRA has established three distinct electricity supply contracts. The largest contract is the Deer Island account, which represents approximately 68% of MWRA's total purchased electricity load. MWRA is entering into a new three-year contract for the Deer Island electricity supply beginning in November 2024. The "Interval Accounts," which consist of 29 accounts including larger facilities (e.g., Carroll Water Treatment Plant, Clinton Treatment Plant, wastewater headworks, and water and wastewater pump stations) represent approximately 28% of MWRA's total purchased load, with an average purchased electricity volume of approximately 46,750 MWh/year,

the equivalent of nearly 6,900 Massachusetts homes' electricity use for one year. The existing two-year supply contract for the Interval Accounts expires in June 2025.

The third contract is the "Profile Accounts" for the smaller facilities (*e.g.*, CSO treatment facilities and small pump stations), representing 3% of MWRA's total purchased load. The current one-year contract expires in November 2024¹. The remaining <1% of MWRA's total purchased electric load consists of accounts that include small electrical devices such as meters, motorized valves, and cathodic protection. These accounts remain on basic service with the utilities, as there is no economic advantage to including them on competitive supply due to the administration required relative to the load size. There are also several accounts in municipal light plant districts, which prohibit customers from third-party supply of electricity.

Staff developed these different contract structures to optimize the Authority's overall procurement strategy, based on factors such as the account load sizes and operational characteristics of the facilities. Additionally, keeping these separate contract structures and staggered end dates help to mitigate the risk of procuring the majority of MWRA's electricity load bid at the same time in what continues to be a historically volatile and sometimes unpredictable market.

Contract Structure

Traditionally, Interval Accounts electricity supply bids have included a variety of hedging strategies: fully fixed rate; fully variable rate; and a blended fixed block plus variable.

The current Interval Accounts supply contract is structured as a blended structure with a 3.7 megawatt (MW) fixed price block, and the balance of the load purchased from the variable-rate spot market, plus ancillary charges as at-cost pass-through fees. This contract structure covers approximately 70% of the combined load with fixed block pricing and 30% via variable pricing in the ISO-NE real-time market. The Interval Accounts contract includes 29 accounts in three different load zones, and the block and ancillary charges are pro-rated to each account based on load and location. It has become increasingly challenging to audit the energy cost components under this blended rate structure.

To resolve this issue, staff are recommending that instead of pursuing bids for all three contract structures, bids only be taken for a 100% fixed rate strategy with a capacity "at cost" pass-through. Although locking in fixed pricing can carry a premium, it eliminates the risk taken when purchasing a commodity from a volatile market. Further, a capacity pass-through will allow the Carroll Treatment Plant (and potentially other large facilities) to continue to reduce plant load during congested grid periods and decrease or avoid these costs that are included in fixed rate supply pricing for the following year. This practice has historically saved the Carroll Treatment Plant approximately \$70,000 per year in avoided capacity charges.

The Interval Accounts electricity supply start date will be the first meter read date for enrollment on or after June 1, 2025 and bids will be sought for 12, 24 and 36 month terms.

¹ The procurement for a replacement contract for the Profile Accounts is in progress through the PowerOptions purchasing collaborative under [MGL Chapter 164 Section 137](#).

Renewable Energy Certificates

As required by the [Massachusetts Renewable Portfolio Standard](#), a minimum percentage of electricity supply must be from renewable resources. This renewable electricity is broken into two products- the electricity and the environmental attributes (renewable energy certificates or “RECs”). Historically, MWRA procured voluntary RECs above the state requirements, as a component of our sustainability efforts. In light of the changing REC landscape², and the Commonwealth’s focus on greenhouse gas reductions and decarbonization, the state guidance is to use resources to focus on reduction of onsite fossil fuel use instead of the procurement of voluntary RECs. Therefore, MWRA will not be seeking bids for additional RECs under this electricity supply contract, but will continue to monitor the REC market and consult with the Massachusetts Department of Energy Resources to determine whether REC purchases in the future are warranted.

Procurement Process

Staff propose to procure this electricity supply through a two-stage process. In Stage One, suppliers submit information in response to the minimum threshold requirements set forth in the Request for Bids, such as necessary regulatory approvals, investment grade ratings, and agreement to execute MWRA’s contract. Responsive Stage One bidders who meet the requirements are then eligible to participate in Stage Two and can submit executable bids on a future date.

Energy rates tend to fluctuate on a seasonal basis, and other factors influence the market, so it is difficult to select a fixed future date to capture potential market dips. For the greatest flexibility to react to market events, it is beneficial to monitor market pricing over time when looking to lock in fixed prices. This allows for the leveraging of market dips while limiting budget risk. Therefore, staff will monitor indicative pricing over time, rather than setting a predetermined bid date, to identify potential buying opportunities with the intent of locking in during a period of lower pricing. This strategy was recently used successfully to lock in pricing for MWRA’s Deer Island Account. As shown below in Figure 1, staff monitored indicative market pricing for several months this year, before locking in and executing a contract during a market decline in August.

² There is an undersupply of RECs, which leads to higher prices. The purchase of voluntary RECs generally comes from existing projects, and the grid is getting cleaner due to regulatory renewable supply requirements despite procurement of voluntary RECs.

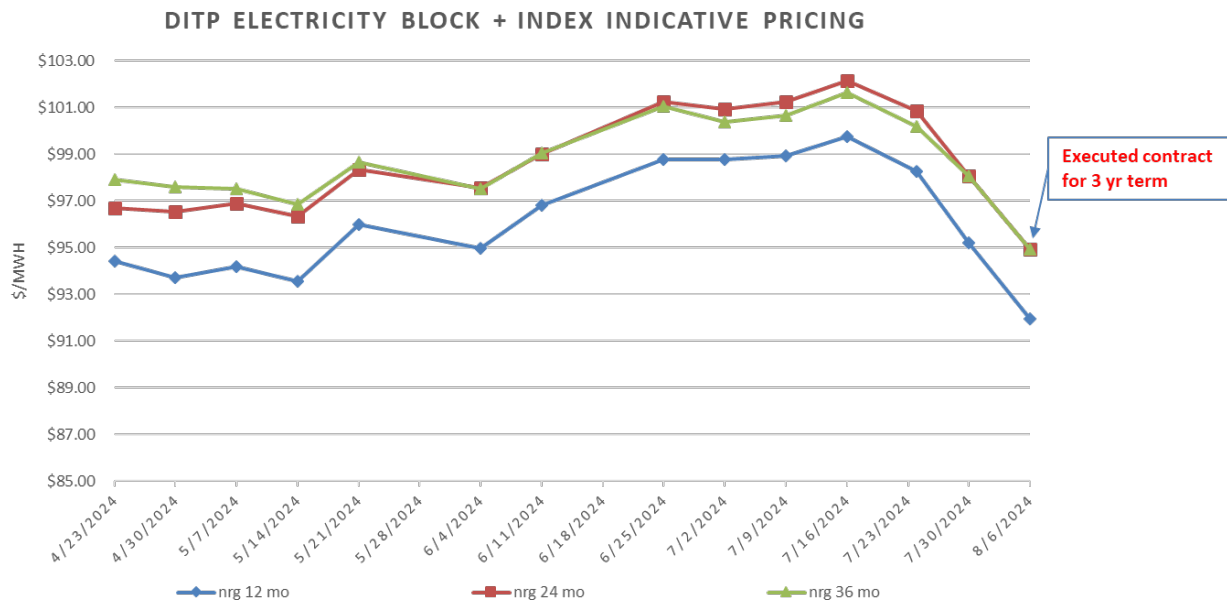


Figure 1 – Deer Island Electricity Supply Market Watch and Contract Execution

Staff have also looked at other electricity purchasing options available to state agencies and authorities, such as purchasing electricity through a collaborative or a state contract. While a collaborative may generate more interest from the market by offering energy providers a larger block of electricity to bid on, the Interval Accounts still appear to be large enough to warrant supplier interest and competitive rates when bid alone. MWRA’s Profile Accounts are currently under contract through the PowerOptions consortium program, as the number of competitive suppliers bidding on these smaller accounts has decreased over the past few years with fewer suppliers in the market (many suppliers have merged) and the combined load for the Profile Accounts being relatively small overall.

To ensure that MWRA is prepared to execute the electricity supply contract during favorable market conditions, staff recommend that the Board authorize the Executive Director to award a contract to the successful bidder.

BUDGET/FISCAL IMPACTS:

The Interval Accounts total electricity budget for FY25 is \$9.9 million. This amount includes approximately \$4.9 million for electricity supply and \$5.0 million for electricity delivery. The authorization staff are seeking today is for purchasing the Interval Accounts electricity supply, which represents approximately 20% of MWRA's total electricity budget.

Staff will assess the impact of the bids taken in comparison with the budgeted amounts and update the Board accordingly.

MBE/WBE PARTICIPATION:

There will be no MBE or WBE participation requirements established for this procurement due to limited opportunities for subcontracting.

STAFF SUMMARY


TO: Board of Director
FROM: Frederick A Laskey, Executive Director
DATE: October 23, 2024
SUBJECT: October 2024 PCR Amendments



COMMITTEE: Personnel and Compensation

Wendy Chu, Director of Human Resources
Preparer/Title

 INFORMATION
 X VOTE


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.

October 2024 PCR Amendments

There are five PCR Amendments this month.

Organizational Changes:

1. Title and grade change to one vacant position in the Administration Division, MIS Department from a Systems/Analyst Programmer III – ERP (Unit 6, Grade 11) to Systems/Analyst Programmer I (Applications) (Unit 6, Grade 9) to better meet staffing needs.
2. Title and grade change to one vacant position in the Operations Division, Engineering and Construction Department from a Senior Staff Engineer Structural (Unit 9, Grade 25) to Staff Engineer (Unit 9, Grade 19) to better meet staffing needs.
3. Title and grade change to one vacant position in the Operations Division, Engineering and Construction Department from a Program Manager, Water/ Wastewater Engineering (Unit 9, Grade 29) to Senior Engineer (Unit 9, Grade 23) to better meet staffing needs.

4. Title and grade change to one vacant position in the Operations Division, Engineering and Construction Department from a Program Manager, Water/ Wastewater Engineering (Unit 9, Grade 29) to Senior Engineer (Unit 9, Grade 23) to better meet staffing needs.
5. Title and grade change to one vacant position in the Finance Division, Rates and Budget Department from an Assistant Finance Manager (Unit 6, Grade 11) to a Payroll Specialist (Unit 6, Grade 10) in the Controller Department to better meet staffing needs and ensure payroll runs successfully each week.

BUDGET/FISCAL IMPACT:

The PCR amendments will have a favorable budgetary impact, with an annualized minimum savings of \$127,402.

ATTACHMENTS:

Job Descriptions

MASSACHUSETTS WATER RESOURCES AUTHORITY
POSITION CONTROL REGISTER AMENDMENTS
FISCAL YEAR 2024

PCR AMENDMENTS REQUIRING BOARD APPROVAL - October 23, 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	
B11	Administration MIS 8610096	V	T, G	Systems/Analyst Programmer III- ERP	6	11	Systems/Analyst Programmer I (Applications)	6	9	\$123,009	\$66,362	-	\$101,544	-\$56,647	-	-\$21,465	To better meet staffing needs and to build a career path.
B12	Operations Engineering & Construction 5525030	V	T, G	Senior Staff Engineer (Structural)	9	25	Staff Engineer	9	19	\$127,980	\$69,627	-	\$97,226	-\$58,353	-	-\$30,754	To better meet staffing needs and to build a career path.
B13	Operations Engineering & Construction 55250119	V	T, G	Program Manager, Water/ Wastewater Engineering	9	29	Senior Engineer	9	23	\$149,191	\$84,156	-	\$117,221	-\$65,035	-	-\$31,970	To better meet staffing needs and to build a career path.
B14	Operations Engineering & Construction 55250117	V	T, G	Program Manager, Water/ Wastewater Engineering	9	29	Senior Engineer	9	23	\$149,191	\$84,156	-	\$117,221	-\$65,035	-	-\$31,970	To better meet staffing needs and to build a career path.
B16	Finance Controller 4410025	V	T, G	Asistant Finance Manager	6	11	Payroll Specialist	6	10	\$123,008	\$73,040	-	\$111,765	-\$49,968	-	-\$11,243	To better meet staffing needs and ensure payroll runs successfully each week.
				BOARD TOTAL =	5					TOTAL:			-\$295,038		-	-\$127,402	

**MWRA
POSITION DESCRIPTION**



POSITION: Systems Analyst/Programmer III - (ERP) Enterprise Resource Planning

DIVISION: Administration

DEPARTMENT: Management Information System (MIS)

BASIC PURPOSE:

This position is responsible for analyzing, designing, developing, testing, implementing and maintaining software applications. This position is also responsible for the post-implementation support including incident, performance, capacity, continuity and problem management activities. The Systems Analyst/Programmer III-ERP is responsible for the preparation and maintenance of system documentation to be used by the IT staff and user community.

The Systems Analyst/Programmer III-ERP also serves as a team lead for assigned projects, maintains and upgrades project plans and schedules and ensures IT testing is scheduled and documented

SUPERVISION RECEIVED:

Works under the general supervision of the Program Manager. On specific IT projects may be supervised by a team lead or project manager.

SUPERVISION EXERCISED:

Exercises supervision of assigned vendor resources and IT project team.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

Application Development

- Reviews application design prior to buy or build decision to ensure service levels can be met and recommends any performance enhancements prior to implementation
- Codes, configures, implements, maintains and supports, new and upgrades to software applications (in-house and third party software) and interfaces to ensure processes and functionality of the applications comply with the organization's requirements, processes and standards.
- Develops and maintains technical documentation for applications.

Post-Implementation Support

- Supports the resolution of incidents and problems with software application functionality.
- Researches and corrects problems with the system applications code during production processing in an efficient and timely manner ensuring system recovery and integrity.
- Is available to execute and carry out IT Continuity and Disaster Recovery Plans
- Serves as team lead for assigned projects and updates/maintains project plans and schedules as required.

Mentoring & Professionalism

- Maintains professional interaction with the application development staff, user and extended IT community (i.e. project teams) to ensure adequate system functionality, promote team participation and encourage user confidence in the Application Development Staff's quality of service.
- Provides assistance to Systems Analysts/Programmer I and II personnel ensuring that all technical design work, coding and testing are done in a manner that meets or exceeds design and testing requirements and standards.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelor's degree program in management science, engineering management, computer science or related field; and
- (B) Five (5) to seven (7) years experience supporting enterprise wide applications; or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Extensive knowledge of programming languages, troubleshooting techniques, database structures, triggers and procedures, application server platforms, and database query tools.
- (B) Knowledge of the following is a plus: MS .Net, J2EE, Crystal Reporting, ORACLE, SQL Server and PL/SQL.
- (C) Knowledge of Infor Lawson or comparable system preferred.
- (D) Strong analytical and interpersonal skills
- (E) Excellent written and oral communication skills.

SPECIAL REQUIREMENTS:

- A valid Massachusetts driver's license.
- Information Technology Infrastructure Library (ITIL) Foundation Certification is required or the ability to obtain within one year.
- Formal training or certification in programming methodologies and System Development Life Cycle methodologies is required or the ability to obtain within one year.

TOOLS AND EQUIPMENT USED:

Office equipment as normally associated with the use of telephone, personal computers including word processing and other software.

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 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 and stand.

Specific vision abilities required by this job include close vision and color vision, and the ability to adjust focus.

WORK ENVIRONMENT:

The work 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 occasionally works in various field settings and in an office environment. The employee regularly works near moving mechanical parts, and is occasionally exposed to risk of vibration.

The noise level in the work environment is very loud in field settings, moderately loud at other work locations and moderately quiet at office settings.

June 2022

**MWRA
POSITION DESCRIPTION**

NEW

POSITION: Systems Analyst/Programmer I (Applications)

DIVISION: Administration

DEPARTMENT: MIS

BASIC PURPOSE:

The Systems Analyst/Programmer I is responsible for administration, support and configuration of Commercial off-the-shelf (COTS) software applications. This position is responsible for ensuring that these business applications meet their goals and expected service levels. The Systems Analyst/Programmer I analyzes, develops and implements configurations according to requirements. Adheres to protocols and procedures for the administration and support of COTS applications and complies with company security policies.

SUPERVISION RECEIVED:

Works under the general supervision of a Senior Program Manager, Application Group. .

SUPERVISION EXERCISED:

None.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Assists with the administration, support and development of several COTS applications including the OpenText Enterprise Content Management (ECM) application.
- Assists with the planning and execution of system upgrades and migrations.
- Tests software releases prior to production implementation.
- Troubleshoots technical problems and provides support to users.
- Documents system configurations and system operations and maintenance procedures.
- Assists with the creation of release packages for system changes when transitioning to the production environment.
- Utilizes the Software Development Lifecycle to implement solutions.
- Implements and maintains security measures to protect the organization's data.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:**Education and Experience:**

- (A) A Bachelor's degree in computer science or related field; and
- (B) Two (2) years of computer experience including one year supporting COTS applications;
or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- Programming experience in the following is desirable: Python, C#, XML, SQL or other programming or markup language.
- Understanding of COTS application administration processes and concepts.
- Experience with OpenText ECM or an equivalent Enterprise Content Management system is a plus.
- Experience creating technical documentation, standards and procedures with regard to system administration, support and development.
- Strong organizational skills and the ability to work independently, to perform routine daily work and handle tickets as well as prioritize assignments.
- Good problem solving skills and effective verbal and written communication skills.
- Demonstrated proficiency in Microsoft Office Suite, including Word, Excel, PowerPoint and Access.
- Experience using web conferencing and collaboration tools such as WebEx.

SPECIAL REQUIREMENTS:

- A valid Massachusetts Class D Motor Vehicle Operators License.

At least one certification from the following list or the ability to obtain within one year.

- ITIL – ITIL Foundations Certification version 4.
- MPM - Master Project Management
- CSA – OpenText Content Server Administrator Certification

TOOLS AND EQUIPMENT USED:

Office equipment as normally associated with a professional office environment including the use of telephones, personal computers, including 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 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 and stand.

The employee must occasionally lift and/or move up to 10 pounds. Specific vision abilities required by this job include close vision and color vision, and the ability to adjust focus.

WORK ENVIRONMENT:

The work 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 is a moderately quiet at office setting.

September 2024

**MWRA
POSITION DESCRIPTION**

OLD

POSITION: Senior Staff Engineer, Structural

DIVISION: Operations

DEPARTMENT: Engineering & Construction

BASIC PURPOSE:

Provides structural engineering and project management for Operations Division capital and maintenance projects and technical services.

SUPERVISION RECEIVED:

Works under the general supervision of a Program Manager or Senior Program Manager.

SUPERVISION EXERCISED:

Exercises close supervision and direction to engineers and drafters on assigned projects.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Performs in-house planning, design, and management of various water, wastewater, and facilities repair, improvement and replacement projects, and in the investigation and resolution of construction and operations issues.
- Provides structural engineering support to the operating departments for the operations and maintenance programs of division facilities.
- Provides review and comments on 8(m) permit applications prepared by owners and/or consultants.
- Participates in the design of in-house projects including development of project plans, specifications, cost estimates and schedules.
- Maintains organized and detailed central files on assigned projects.
- Establishes design criteria and applicable code requirements and performs analytical calculations for assigned work.
- Develops procedures to ensure safe and efficient operations, maintenance and testing practices.
- Provides technical review of consultant prepared reports and design projects, contractor shop drawings and O&M (Operations and Maintenance) manuals.

- Participates in the preparation of standard specifications.
- Participates in field investigations to verify and obtain information on existing facilities, structures, systems and equipment.
- Supervises and manages junior professional staff, including assigning tasks and evaluating performance, as assigned.
- Prepares equipment and material quantity takeoffs for cost estimates.

SECONDARY DUTIES:

- Performs other related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) Knowledge of principles of and practices of structural engineering as normally attained through a Bachelor's Degree in civil engineering, structural engineering, or a related field; and
- (B) Demonstrated knowledge of water and wastewater treatment plant, pump station, and pipeline design and construction as acquired through five (5) to seven (7) years of experience, including (2) years of supervisory or project management experience; or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Knowledge of structural engineering work related to water and wastewater infrastructure and facilities design.
- (B) Knowledge of codes and standards such as ACI, AISC, PCA, PCI, BOCA, AASHTO, AREA, OSHA, Mass. State Building and Highway codes, NETWPCC, ASCE and WEF Manual of Practice.
- (C) Proficiency with personal computers and knowledge of Microsoft Office Suite and engineering applications software.
- (D) CADD Systems knowledge and experience preferred.
- (E) Excellent interpersonal, oral and written communication skills.

SPECIAL REQUIREMENTS:

A valid Massachusetts Class D Motor Vehicle Operators License.

Massachusetts Registered Professional Engineer license preferred.

TOOLS AND EQUIPMENT USED:

Office machines as normally associated with the use of telephone, personal computer including word processing and other software, copy and machines.

PHYSICAL DEMANDS:

The physical demands described 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 sit and talk or hear. The employee is frequently required to use hands to finger, handle or operate objects, including office equipment, controls and reach with hands and arms. The employee is occasionally required to stand and walk.

The employee may occasionally be required to lift and/or move up to ten 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 employee encounters while performing the essential functions of this job. There are no specific environmental conditions noted.

The noise level in the work environment is usually loud in a field setting and moderately quiet in an office setting.

March 2021

**MWRA
POSITION DESCRIPTION**

NEW

POSITION: Staff Engineer

DIVISION: Operations

DEPARTMENT: Engineering & Construction, Planning, Operations Engineering, Capital Engineering Deer Island, Metro Process Control

BASIC PURPOSE:

Participates in the development, execution, and management of various electrical engineering, engineering or construction engineering and maintenance projects. Provides engineering or electrical engineering expertise and data analysis for the planning, design, and construction of projects for wastewater and waterworks systems and facilities.

SUPERVISION RECEIVED:

Works under the general supervision of senior staff.

SUPERVISION EXERCISED:

None.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Works on tasks related to the evaluation, planning, design, electrical modification / replacement or construction of facilities or equipment for wastewater treatment plants, wastewater pumping stations, CSO facilities, headworks facilities, collection system components, water treatment facilities, water pumping stations, distribution and transmission lines, and support buildings and equipment.
- Participates in the preparation of concept and preliminary design reports, designs, and cost estimates. Participates in the development, implementation and monitoring of construction and service contracts, plans and specifications for proposed electrical modifications / replacements, permit applications and permits. Participates in shop drawing reviews.
- Utilizes Authority databases to gather and summarize facility and system operational data and assists senior engineering staff with evaluation and presentation of operational data.
- Participates in the development of calculations, design documents and the gathering of information for inclusion in engineering reports, construction activities, proposed electrical

modifications / replacements, technical or planning studies, and system and facility evaluations.

- Participates in the engineering resolution and recommendations to electrical engineering problems.
- Participates in overseeing the work of professional engineering consultants, including electrical engineering consultants, as well as construction firms for quality and responsiveness of work products, budgets and schedules, and conformance to contract terms.
- Participates in the inspection of construction, electrical or maintenance work for conformance to plans and specifications, and makes minor revisions to meet local conditions encountered in field; plans sequence of work with contractors on jobs and submits progress reports. Acts as a Resident Engineer on minor construction projects.
- Requires participation in emergency response to any/all MWRA emergencies if assigned to Operations Engineering or Metro Process Control.
- Participates in contract administration tasks.

SECONDARY DUTIES:

- Drafts internal or external memoranda, correspondence, reports, and specifications.
- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelors' degree in electrical engineering, engineering or related field required; and
- (B) One (1) to two (2) years of design, construction or electrical engineering experience preferred: or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Familiarity with computer software packages such as MS Word, Excel, and AutoCad.
- (B) Demonstrated written and oral communication skills.

SPECIAL REQUIREMENTS:

Valid Mass Class D Driver's license for Operations Engineering and Construction Departments.

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 occasionally 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.

February 2018

**MWRA
POSITION DESCRIPTION**

OLD

POSITION: Program Manager (Water or Wastewater Engineering)

DIVISION: Operations

DEPARTMENT: Engineering and Construction

BASIC PURPOSE:

Supervises project teams in the department to oversee professional engineering and design projects related to the rehabilitation and capital improvement of waterworks and wastewater facilities and infrastructure from conceptual planning through construction. Additionally, manages engineering and design projects related to the rehabilitation and capital improvement of water and wastewater facilities and infrastructure.

SUPERVISION RECEIVED:

Works under the general supervision of a Senior Program Manager in the Engineering and Construction Department.

SUPERVISION EXERCISED:

Exercises close supervision of a staff of professional and technical employees and or consultants.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Oversees projects, including the planning and design of rehabilitation and capital engineering projects for waterworks and wastewater facilities and pipelines. Additionally, manages the planning and design phases of assigned water and wastewater engineering and or maintenance projects including, feasibility and environmental impact reports, detailed plans and specifications, permitting, project schedules, technical assistance, progress review and evaluation.
- Oversees the work of professional engineering consultants, including all work products for quality of work, budget, schedule, and compliance with contractual terms and MWRA objectives and policies.
- Supervises and manages professional staff, including assignment of projects, evaluation of performance, and staff development planning. Provides technical and administrative assistance to staff in the development and management of projects which include design and

engineering services during construction of new and rehabilitation water and wastewater projects, development of maintenance and operations procedures and working closely with MWRA Occupational Health and Safety staff, development of safety procedures.

- Supervises professional multi-discipline engineering work of substantial difficulty and importance, requiring application of professional engineering principles and the exercise of independent engineering judgment.
- Oversees and coordinates cooperative project development with other MWRA divisions and departments to ensure complete and coordinated projects. Coordinates projects with communities, government agencies and other MWRA departments. Provides technical information and assistance. Addresses professional and community groups and initiates outreach projects as required.
- Participates in consultant selection procedures and contract negotiations for projects. Additionally, oversees all phases of consultant selection for assigned projects including development of scope of services, specifications, cost estimates, work schedules, negotiations, and preparations of contract award recommendations. Ensures compliance with contract budgets, schedules and terms.
- Prepares annual and supplementary budget requests for the projects in the Capital Improvement Program. Oversees and reviews projects' budgets and schedules for compliance with established department, division, and MWRA program goals.
- Ensures compliance with MWRA procedures and policies, regulatory requirements and applicable engineering standards. Ensures all project activities are coordinated with MWRA divisions and departments, outside regulatory and permitting agencies and communities, as appropriate.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelor's degree in civil or related engineering field; and
- (B) At least seven (7) years of civil engineering experience of which three (3) years must be in a supervisory or project management capacity; or
- (C) Any equivalent combination of education and experience.

Necessary Knowledge, Skills and Abilities:

- (A) Knowledge of principles and practices of engineering.
- (B) Understanding of issues related to design, construction and operation of water and wastewater facilities and infrastructure.
- (C) Demonstrated ability to work effectively as part of a project team and also to function independently with minimal supervision.
- (D) Knowledge of Massachusetts bidding laws, including M.G.L Chapter 30 and Chapter 149 construction bidding regulations.
- (E) Familiarity with computer software such as Word and Excel.
- (F) Proven interpersonal, managerial, written and oral communications skills.

SPECIAL REQUIREMENTS:

A valid Massachusetts Class D Motor Vehicle Operators License.

Registered Massachusetts Professional Engineer preferred.

TOOLS AND EQUIPMENT USED:

Office machines as normally associated with the use of telephone, personal computer, including word processing and other software, copy fax machine, measuring equipment, light tools and mobile radio.

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 sit and to use hands to finger, handle, feel or operate objects, tools or controls. The employee is frequently required to talk or hear. The employee is occasionally required to stand, walk, and reach with hands and arms.

The employee must occasionally lift and/or move up to 10 pounds. There are no special visual requirements for this job.

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 occasionally 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 loud in field setting and moderately quiet in an office setting.

July 2024

**MWRA
POSITION DESCRIPTION**



POSITION: Senior Engineer (Engineering & Construction)

DIVISION: Operations

DEPARTMENT: Engineering & Construction

BASIC PURPOSE:

With minimal supervision, manages, and performs planning, design, and construction administration services for various water and wastewater engineering projects as part of a project team.

SUPERVISION RECEIVED:

Works under the general supervision of the Program Manager.

SUPERVISION EXERCISED:

May supervise professional employees or interns.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Manages, with minimal supervision, planning, permitting, and design of assigned engineering projects, including facilities or equipment for water and wastewater treatment plants, pumping stations, CSO facilities, collection systems components, water works pump stations, distribution and transmission lines and supporting buildings.
- Supervises professional engineering work of substantial difficulty and importance, including the preparation of reports and contract plans and specifications requiring the exercising of independent engineering judgment.
- Manages, with minimal supervision, all phases of consultant selection and supervision of professional engineering consultant contracts, including the development of scope of services, plans and specifications, cost estimates, work schedules, technical review of consultant work, negotiations, and preparation of contract award recommendations. Ensures compliance with contract budgets, schedules, and terms.

- Performs planning and design in the development of reports and construction contract documents for waterworks and wastewater systems and facilities.
- Prepares environmental permit applications and represents the MWRA during permitting phase.
- Initiates new projects and prepares capital or current expense budget request as required.
- Directs and supervises junior staff to complete tasks and assignments on engineering projects.
- Coordinates projects with communities, external public interest groups, government agencies, and other MWRA departments. Provides technical information and assistance. May address professional and community groups and initiate outreach projects.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelor's degree in civil, mechanical, sanitary or environmental engineering or a related field; and
- (B) A minimum of four (4) years of experience in facilities planning, design and construction of waterworks and wastewater systems and facilities; or
- (C) Any equivalent education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Demonstrated ability to work effectively as part of an engineering team, to develop and maintain productive working relationships with external parties, and to function independently with minimal supervision.
- (B) Knowledge of local, state and federal regulations as applicable to the planning, design and construction of pump stations, interceptors and water lines.

- (C) Knowledge of Massachusetts bidding laws including M.G.L. Chapter 30 and 149 construction bidding regulations preferred.
- (D) Experience in GIS, Arcmap, AutoCAD, and WebEx preferred.
- (E) Proficiency with personal computers, handheld computer devices, and knowledge of Microsoft Office Suite. Proficiency in project management software.
- (F) Excellent interpersonal, oral, and written communication skills.

SPECIAL REQUIREMENTS:

A valid Massachusetts Class D driver's license.

Registration as an Engineer-in-Training (EIT) preferred.

TOOLS AND EQUIPMENT USED:

Office machines as normally associated with the use of telephone, personal computer including word processing and other software, copy and machines.

PHYSICAL DEMANDS:

The physical demands described 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 sit and talk or hear. The employee is frequently required to use hands to finger, handle or operate objects, including office equipment, controls and reach with hands and arms. The employee is occasionally required to stand and walk.

The employee may occasionally be required to lift and/or move up to ten 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 employee encounters while performing the essential functions of this job. There are no specific environmental conditions noted.

The noise level in the work environment is usually loud in a field setting and moderately quiet in an office setting.

November 2023

**MWRA
POSITION DESCRIPTION**



POSITION: Assistant Finance Manager (CIP)

DIVISION: Finance

DEPARTMENT: Rates and Budget

BASIC PURPOSE:

Manages the Authority's Capital Improvement Plan (CIP) Budget development, control, and analysis process; facilitates resolution of financial issues between CEB and CIP; assists in overseeing the work of the Finance Unit in the absence of the Budget Manager.

SUPERVISION RECEIVED:

Works under the general supervision of the Budget Manager.

SUPERVISION EXERCISED:

Exercises close supervision of the Senior Financial Analyst.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Manages the process for developing, monitoring, reviewing, and justifying the Authority's multi-billion dollar Capital Improvement Program (CIP) Budget.
- Prepare and review budget deliverables for the CIP, including budget submissions and budget documents.
- Manages the process for developing and justifying year-end capital expenditure projections.
- Facilitates the resolution of financial issues affecting the CIP.
- Briefs Management on CIP issues and recommends allocation of resources to program areas.
- Manages special division-wide analyses and issues regarding the CIP.
- Acts as liaison between Engineering and Construction and the Budget Department on all matters relating to the CIP.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelor's degree in accounting, business administration, finance, public administration, or related field. Advanced degree preferred; and
- (B) At least five (5) to seven (7) years directly related experience including at least one (1) year experience in managing financial processes in a complex organization. Quantitative analysis experience is required; or
- (C) Any equivalent combination of education and experience.

Necessary Knowledge, Skills and Abilities:

- (A) Knowledge of management practices and budgetary, financial, and accounting principles and practices.
- (B) Demonstrated written, organizational, interpersonal, planning, and negotiation skills.
- (C) Knowledge of and extensive experience with spreadsheet and database software including design and use is required.
- (D) Awareness and sensitivity to financial, political, and legal constraints and issues faced by public sector organizations is preferred.

SPECIAL REQUIREMENTS:

None.

TOOLS AND EQUIPMENT USED:

Office machines 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 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.

There are no requirements that weight be lifted or force be exerted in the performance of this job. Specific vision abilities required by this job include close 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 setting.

December 2019

**MWRA
POSITION DESCRIPTION**

NEW

POSITION: Payroll Specialist

DIVISION: Finance

DEPARTMENT: Controller

BASIC PURPOSE:

Assists the Deputy Payroll Manager in providing accurate and timely payroll processing for all MWRA employees. Advises employees in payroll issues and tax matters. Handles maintenance of all payroll records, tax and other regulatory reports and related payroll reports. Provides day-to-day support, troubleshooting and special project assistance. Oversees the development, maintenance and use of information and tracking systems used by the department.

SUPERVISION RECEIVED:

Works under the general supervision of the Deputy Payroll Manager

SUPERVISION EXERCISED:

Task Specific, at the direction of the Deputy Payroll Manager

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Maintains the procedures and control of the weekly payroll processing and maintains the payroll records for approximately 1200 employees. Prepares, verifies and reconciles all payroll data input and output.
- Assists the Deputy Payroll Manager in establishing and maintaining internal payroll controls and ensuring compliance with all MWRA policies, procedures and union contracts. Ensures that payroll operations reflect the current federal and state tax and other regulatory requirements.
- Reviews the accuracy of the weekly time sheets and all related payroll changes. Oversees the preparation of the payroll-related changes.
- Maintains all payroll system transaction logs. Assists in maintenance of all payroll system table changes and monitoring of the system control.
- Reconciles and distribute all payroll weekly and monthly reports such as deduction registers, and other payroll management reports.
- Supervises and conducts the payroll control and reconciliation of all weekly/monthly mandatory and voluntary deductions.

- Coordinates, controls and reconciles the weekly payroll/AP interface with the accounts payable unit.
- Reviews retroactive payment calculations on employee changes based on the information furnished by the Human Resources Department.
- Oversees the preparation of the industrial accident wage schedule, wage information for retirement boards and verification of employment.
- Prepares payment requests for all payroll deduction such as deferred compensation, union dues, retirements, MBTA, parking, etc.
- Oversees the workers compensation benefit analysis between payroll and workers compensation administration.
- Responds to payroll inquiries from various internal and external sources, and provides timely assistance as required.

SECONDARY DUTIES:

Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A four (4) year degree in accounting, business or a related field is required; and
- (B) Five (5) to seven (7) years related experience, of which a minimum of two (2) years must be in a supervisory or managerial capacity; or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Understanding of payroll regulations, principles and practices.
- (B) Knowledge of automated payroll systems and various personal computer software, including MS Word, Excel and Access.
- (C) Excellent interpersonal, written and oral communication skills are required.

SPECIAL REQUIREMENTS:

None.

TOOLS AND EQUIPMENT USED:

Office machines 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 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.

There are no requirements that weight is lifted or force is exerted in the performance of this job. Specific vision abilities required by this job include close 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.

April 2013


STAFF SUMMARY

TO: Board of Director
FROM: Frederick A. Laskey, Executive Director
DATE: October 23, 2024
SUBJECT: Extension of Contract Employment, MIS



COMMITTEE: Personnel and Compensation

Wendy Chu, Director of Human Resources
Preparer/Title

 INFORMATION
 X VOTE

Michele S. Gillen
Director, Administration

RECOMMENDATION:

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).

DISCUSSION:

Ms. Laura Makary currently serves as a Contractor in the MIS Department as a Customer Support Technician I. She began working as a contractor on October 30, 2023. During her time as a contractor, Ms. Makary has worked on a number of projects such as the new website design, the Electronic Content Management system and our mobile device upgrade project. Ms. Makary also provides daily end user support as needed.

Ms. Makary is currently assigned to work on several projects, none of which will be completed by October 30, 2024. In order to ensure completion of these projects with minimal disruption and in a manner that maintains consistency, the Authority seeks to extend Ms. Makary's employment contract beyond one year. Pursuant to MWRA's Hiring Policy (HR.10), all contract extensions after the initial year must be approved by the Personnel and Compensation Committee and Board of Directors. It is anticipated that the projects Ms. Makary is working on can reasonably be completed by January 24, 2025.

BUDGET/FISCAL IMPACT:

There are sufficient funds in the approved FY25 Wages and Salaries budget for this position.