



MASSACHUSETTS WATER RESOURCES AUTHORITY

Charlestown Navy Yard
100 First Avenue, Building 39
Boston, MA 02129

Frederick A. Laskey
Executive Director

Chair: K. Theoharides

Vice-Chair: J. Carroll

Secretary: A. Pappastergion

Board Members:

C. Cook

P. Flanagan

J. Foti

B. Peña

H. Vitale

J. Walsh

P. Walsh

J. Wolowicz

BOARD OF DIRECTORS' MEETING

To be Held on Wednesday, March 16, 2022

Time: 1:30pm

To be Held Virtually

Pursuant to An Act Relative to Extending Certain COVID-19
Measures Adopted During the State of Emergency.

WebEx Meeting Link (Registration Required)

<https://mwra.webex.com/mwra/onstage/g.php?MTID=e7af25c60406447436151d459b4b5b2b3>

Event Number: 2335 151 6122

Event Password: 31622

AGENDA

I. APPROVAL OF MINUTES

II. REPORT OF THE CHAIR

III. REPORT OF THE EXECUTIVE DIRECTOR

IV. EXECUTIVE SESSION

i. Approval of February 16, 2022 Executive Session Minutes

A. Litigation

1. February 23, 2022 Notice of Intent to File Suit from Conservation Law Foundation (CLF), TRAC Enforcement

B. Collective Bargaining

1. Approval and Ratification of Certain Collective Bargaining Agreements

V. PERSONNEL AND COMPENSATION

A. Approvals

1. PCR Amendments – March 2022

2. Appointment of Manager, Occupational Health & Safety

Telephone: (617) 242-6000

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VI. ADMINISTRATION, FINANCE & AUDIT

A. Information

1. Delegated Authority Report – February 2022
2. FY2022 Financial Update and Summary as of February 2022

B. Contract Amendments/Change Orders

1. Renewable and Alternative Energy Portfolio Services: Next Grid Markets, LLC, Contract RPS-68, Amendment 3

VII. WASTEWATER POLICY & OVERSIGHT

A. Information

1. Infiltration/Inflow Local Financial Assistance Program Annual Update

B. Approvals

1. Approval of Memorandum of Agreement with Massachusetts Bay Transportation Authority, ADA Compliant Bus Offload Area at Public Access Parking Lot, Deer Island Treatment Plant

C. Contract Awards

1. Preferred Service Agreement for the Combustion Turbine Generators: Mitsubishi Power Aero LLC

VIII. WATER POLICY & OVERSIGHT

A. Information

1. Update on Lead and Copper Rule Regulatory Issues
2. Local Water System Assistance Program Annual Update

IX. CORRESPONDENCE TO THE BOARD

X. OTHER BUSINESS

XI. ADJOURNMENT

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the Board of Directors

February 16, 2022

A meeting of the Massachusetts Water Resources Authority (“MWRA”) Board of Directors was held on February 16, 2022. The meeting was conducted virtually, pursuant to Chapter 20 of the Acts of 2021, An Act Relative to Extending Certain COVID-19 Measures Adopted During the State of Emergency. Chair Theoharides presided remotely. Also participating remotely from the Board were Messrs. Cook, Flanagan, Foti, Pappastergion, Peña, Vitale, J. Walsh, and Ms. Wolowicz. Messrs. Carroll and P. Walsh were absent.

MWRA staff in attendance virtually included Frederick Laskey, Executive Director; Carolyn Francisco Murphy, General Counsel; David Coppes, Chief Operating Officer; Carolyn Fiore, Deputy Chief Operating Officer; Thomas Durkin, Director of Finance; Michele Gillen, Director of Administration; Kathy Murtagh, Director, Tunnel Redundancy; Paula Weadick, Director, MIS; Stephen Estes-Smargiassi, Director, Planning and Sustainability; Valerie Moran, Director, Waterworks; Cori Barrett, Director, Construction; John Colbert, Chief Engineer; Patterson Riley, Special Assistant for Affirmative Action; Tomeka Cribb-Jones, Associate Special Assistant for Affirmative Action; Rebecca Weidman, Director, Environmental and Regulatory Affairs; Andrea Murphy, Director, Human Resources; Leo Norton, Assistant Manager, Rates, Revenue and Finance; Michael Cole, Director, Budget; Matthew Horan, Deputy Director of Finance/Treasurer; Douglas Rice, Director, Procurement; Stephen Cullen, Director, Wastewater; Brian Kubaska, Assistant Director, Engineering; and Assistant Secretaries Ria Convery and Kristin MacDougall. Vandana Rao, Executive Office of Environmental Affairs (EEA), and Joseph Favaloro, MWRA Advisory Board, were also in attendance virtually.

Chair Theoharides called the meeting to order at 1:03pm. MWRA General Counsel Francisco Murphy took roll call of Board Members in attendance. The Chair announced that except for Executive Session, the meeting was open to the public virtually, via a link posted on MWRA’s website (www.mwra.com). She added that the meeting would be recorded, and that the agenda and meeting materials were available on MWRA’s website. She also announced that the meeting would move into Executive Session after the Executive Director’s report, and that the Open Session would resume after the adjournment of Executive Session.

General Counsel Francisco Murphy explained that all motions would be individually presented and given an opportunity for discussion and deliberation; further, that after discussion and deliberation, any Board member could request an individual roll call vote on that motion, where Board Members could vote affirmatively or in the negative, or abstain from voting. She also said that if no request for an individual vote were made or concerns raised, the motion would advance for an omnibus roll call vote at the conclusion of all the presentations.

APPROVAL OF JANUARY 19, 2022 MINUTES

A motion was duly made and seconded to approve the minutes of the Board of Directors’ meeting of January 19, 2022. Chair Theoharides called for any questions, discussion, or objections. Hearing none, she referred the motion to an omnibus roll call vote. (ref. I)

REPORT OF THE CHAIR

Chair Theoharides commended the MWRA Biobot Wastewater Covid-19 Tracking program. She then reported that American Recovery Act funds were starting to move into channels for funding projects across the Commonwealth. (ref. II)

REPORT OF THE EXECUTIVE DIRECTOR

MWRA Executive Director Frederick Laskey announced that MWRA would hold a virtual public briefing on the findings of its Combined Sewer Overflow (CSO) Post-Construction Monitoring and Performance Assessment on Thursday, February 17, 2022. He noted that staff expected more public participation than usual at the hearing. He provided a brief update on the status of the MWRA CSO Control Plan and said that staff would report back to Board Members on any action items from the briefing. Mr. Laskey and General Counsel Francisco Murphy then reminded Board Members that they could, at their discretion, shorten long motions by moving to adopt recommendations in dated staff summaries as presented and filed with the records of the meeting. Finally, Mr. Laskey thanked Chair Theoharides for her ongoing support of the Biobot program. (ref. III)

EXECUTIVE SESSION

Chair Theoharides requested that the Board move into Executive Session to discuss real estate and litigation, since open session could have a detrimental effect on the bargaining and litigation positions of the Authority. She announced that the planned topics of discussion in Executive Session were watershed land acquisition, Prison Point Contract 7462, the budgets and terms for outside counsel for DPU matters and Cross Harbor Cable litigation, and an annual litigation and claims summary. She announced 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.

Ms. Francisco Murphy reminded Board members that under the Open Meeting Law members who were participating remotely in Executive Session must state that no person is present or able to hear the discussion at their remote location, and that 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 is present or able to hear the 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>
Theoharides		
Cook		
Flanagan		
Foti		
Pappastergion		

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

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

The Board moved to Executive Session to discuss real estate and litigation, since discussing such in Open Session could have a detrimental effect upon the bargaining and litigation positions of the Authority.

*** EXECUTIVE SESSION ***

The meeting entered Executive Session at 1:11pm and adjourned at 1:29pm.

*** CONTINUATION OF OPEN SESSION ***

Open Session resumed at 1:30pm. Chair Theoharides presided.

WATER POLICY AND OVERSIGHT

Information

Report on 2021 Water Use Trends and Reservoir Status

MWRA Director of Planning and Sustainability Stephen Estes-Smargiassi gave a presentation on water use trends and reservoir status for 2021, including total consumption by MWRA communities; daily system demand; City of Boston water use; Boston's share of total demand; fully-supplied community demand; the annual base and outdoor use of fully-supplied communities; the five year running average of reservoir withdrawals; and Quabbin reservoir volumes.

There was discussion about the methodology for calculating safe yield, the hypothetical effects of climate change on safe yield, and the financial implications of Covid-related reduced water demand. (ref. V A.1)

Hearing no further discussion, Committee Chair Cook proceeded to the next agenda item.

Metropolitan Redundancy Interim Improvements Projects Update

MWRA Director of Waterworks Valerie Moran and MWRA Director of Construction Cori Barrett presented a status update on Metropolitan Redundancy Interim Improvement projects, including the Commonwealth Avenue Pumping Station; New Low Service Pumps 4 and 5; a new service line connection to Low Service WASM 1 and 2; improvements to Low Service pressure reducing

valves and PRV vaults; Top of Shafts 6, 8 and 9A interim improvements; WASM 3 pipeline rehabilitation; and Chestnut Hill Pump Station improvements.

Mr. Cook commended the project team.

Chair Theoharides asked if there was further discussion or any objections. Hearing none, she advanced the motion to an omnibus roll call vote. (ref. V A.2)

Contract Awards

Northern Extra High Pressure Zone Improvements Section 63 (Lexington): Albanese D&S, Inc., Contract 6522

A motion was duly made and seconded to approve the award of Contract 6522, Northern Extra High Pressure Zone Improvements Section 63 (Lexington), to the lowest responsible and eligible bidder, Albanese D&S, Inc. and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of \$11,737,000 for a contract term of 840 calendar days from the Notice to Proceed.

MWRA Chief Engineer John Colbert presented an overview of the proposed project to provide water system redundancy and a connection to Burlington, and the procurement process.

There was brief discussion about the location of a Town of Lexington pipeline.

Chair Theoharides asked if there was further discussion or any objections. Hearing none, she advanced the motion to an omnibus roll call vote. (ref. V B.1)

Contract Amendments/Change Orders

John J. Carroll Water Treatment Plant Sodium Hypochlorite System Modifications: Harding & Smith, LLC, Contract 7085H, Change Order 5

A motion was duly made and seconded to authorize the Executive Director, on behalf of the Authority, to approve Change Order 5 to Contract 7085H, John J. Carroll Water Treatment Plant Sodium Hypochlorite System Modifications, with Harding & Smith, LLC for a not-to-exceed amount of \$140,000, increasing the contract amount from \$1,865,917.47 to \$2,005,917.47, and extending the contract term by 150 calendar days from February 7, 2022 to July 7, 2022. Further, it was moved and seconded to authorize the Executive Director to approve additional change orders as may be needed to Contract 7085H in an amount not to exceed the aggregate of \$250,000 and 180 days in accordance with the Management Policies and Procedures of the Board of Directors.

Ms. Barrett provided a brief summary of the project and explained that the proposed change order, which is to allow for three phase power, required for new chemical metering pumps.

There was discussion about the change order history for this project, and the reasons for prior change orders.

Chair Theoharides asked if there was further discussion or any objections. Hearing none, she advanced the motion to an omnibus roll call vote. (ref. V C.1)

PERSONNEL AND COMPENSATION

Information

Diversity, Equity and Inclusion Workgroup Update

MWRA Special Assistant for Affirmative Action Patterson Riley updated Board Members on Diversity, Equity and Inclusion (DEI) Workgroup activities. He reported that the DEI Workgroup goals were part of the Authority's strategic business plan for Fiscal Years 2021 through 2025; that the Authority had developed and adopted a DEI mission statement; and that MWRA's internal website included a page to provide staff with information about DEI-related topics. Mr. Riley added that employee engagement and training were important components of DEI, and that MWRA had increased training opportunities for staff. Mr. Riley then noted that staff had initiated a co-op program for vocational and technical school students in the MWRA service area, and that a staff mentoring program was in development.

MWRA Director of Administration Michele Gillen thanked Board Members and Mr. Laskey for their support of MWRA's DEI initiatives.

Mr. Riley then reported that MWRA would undertake a disparity study to evaluate the Authority's minority and women owned business programs, and noted that DEI initiatives were tied to MWRA's Environmental Justice (EJ) efforts. He then introduced the leaders of MWRA's EJ efforts, Tomeka Cribb-Jones, Associate Special Assistant for Affirmative Action, and Rebecca Weidman, Director of Environmental and Regulatory Affairs.

Board Members commended MWRA's DEI initiatives and offered assistance in developing a mentoring program.

Chair Theoharides noted that DEI was a priority at the secretariat level of the Commonwealth and encouraged MWRA staff to continue work on DEI efforts.

Hearing no further discussion, Committee Chair Wolowicz proceeded to the next agenda item. (ref. VI A.1)

Approvals

Approval of the 2022 Affirmative Action Plan

Mr. Riley described MWRA staffing challenges due to the ongoing Covid pandemic, and steps to improve employee recruitment and retention, including promotions. He reported that MWRA's workforce was approximately 47% minority and female despite staffing challenges. Finally, Mr. Riley noted that Affirmative Action Plan priorities included the recruitment and retention of skilled craft staff, and increased representation of women and minorities in management.

Board Member Vitale commended MWRA's DEI efforts and Affirmative Action Plan, noting that DEI was also priority for City of Boston. He thanked MWRA staff for their assistance with recent

water main breaks in Worcester and Boston. Mr. Vitale then expressed gratitude on behalf of Mayor Wu, and noted that MWRA's readiness to work as a team with the City of Boston and the Boston Water and Sewer Commission validated its strength as an organization.

A motion was duly made and seconded that the Board of Directors approve the Massachusetts Water Resources Authority's Affirmative Action Plan effective for a one-year period from January 1, 2022 through December 31, 2022.

Chair Theoharides asked if there was further discussion or any objections. Hearing none, she advanced the motion to an omnibus roll call vote. (ref. VI B.1)

PCR Amendments – February 2022

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

MWRA Director of Human Resources Andrea Murphy summarized the proposed PCR amendments, which included two title and grade changes for vacant positions and the addition of a non-union Business Relationship Manager position.

Board Member Jack Walsh asked for more information about the job duties for the proposed Business Relationship Manager position, noting that the job description was not included with the associated Staff Summary. Ms. Murphy described the position's job duties. MWRA Special Assistant to the Executive Director Ria Convery advised Mr. Walsh that staff would forward him a copy of the job description.

(Ms. Wolowicz briefly left the meeting during discussion.)

Chair Theoharides asked if there was further discussion or any objections. Hearing none, she advanced the motion to an omnibus roll call vote. (ref. VI B.2)

ADMINISTRATION, FINANCE AND AUDIT

Information

FY2022 Second Quarter Orange Notebook

MWRA Chief Operating Officer David Coppes presented highlights of MWRA key performance indicators for the first and second quarters of Fiscal Year 2022, including staffing levels; the impacts of reduced staffing on routine activities such as blow off valve replacements; and the impacts of record rainfall on energy use, associated costs, and Clinton Wastewater Treatment Plant flows. He added that heavy rainfall had also effected water quality, which prompted treatment adjustments and outreach to customer communities about flushing and other best practices. Finally, Mr. Coppes noted that the water quality issues had since been resolved.

(Ms. Wolowicz returned to the meeting during the presentation.)

There was brief discussion about staff recruitment and retention challenges statewide.

Hearing no further questions or discussion, Committee Chair Foti proceeded to the next agenda item. (ref. VII A.1)

Delegated Authority Report – December 2021

Mr. Foti invited questions or comments from Board Members.

Hearing no questions or discussion, Mr. Foti proceeded to the next agenda item. (ref. VII A.2)

Fiscal Year 2022 Mid-Year Capital Improvement Program Spending Report

MWRA Director of Finance Thomas Durkin explained that the purpose of Mid-Year Capital Improvement Program (CIP) Spending Report was to provide Board Members a detailed record of spending highlights, as well as explanations for spending variances and schedule changes versus the budget. He also described how the report was organized and used for analysis.

There was general discussion about state and federal funding for water and wastewater infrastructure projects.

Hearing no further questions or discussion, Mr. Foti proceeded to the next agenda item. (ref. VII A.3)

FY22 Financial Update and Summary through January 2022

Mr. Durkin summarized financial results for FY22 through January 2022. He reported that total expenses were 3.1% under budget. He noted that indirect expenses were less than 1% under budget, and explained that the Harbor Electric Energy Company (HEEC) cable and watershed protection reimbursements had offset insurance premium overspending. He added that direct expenses were 9.2% under budget, mostly attributable to reduced personnel costs due to staffing challenges. Mr. Durkin then reported that total revenues were 0.3% over budget, resulting in a total budget variance of \$14.9 million. He also noted that capital finance expenses were right on budget after a transfer of \$7.7 million to the defeasance account, and that MWRA staff projected a \$32.3 million end-of-year total budget surplus. Finally, Mr. Durkin noted that staff would continue to refine projections, and that total capital expenditures were 24.9% under budget.

There was general discussion about the hypothetical impact of projected federal interest rate increases on MWRA budgets, wages and salaries, and the potential budgetary impacts of rising fuel and utilities costs. (ref. VII A.4)

Preliminary FY2023 Water and Sewer Assessments

Mr. Durkin summarized the proposed preliminary MWRA community assessments for Fiscal Year 2023. He explained that staff proposed a 3.4% increase on a combined water and sewer basis, which represented a slightly lower rate than projected. He then noted that staff would engage with the MWRA Advisory Board to review the figures. Finally, Mr. Durkin urged MWRA communities to consider proposed rate increases at the utility level: 3.9% for water and 3.1% for sewer, and noted the variability of community shares in the system.

Mr. Walsh noted that a page was missing from his Staff Summary. Mr. Durkin advised that staff would forward him the missing page.

There was general discussion about the estimated the cost of 1 million gallons per day (MGD) of combined water and sewer services, and the challenges of setting retail rates.

Hearing no further questions or discussion, Mr. Foti proceeded to the next agenda item. (ref. VII A.5)

Approvals

Transmittal of the FY2023 Proposed Current Expense Budget

A motion was duly made and seconded to approve the transmittal of the FY23 Proposed Current Expense Budget to the Advisory Board for its 60-day review and comment period.

MWRA staff presented an overview of the FY23 Proposed Current Expense Budget (CEB) for transmittal to the MWRA Advisory Board for review. Mr. Durkin explained that community assessments were expected to support the proposed budget. MWRA Budget Director Michael Cole reported that the proposed CEB represented a 3.4% year over year increase overall. He noted that the proposed budget included a 3% increase for direct expenses such as personnel costs, energy and utilities, maintenance, chemicals, training and meetings, professional services, other materials and other services; and, a 3.5% increase for indirect expenses such as watershed reimbursement/payments in lieu of taxes, pensions, other post-employment benefits, HEEC, insurance, mitigation and reserves. Finally, MWRA Deputy Director of Finance/Treasurer Matthew Horan explained that the proposed CEB included a \$17.4 million capital finance increase, mostly for principal and interest on outstanding debt and projected issuances, and also for expenses such the capital lease of the MWRA Chelsea facility, the Local Water Pipeline Assistance Program, and current revenue for capital.

There was brief discussion about the hypothetical impacts of inflation on personnel costs, and potential state and federal subsidies.

Chair Theoharides asked if there was further discussion or any objections. Hearing none, she advanced the motion to an omnibus roll call vote. (ref. VII B.1)

Proposed Amendments to the Management Policies of the Board of Directors

A motion was duly made and seconded to adopt the proposed amendments to the Management Policies of the Board of Directors as set forth in the February 16, 2022 Staff Summary, each substantially in the form presented and filed with the records of the meeting.

Ms. Gillen presented an overview of proposed changes to the Management Policies of the MWRA Board of Directors, which had been updated since last discussed at the January 19, 2022 Board meeting. She explained that MWRA staff's recommendations were intended to improve operational efficiency, especially around hiring, and to allow Board Members to focus more on substantive policy matters. She noted that the updated proposed amendments included the

authorization of the Executive Director to approve all appointments, with the exception of non-union manager positions which would continue to be approved by the Board; authorization of the Executive Director to approve Position Control Register changes to job titles and cost centers; and an increase to \$300,000 in the Executive Director's delegated authority to file lawsuits and settled claims. Finally, Ms. Gillen noted that staff would continue to adhere to a robust internal approval process, and report delegated authority actions to the Board.

Board Member Pappastergion requested a copy of the presentation slide for this agenda item, noting that it was a helpful encapsulation of the proposed amendments.

There was general discussion about the typical cost of chemicals, sole source bids; the procurement approval process; the MWRA delegated authority process; and, delegated authority practices at other state agencies.

Chair Theoharides expressed support for the proposed amendments and confidence in MWRA staff's abilities to make purchasing decisions. She added that the proposed amendments were in the best interest of ratepayers and would allow Board Members to focus on major decisions and bigger picture matters. Board members echoed the Chair's remarks.

There was general discussion about the function of Board Committees, MWRA purchasing policies and procedures, competitive bidding, and the process of reporting to the Board.

Chair Theoharides asked if there was further discussion or any objections. Hearing none, she advanced the motion to an omnibus roll call vote. (ref. VII B.2)

Contract Awards

Groundskeeping Services – Metropolitan Boston: C&W Facility Services, Inc. d/b/a C&W Services, Contract OP-439

A motion was duly made and seconded to approve the award of Contract OP-439, Groundskeeping Services – Metropolitan Boston, to the lowest responsible and eligible bidder, C&W Facility Services, Inc. d/b/a C&W Services and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of \$534,316.75 for a contract term of 1,095 calendar days from the Notice to Proceed.

MWRA Director of Wastewater Stephen Cullen summarized the purpose of the recurring groundskeeping contract, and the procurement process.

Chair Theoharides encouraged staff to consider the environmental practices of future groundskeeping contractors, such as the use of electric-powered rather than gas-powered equipment.

There was discussion about the benefits of electric-powered landscaping equipment, the prior groundskeeping contract's cost, MBE/WBE participation requirements, and the MBE/WBE evaluation and confirmation process.

Chair Theoharides asked if there was further discussion or any objections. Hearing none, she advanced the motion to an omnibus roll call vote. (ref. VII C.1)

Purchase Order Contract for New Next Generation Firewall System Hardware, Software, Five Years Maintenance/Support and Installation Services: ePlus Technology, Inc., WRA-5073Q, State Contract ITS74

A motion was duly made and seconded to approve the award of a purchase order contract for new Next Generation Firewall system hardware, software, five years maintenance/support, and installation services to the lowest responsive bidder under Bid WRA-5073Q, ePlus Technology, Inc., and authorize the Executive Director to execute said purchase order in the bid amount of \$431,839.00.

MWRA MIS Director Paula Weadick summarized the proposed purchase order contract for hardware, software, maintenance, support and installation services, and described the procurement process.

There was discussion about the prior contractor, and the bidders' respective hardware costs.

(Mr. Pappastergion left the meeting during discussion.)

Chair Theoharides asked if there was further discussion or any objections. Hearing none, she advanced the motion to an omnibus roll call vote. (ref. VII C.2)

WASTEWATER POLICY AND OVERSIGHT

Contract Amendments/Change Orders

CSO Post-Construction Monitoring and Performance Assessment: AECOM Technical Services, Inc., Contract 7572, Amendment 3

A motion was duly made and seconded to authorize the Executive Director, on behalf of the Authority, to approve Amendment 3 to Contract 7572, CSO Post-Construction Monitoring and Performance Assessment, with AECOM Technical Services, Inc., to increase the contract amount by \$1,559,000, from \$5,284,405 to \$6,843,405 and to extend the contract term by three years (1,097 calendar days), from April 7, 2022 to April 7, 2025.

MWRA staff presented an overview of the Long-Term CSO Control Program and the reasons for the proposed contract amendment. Mr. Coppes discussed the three-year extension requested of the court to focus on the 16 outfalls that did not meet the Long-Term CSO Control Plan goals, and future long-term control plan requirements for the variance waters - the Alewife Brook, Upper Mystic River and Charles River Lower Basin. Mr. Coppes explained that the proposed amendment would support the requested three-year time extension. MWRA Assistant Director of Engineering Brian Kubaska then described the consultant's qualifications and experience, and the scope of the proposed amendment.

Chair Theoharides asked if there was discussion or any objections. Hearing none, she advanced the motion to an omnibus roll call vote. (ref. VIII A.1)

Nut Island Headworks Odor Control and HVAC Improvements: Walsh Construction Company II, LLC, Contract 7548, Change Order 9

A motion was duly made and seconded to authorize the Executive Director, on behalf of the Authority, to approve Change Order 9 to Contract 7548, Nut Island Headworks Odor Control and HVAC Improvements, with Walsh Construction Company II, LLC, for a lump sum amount of \$187,410.85, increasing the contract amount from \$58,726,514.84 to \$58,913,925.69, with no increase in contract term. Further, it was moved and seconded to authorize the Executive Director to approve additional change orders as may be needed to Contract 7548 in an amount not to exceed the aggregate of \$250,000, in accordance with the Management Policies and Procedures of the Board of Directors.

Ms. Barrett explained that the purpose of the proposed change order was to install sewerage injector piping and modify fire sprinklers at the Nut Island Headworks.

There was brief discussion about the reasons for the proposed change order, and MWRA's cost recovery process.

Chair Theoharides asked if there was discussion or any objections. Hearing none, she advanced the motion to an omnibus roll call vote. (ref. VIII A.2)

OMNIBUS ROLL CALL VOTE

Chair Theoharides called for an omnibus roll call vote on the motions made and seconded. An omnibus roll call vote was taken in which the members were recorded as follows:

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
Theoharides		
Cook		
Flanagan		
Foti		
Peña		
Vitale		
J. Walsh		
Wolowicz		

Voted: to approve the minutes of the Board of Directors' January 19, 2022 meeting as presented and filed with the records of the meeting; (ref. I)

Further, voted: to approve the award of Contract 6522, Northern Extra High Pressure Zone Improvements Section 63 (Lexington), to the lowest responsible and eligible bidder, Albanese D&S, Inc. and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of \$11,737,000 for a contract term of 840 calendar days from the Notice to Proceed; (ref. V B.1)

Further, voted: to authorize the Executive Director, on behalf of the Authority, to approve Change Order 5 to Contract 7085H, John J. Carroll Water Treatment Plant Sodium Hypochlorite System Modifications, with Harding & Smith, LLC for a not-to-exceed amount of \$140,000,

increasing the contract amount from \$1,865,917.47 to \$2,005,917.47, and extending the contract term by 150 calendar days from February 7, 2022 to July 7, 2022; further, voted: to authorize the Executive Director to approve additional change orders as may be needed to Contract 7085H in an amount not to exceed the aggregate of \$250,000 and 180 days in accordance with the Management Policies and Procedures of the Board of Directors; (ref. V C.1)

Further, voted: that the Board of Directors approve the Massachusetts Water Resources Authority's Affirmative Action Plan effective for a one-year period from January 1, 2022 through December 31, 2022; (ref. VI B.1)

Further, voted: to approve amendments to the Position Control Register (PCR) as presented and filed with the records of the meeting; (ref VI B.2)

Further, voted: to approve transmittal of the FY23 Proposed Current Expense Budget to the MWRA Advisory Board for its 60 day review and comment period; (ref. VII B.1)

Further, voted: to adopt the proposed amendments to the Management Policies of the Board of Directors as set forth in the February 16, 2022 Staff Summary, each substantially in the form presented and filed with the records of the meeting; (ref. VII B.2)

Further, voted: to approve the award of Contract OP-439, Groundskeeping Services—Metropolitan Boston, to the lowest responsible and eligible bidder, C&W Facility Services, Inc. d/b/a C&W Services and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of \$534,316.75 for a contract term of 1,095 calendar days from the Notice to Proceed; (ref. VII C.1)

Further, voted: to approve the award of a purchase order contract for new Next Generation Firewall system hardware, software, five years maintenance/support, and installation services to the lowest responsive bidder under Bid WRA-5073Q, ePlus Technology, Inc., and authorize the Executive Director to execute said purchase order in the bid amount of \$431,839.00; (ref. VII C.2)

Further, voted: to authorize the Executive Director, on behalf of the Authority, to approve Amendment 3 to Contract 7572, CSO Post-Construction Monitoring and Performance Assessment, with AECOM Technical Services, Inc., to increase the contract amount by \$1,559,000, from \$5,284,405 to \$6,843,405 and to extend the contract term by three years (1,097 calendar days), from April 7, 2022 to April 7, 2025; (ref. VIII A.1) and,

Further, voted: to authorize the Executive Director, on behalf of the Authority, to approve Change Order 9 to Contract 7548, Nut Island Headworks Odor Control and HVAC Improvements, with Walsh Construction Company II, LLC, for a lump sum amount of \$187,410.85, increasing the contract amount from \$58,726,514.84 to \$58,913,925.69, with no increase in contract term; further, voted: to authorize the Executive Director to approve additional change orders as may be needed to Contract 7548 in an amount not to exceed the aggregate of \$250,000, in accordance with the Management Policies and Procedures of the Board of Directors. (ref. VIII A.2)

CORRESPONDENCE TO THE BOARD

Water Supply Citizens Advisory Committee Letter Regarding CSXT Settlement Agreement

Chair Theoharides announced that the Board had received a letter of congratulations from the Water Supply Citizens Advisory Committee (WSCAC) to the MWRA regarding the Wachusett Railroad (CSXT) settlement agreement. She invited Mr. Laskey to offer remarks. Mr. Laskey acknowledged the interest and participation of WSCAC's staff and membership, and thanked them for their help and advocacy. (ref. IX)

OTHER BUSINESS

There was no other business.

ADJOURNMENT

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

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

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
Theoharides		
Cook		
Foti		
Flanagan		
Peña		
Vitale		
J. Walsh		
Wolowicz		

The meeting adjourned at 3:17 pm.

Approved: March 16, 2022

Attest:

Andrew M. Pappastergion, Secretary

STAFF SUMMARY


TO: Board of Director
FROM: Frederick A Laskey, Executive Director
DATE: March 16, 2022
SUBJECT: PCR Amendments - March 2022



COMMITTEE: Personnel and Compensation

 INFORMATION
 X VOTE

Andrea Murphy, Director of Human Resources
Preparer/Title


Michele S. Gillen
Director, Administration

RECOMMENDATION:

To approve amendments to the Position Control Register (PCR) included in the attached chart.

DISCUSSION:

The Position Control Register lists all positions of the Authority, filled and vacant. It is updated as changes occur and it is published at the end of each month. Any changes to positions during the year are proposed as amendments to the PCR. All amendments to the PCR must be approved by the Personnel 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.

March PCR Amendments

There are four PCR Amendments this month.

Organizational Changes:

1. Title and grade change to one vacant position in the Operations Division, Planning department from Project Manager (Hydrologic and Hydraulic Modeling) Unit 9 Grade 25 to Senior Engineer (Hydrologic and Hydraulic Modeling) Unit 9 Grade 23 to better meet the staffing needs of the department.
2. Title and grade change to one vacant position in the Operations Division, Environmental and Regulatory Affairs department from Environmental Analyst Unit 9 Grade 23 to Project Manager, Environmental Permitting Unit 9 Grade 25 to better meet the staffing needs of the department.

3. Creation of a new position in the Tunnel Redundancy Division for a Program Manager, Design (Tunnel Redundancy) Unit 9 Grade 29 to providing engineering support for the multi-year Tunnel Redundancy Program.
4. Creation of a new position in the Tunnel Redundancy Division for a Project Manager, Design (Tunnel Redundancy) Unit 9 Grade 25 to providing engineering support for the multi-year Tunnel Redundancy Program.

BUDGET/FISCAL IMPACT:

The annualized budget impact of these PCR amendments will be a maximum cost of \$239,528. Staff will ensure that the cost increase associated with this PCR amendment will not result in spending over the approved FY22 Wages and Salaries budget.

ATTACHMENTS:

New Job Descriptions
Old Job Descriptions

**MASSACHUSETTS WATER RESOURCES AUTHORITY
POSITION CONTROL REGISTER AMENDMENTS
FISCAL YEAR 2022**

PCR AMENDMENTS REQUIRING BOARD APPROVAL - March 16, 2022																	
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		
B31	Operations Planning 1510036	V	T,G	Project Manager (Hydrologic and Hydraulic Modeling)	9	25	Senior Engineer (Hydrologic and Hydraulic Modeling)	9	23	\$110,569	\$72,963	-	\$101,241	-\$37,606	-	-\$9,328	To better meet staffing needs.
B32	Operations Environmental and Regulatory Affairs 5210101	V	T,G	Environmental Analyst	9	23	Project Manager, Environmental Permitting	9	25	\$101,241	\$79,357	-	\$110,569	-\$21,884	-	\$9,328	To better meet staffing needs.
B33	Tunnel Redundancy TBD	N/A	N/A	N/A	N/A	N/A	Program Manager, Design (Tunnel Redundancy)	9	29	\$0	\$92,358	-	\$128,959	\$92,358	-	\$128,959	To provide engineering support for a multi-year Tunnel Redundancy program.
B34	Tunnel Redundancy TBD	N/A	N/A	N/A	N/A	N/A	Project Manager, Design (Tunnel Redundancy)	9	25	\$0	\$79,357	-	\$110,569	\$79,357	-	\$110,569	To provide engineering support for a multi-year Tunnel Redundancy program.
BOARD TOTAL=					4						TOTAL:		\$112,225 -		\$239,528		

**MWRA
POSITION DESCRIPTION**



POSITION: Project Manager (Hydrologic and Hydraulic Modeling)

DIVISION: Operations

DEPARTMENT: Planning

BASIC PURPOSE:

Upgrades and manages the wastewater collection system and water distribution system hydrologic and hydraulic models, and assists with the management of the wastewater system model.

SUPERVISION RECEIVED:

Receives direct supervision and technical guidance from the Senior Program Manager of the Mapping, Modeling and Data Analysis Group.

SUPERVISION EXERCISED:

None.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Works in collaboration with other water and wastewater hydraulic modelers in the Planning Department.
- Manages the master files of the wastewater and water systems hydrologic and hydraulic models, develops upgrades and future networks/input files. Issues new files to users with appropriate documentation.
- Manages and negotiates contracts with consulting engineering firms, software development and application firms, and software vendors.
- Performs modeling and analytical services as requested for operational issues, including emergency situations.
- Performs periodic calibrations and verifications using MWRA wastewater or water metering

data.

- Assists in meeting NPDES permit reporting requirements for CSO discharges.
- Supports MWRA staff in the Operations Department to work towards integrating future models with other applications such as SCADA, and NEXRAD Radar data and other related systems in order to expand the capabilities of the model (move to real time predictability).
- Supports the project managers in other Operations Departments with work being done by consulting engineering firms or in-house staff on the study and design of Capital Projects.
- Completes specific modeling projects and prepares reports including results and recommendations.
- Coordinates with the operational GIS, and/or Database staff to obtain data on actual field conditions in order to refine data files for the hydraulic model and keep them current.
- Coordinates with the MIS Department regarding purchase of hardware, software and maintenance contracts. Prepares annual and supplementary budget requests for the program.
- Creates new models or expand available models, as needed, to include member communities' systems and subsystems within the MWRA network. Meets with community representatives to present/discuss results of modeling work and address community needs as necessary. Coordinates with member communities' model development efforts to encourage sharing of model input files and supporting data.
- Provides assistance and training to other staff related to the system models and its upgrades/master files.
- Ensures compliance with MWRA policies, procedures and directives, and with regulatory requirements and applicable engineering standards. Ensures all activities are coordinated with MWRA divisions and outside concerns as appropriate.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelor's degree in civil, sanitary, or environmental engineering or related field with an emphasis on hydraulic engineering; and
- (B) Six (6) to eight (8) years experience in wastewater/water facilities hydrologic and hydraulic analysis utilizing computer modeling and other wastewater/water facility operational or engineering experience; or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Demonstrated knowledge and skill in using computer applications, such as hydrologic and hydraulic models of water and wastewater systems, (e.g. HYDROWORKS/ InfoWorks, InfoWater, SWMM, XP-SWMM), databases, GIS and data collection systems.
- (B) Demonstrated knowledge and skill in the calibration and verification of complex hydrologic and hydraulic computer models.
- (C) Working knowledge of GIS and database structures.
- (D) Knowledge of principles and practices of engineering.
- (E) Demonstrated written and oral communication and organizational skills.

SPECIAL REQUIREMENTS:

A valid Massachusetts Class D Motor Vehicle Operators License

A Registered Professional Engineers License is 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 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 moderately quiet.

September 2019

**MWRA
POSITION DESCRIPTION**

NEW

POSITION: Senior Engineer (Hydrologic and Hydraulic Modeling)

DIVISION: Operations

DEPARTMENT: Planning

BASIC PURPOSE:

Operates and maintains the wastewater collection system and water distribution system hydrologic and hydraulic models.

SUPERVISION RECEIVED:

Receives direct supervision from the Senior Program Manager of the Mapping, Modeling and Data Analysis Group and technical guidance from the Project Managers, Hydrologic and Hydraulic Modeling.

SUPERVISION EXERCISED:

None.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Works in collaboration with other water and wastewater hydraulic modelers in the Planning Department.
- Assists in maintaining the master files of the wastewater and water systems hydrologic and hydraulic models, and develops upgrades and future networks/input files.
- Performs modeling and analytical services as requested for operational issues, including emergency situations.
- Performs periodic calibrations and verifications using MWRA wastewater or water metering data.
- Assists in meeting NPDES permit reporting requirements for CSO discharges.

- Supports the project managers in other Operations Departments with work being done by consulting engineering firms or in-house staff on the study and design of Capital Projects.
- Completes specific modeling projects and prepares reports including results and recommendations.
- Coordinates with the operational GIS, and/or Database staff to obtain data on actual field conditions in order to refine data files for the hydraulic model and keep them current.
- Creates new models or expands available models, as needed, to include member communities' systems and subsystems within the MWRA network. Meets with community representatives to present/discuss results of modeling work and address community needs as necessary.
- Provides assistance other staff related to the system models.
- Ensures compliance with MWRA policies, procedures and directives, and with regulatory requirements and applicable engineering standards. Ensures all activities are coordinated with MWRA divisions and outside concerns as appropriate.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelor's degree in civil, sanitary, or environmental engineering or related field; and
- (B) Four (4) to six (6) years of professional engineering or operations experience with wastewater or water facilities. Experience in wastewater and/or water facility hydraulic analysis utilizing computer modeling preferred; or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Demonstrated knowledge and skill in using computer applications, such as hydrologic and hydraulic models of water and wastewater systems, (e.g. HYDROWORKS/ InfoWorks, InfoWater, SWMM, XP-SWMM), databases, GIS and data collection systems is preferred.
- (B) Working knowledge of GIS and database structures.
- (C) Knowledge of principles and practices of engineering.
- (D) Demonstrated written and oral communication and organizational skills.

SPECIAL REQUIREMENTS:

A valid Massachusetts Class D Motor Vehicle Operators License

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 moderately quiet.

March 2022

**MWRA
POSITION DESCRIPTION**



POSITION: Environmental Analyst
DIVISION: Operations
DEPARTMENT: Environmental and Regulatory Affairs

BASIC PURPOSE:

Supports the Director of Environmental and Regulatory Affairs in evaluating local, state, and federal environmental regulations and permit requirements related to MWRA operations. This job also includes assisting in the oversight and implementation of operating procedures for water and wastewater expansion.

SUPERVISION RECEIVED:

Works under the general supervision of the Director of Environmental and Regulatory Affairs.

SUPERVISION EXERCISED:

May oversee contracts or supervise one or more interns as needed.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Assists with environmental permitting and operational decisions based on research of local, state and federal requirements. Specifically, the Massachusetts Environmental Policy Act, the Wetlands Protection Act, federal and state Clean Waters Act, federal and state Clean Air Act requirements, and storm water permit requirements.
- Prepares updates to MWRA operational materials to ensure work is conducted in a manner that is consistent with the Massachusetts Endangered Species Act and Natural Heritage & Endangered Species Program guidelines.
- Researches and summarizes information on whether MWRA project (construction) activities trigger MEPA thresholds and guides project managers and consultants on the required permitting associated with those thresholds.

- Review and oversee notices of intent prepared for local conservation commissions for MWRA projects.
- Assists senior managers in providing reporting recommendations under the Massachusetts Contingency Plan requirements.
- Assist in management of water and wastewater expansion efforts.
- Prepares reports, technical presentations, answers to inquiries, and letters for the Department Director.
- Tracks permits for MWRA projects, including reporting requirements, due dates, and responsible parties. Keeps MWRA staff abreast of impending deadlines.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A four (4) year college degree in environmental science, political science, public policy or administration, environmental engineering or equivalent degree in environmental science or related field. A master's degree preferred; and
- (B) Three (3) to five (5) years of experience in interpreting or applying environmental regulations; or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Knowledge of water and wastewater treatment systems, watershed management, and environmental regulations.
- (B) Excellent computer skills in Oracle, Access and Excel and working knowledge of MS Word and Power Point.
- (C) Demonstrated abilities to work as part of a team, to develop and maintain productive

working relationships with external parties, and to function independently with minimal supervision.

- (D) Excellent written and communication skills as well as good interpersonal and organizational skills.

SPECIAL REQUIREMENTS:

None.

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to use hands to finger, handle, feel or operate objects including office equipment or controls and reach with hands and arms. The employee is frequently required to sit, talk and hear. The employee is occasionally required to stand and walk, stoop, kneel, crouch or crawl, taste or smell.

There are no requirements that weight be lifted or force be exerted in performance of this job, although the employee may have the opportunity to participate in field activities that involve lifting weight (e.g. water, sediment or other environmental samples) or exerting force. Specific vision requirements required by this job include close vision, distance vision, depth perception, 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 a moderately quiet office setting.

July 2018

**MWRA
POSITION DESCRIPTION**

NEW

POSITION: Project Manager, Environmental Permitting

DIVISION: Operations

DEPARTMENT: Environmental and Regulatory Affairs

BASIC PURPOSE:

Evaluates local, state, and federal environmental regulations and permit requirements related to MWRA operations. This job also provides technical assistance in the oversight and implementation of operating procedures for water and wastewater expansion.

SUPERVISION RECEIVED:

Works under the general supervision of the Director of Environmental and Regulatory Affairs.

SUPERVISION EXERCISED:

May oversee contracts and direct the work of contract employees and/or interns as needed.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Manages and reviews environmental permitting of substantial difficulty and importance, requiring exercise of independent judgement and ability to ensure that MWRA construction projects comply with all environmental regulations. Provides oversight to consultants working on environmental permitting for the MWRA.
- Provides guidance for consideration in operational decisions based on research of local, state and federal requirements. Specifically, the Massachusetts Environmental Policy Act, the Wetlands Protection Act, federal and state Clean Waters Act, federal and state Clean Air Act requirements, and storm water permit requirements.

- Researches and summarizes information on whether MWRA project (construction) activities trigger MEPA thresholds and guides project managers and consultants on the required permitting associated with those thresholds.
- Prepares updates to MWRA operational materials to ensure work is conducted in a manner that is consistent with the Massachusetts Endangered Species Act and Natural Heritage & Endangered Species Program guidelines. Monitors compliance with MWRA's Vegetation Management Plan.
- Review and oversee notices of intent prepared for local conservation commissions for MWRA projects. Represents MWRA at local conservation commission meetings.
- Monitors environmental compliance with permits and approvals issued for MWRA construction projects; provides technical information and assistance.
- Maintains on-going contact with professional and community groups regarding environmental and mitigation compliance, initiates outreach projects to increase public awareness and participation to promote the Authority's long-term goals and policies, including enhancing outreach to Environmental Justice populations in MWRA's service area.
- Assists senior managers in providing reporting recommendations under the Massachusetts Contingency Plan requirements.
- Provides technical assistance in support of water and wastewater expansion efforts. Acts as primary point of contact for MWRA during expansion conversations.
- Prepares reports, technical presentations, answers to inquiries, and letters for the Department Director.
- Tracks all MEPA filings and drafts comment letters on behalf on the Authority.
- Tracks permits for MWRA projects, including reporting requirements, due dates, and responsible parties. Keeps MWRA staff abreast of impending deadlines.
- Performs special projects as directed in response to external and internal requests.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelor's degree in environmental science, public policy, public administration, environmental engineering or related field. A Master's degree is preferred; and
- (B) Five (5) to seven (7) years of experience in water resources analysis, construction permitting, environmental impact assessment, water resource planning, report writing, or interpreting or applying environmental regulations; or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Knowledge of water and wastewater treatment systems, watershed management, and environmental regulations and requirements including one or more of the following: the Massachusetts Environmental Policy Act, the Wetlands Protection Act, federal and state Clean Waters Act, federal and state Clean Air Act, and storm water permits.
- (B) Excellent computer skills in Oracle and MS Office Suite.
- (C) Demonstrated abilities to work as part of a team, to develop and maintain productive working relationships with external parties, and to function independently with minimal supervision.
- (D) Excellent written and communication skills as well as good interpersonal and organizational skills.
- (E) Strong analytical skills.

SPECIAL REQUIREMENTS:

A valid Massachusetts Class D Motor Vehicle license.

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 including office equipment or controls and reach with hands and arms. The employee is frequently required to sit, talk and hear. The employee is occasionally required to stand and walk, stoop, kneel, crouch or crawl, taste or smell.

There are no requirements that weight be lifted or force be exerted in performance of this job, although the employee may have the opportunity to participate in field activities that involve lifting weight (e.g. water, sediment or other environmental samples) or exerting force. Specific vision requirements required by this job include close vision, distance vision, depth perception, 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 a moderately quiet office setting.

March 2022

**MWRA
POSITION DESCRIPTION**



POSITION: Program Manager, Design (Tunnel Redundancy)

DIVISION: Tunnel Redundancy

DEPARTMENT: Tunnel Redundancy

BASIC PURPOSE:

Manages engineering and design projects related to the Metropolitan Tunnel Redundancy Program.

SUPERVISION RECEIVED:

Works under the general supervision of the Manager, Design (Tunnel Redundancy).

SUPERVISION EXERCISED:

Exercises close supervision of a small group of professional staff and directly manages consultants.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Manages the planning and design phases of projects under the Tunnel Redundancy Program, including feasibility and environmental impact reports, detailed plans and specifications, permitting, project schedules, technical assistance, progress review and evaluation.
- Supervises professional multi-disciplinary design work of large and complex projects applying professional engineering principles and exercising independent judgment.
- Performs engineering analysis, prepares engineering documents, and writes project reports.
- Reviews work of professional engineering consultants related to hydraulic analysis, groundwater treatment and discharge, connections to existing MWRA systems, long-term operations, design reports, and contract documents (plans and specifications).
- Ensures projects are implemented using comprehensive work plans and resources by selecting consultant services groups that deliver a technically sound, controlled project on budget and on time.
- Participates in consultant selection procedures and contract negotiations for projects. Additionally, participates in applicable phases of consultant selection for assigned projects

including developing scope of services, cost estimates, work schedules, and preparing contract award recommendations. Ensures compliance with contract budgets, schedules, and terms.

- Oversees the work of professional engineering consultants for large tunneling projects, including all work products for quality of work, budget, schedule, and compliance with contractual terms and MWRA objectives and policies.
- Assists in the development of design schedules and design budgets ensuring fundamental management controls, techniques, accountability for projects related to the Tunnel Redundancy Program.
- Assists with implementation of the Program Management Plan (PMP) to ensure timely and cost-effective delivery of assigned projects within the Tunnel Redundancy Program. Administers control and tracking methods and procedures to ensure project compliance with approved budgets and schedules. Reports the status of projects to senior management including any issues that impact schedules and budgets. Develops and provides proposals to address budget or schedule non-compliance issues.
- Assists with implementation and administration of project controls, such as scope, schedule and cost management.
- Administers quality management during design and construction process. Ensures that fundamentals and recommended practices and procedures for QA/QC are followed and managed by staff.
- 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.
- Provides technical and administrative assistance to staff in the development and management of projects which include design and engineering services during construction of the Tunnel Redundancy Program.
- Supports annual and supplementary budget requests for the Tunnel Redundancy Program in the Capital Improvement Program (CIP). Reviews projects' budgets and schedules for compliance with established department, division, and MWRA program goals.
- Assists in implementing the goals and commitments of MWRA in the areas of customer services, diversity and affirmative action, economy and efficiency, health and safety, emergency response and security, integrity, and public trust.

- Assists with compliance with MWRA procedures and policies, local, state, and federal environmental regulatory requirements and applicable engineering standards.

SECONDARY DUTIES:

Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- A. A Bachelor's degree in civil engineering, geotechnical engineering, or related engineering field required (an advanced degree or other post-graduate study in civil engineering is preferred); and
- B. Seven (7) to nine (9) years of civil engineering design, project management and/or construction; and
- C. At least three (3) years' experience in a supervisory capacity; or
- D. Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

Knowledge of principles and practices of civil engineering.

Knowledge of Massachusetts bidding laws, including M.G.L Chapter 30 and Chapter 149 construction bidding regulations preferred.

Understanding of issues related to design, construction and operation of large and complex water and wastewater facilities and infrastructure preferred.

Experience with major water/wastewater facilities or water systems preferred.

Excellent interpersonal, written, and oral communication skills.

Demonstrated ability to work effectively as part of a collaborative project team and also to function independently with minimal supervision.

Experience with project scheduling software such as Microsoft Project or Oracle Primavera P6 preferred.

SPECIAL REQUIREMENTS:

A valid Massachusetts Class D Motor Vehicle Operators License.

Massachusetts license as a Registered Professional Engineer. (P.E.) preferred.

Certification by the Project Management Institute as a Project Management Professional (PMP) 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 fax machine.

PHYSICAL DEMANDS:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly required to use hands to finger, handle, feel or operate objects, tools or controls and reach with hands and arms. The employee frequently is required to sit and talk or hear. The employee is occasionally required to stand, walk, climb or balance, stoop, kneel, crouch, or crawl, taste or smell.

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

WORK ENVIRONMENT:

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job.

While performing the duties of this job, the employee regularly works in an office environment. 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 or underground 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.

July 2020

**MWRA
POSITION DESCRIPTION**



POSITION: Project Manager, Design (Tunnel Redundancy)
DIVISION: Tunnel Redundancy
DEPARTMENT: Tunnel Redundancy

BASIC PURPOSE:

Manages engineering, design, and construction projects and tasks related to the Metropolitan Tunnel Redundancy Program as well as rehabilitation and capital improvement of other water and wastewater facilities and infrastructure.

SUPERVISION RECEIVED:

Works under general supervision of the Manager, Design (Tunnel Redundancy).

SUPERVISION EXERCISED:

Exercises close supervision over a small staff of professional employees.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Manages projects and tasks related to the evaluation, planning, design, or construction of tunnel facilities, distribution lines, transmission lines, and associated structures, water pumping stations, water treatment facilities, wastewater treatment plants, wastewater pumping stations, CSO facilities, headworks facilities, collection system components, equipment and support buildings.
- Supervises professional multi-disciplinary design work of large and complex projects applying professional engineering principles and exercising independent judgment related to the Tunnel Redundancy Program as well as assigned water and wastewater engineering or maintenance projects.

- Manage the preparation and review of reports, memoranda, work plans, designs, cost estimates and other professional engineering work products, including evaluations, calculations, technical analysis, scheduling, and specifications.
- Performs professional engineering work of substantial difficulty and importance, including the gathering of information, development of evaluation and design, and preparation of reports, contract plans and specifications requiring the exercising of independent engineering judgment.
- Provides construction administration services, including review of shop drawings, attends monthly progress meetings, conducts inspection, reviews drawings, plans sequence of work with contractors, submits progress reports, and all other services necessary to support construction projects.
- Participates in the development, implementation and monitoring of construction and service contracts, plans and specifications for proposed construction, modifications / replacements, permit applications and permits.
- Supports all phases of consultant and contractor selection and supervision of professional engineering consultant contracts. Assists the development of scope of services, plans and specifications, costs estimates, and work schedules. Participates in contract administration tasks.
- Assists in performance tracking to ensure compliance with contract budgets, schedules, and terms. Ensures projects are implemented with effective quality management, comprehensive work plans and adequate resources by reviewing work plans, field reports, work summary reports, logs, and other documents, conducting site visits, maintain communication with project team, and tracking and evaluating performance matrix.
- Assists in coordination of projects with communities, external public interest groups, government agencies, and other MWRA departments. Provides technical information and assistance. Support professional and community groups and outreach projects.
- Participates in emergency response to any/all MWRA emergencies as needed.

SECONDARY DUTIES:

Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelor's degree in environmental engineering, civil engineering, geotechnical engineering, construction management, or related engineering field required. Master's degree or graduate work in environmental or civil engineering preferred; and
- (B) Five (5) to seven (7) years of engineering design, project management, and/or construction, preferably related to major water/wastewater facilities or water systems; and
- (C) Two (2) years of experience in a supervisory capacity; or
- (D) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Knowledge of principles and practices of civil and environmental engineering required.
- (B) Knowledge of principles and practices of tunneling engineering and underground construction preferred.
- (C) Experience in design projects and understanding of issues related to design and construction of large and complex water and wastewater infrastructure projects.
- (D) Demonstrated interpersonal, managerial, written, and oral communication skills.
- (E) Demonstrated ability to work effectively as part of a collaborative project team and also to function independently with minimal supervision.
- (F) Familiarity with computer software such as Microsoft Office Suite, GIS, Microsoft Project or Oracle Primavera P6 is preferred.
- (G) Knowledge of Massachusetts bidding laws including M.G.L. Chapter 30 and Chapter 149 construction bidding regulations is preferred.

SPECIAL REQUIREMENTS:

A valid Massachusetts Class D Motor Vehicle Operators License.

Massachusetts license as a Registered Professional Engineer (P.E.) is 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 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, office equipment or controls, and reach with hands and arms. The employee is frequently required to sit, talk and hear. The employee is occasionally required to stand, walk, climb or balance, stoop, kneel, crouch, or crawl, taste or smell.

The employee may be required frequently to lift and/or move up to ten pounds and occasionally be required to lift and/or move up to twenty five pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, depth perception, peripheral vision and the ability to adjust focus.

WORK ENVIRONMENT:

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job.

While performing the duties of this job, the employee regularly works in an office environment with frequent periods of work outside in all weather conditions. The employee at times works near moving mechanical parts, and is at times exposed to wet and/or humid conditions and vibration. The employee occasionally works in high or underground precarious places and is at times 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.

March 2022

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: March 16, 2022
SUBJECT: Appointment of Manager, Occupational Health and Safety



COMMITTEE: Personnel & Compensation

 INFORMATION
 X VOTE

Andrea Murphy, Director, Human Resources
Preparer/Title


Michele S. Gillen
Director, Administration

RECOMMENDATION:

That the Board approve the appointment of Mr. Timothy Wooster to the position of Manager, Occupational Health and Safety (Non-Union, Grade 14) in the Administration Division, at an annual salary of \$138,000 commencing on a date to be determined by the Executive Director.

DISCUSSION:

This position became vacant in July 2021 upon the promotion of the incumbent. Among the critical responsibilities of this important position are site safety assessments, data analysis, safety program enhancements, incident response and compliance tracking and reporting. This position played an invaluable role in MWRA’s COVID-19 response. This position reports directly to the Director of Administration oversees all facets of MWRA’s workplace health and safety program to assure that MWRA staff have safe and healthful working conditions that are compliant with the Commonwealth of Massachusetts occupational health and safety regulations.

Selection Process

The position of Manager, Occupational Health and Safety was originally posted internally and externally in August 2021. During the original posting period there no internal applicants and nine external applicants. Two of those applicants were qualified and were interviewed by the Director, Administration, the Toxic Reduction and Control (the former Manager of Occupational Health and Safety) and the Associate Special Assistant for AACU. The position was offered to one of those candidates. The candidate originally accepted the offer, but later declined the offer.

The position was reposted multiple times on the MWRA website, several job search sites including Careerbuilder, Indeed, LinkedIn and Ziprecruiter, as well as on the National Association of Clean Water Agencies’ (NACWA) job posting page. Two more external candidates applied and were referred for interviews.

Mr. Wooster was selected as the most qualified candidate based on his experience, abilities, knowledge and education.

Mr. Wooster has over ten years of experience in environmental health and safety in the public sector. Mr. Wooster currently serves as the Safety and Occupational Health Director at the Department of the Army where he is responsible for the health and safety programs. His responsibilities include job site and safety data analysis, develop safety goals to mitigate workplace incidents, audit and evaluate policies and programs to maintain compliance with applicable laws, consensus standards, and regulations.

Mr. Wooster previously worked for the Department of the Navy as the Site Safety Manager where he was responsible for facilities inspections at various sites and conducted audits for the work environment. Mr. Wooster has held positions of increasing responsibility in the safety field.

Mr. Wooster has a B.S. in Industrial Management, a B.S. in Occupational Safety and Health and a M.S. in Occupational Safety and Health. He also holds several other related licenses and certifications, including as a Safety Professional by the Board of Certified Safety Professionals.

BUDGET/FISCAL IMPACT:

There are sufficient funds in the FY22 Current Expense Budget for this position.

ATTACHMENTS:

Resume of Timothy Wooster
Position Description
Organizational Chart

Timothy Wooster

SUMMARY

Experienced and qualified Occupational Safety & Health Professional eager to contribute dynamic program and project management experience, employee training/leadership, and regulatory compliance skills towards supporting the objectives of a progressive organization. Dedicated professional providing expert workplace inspections and evaluations of safety hazards. Instrumental in recommending results-oriented solutions to eliminate and control identified hazards through use of the hierarchy of controls, policies, and procedures. Currently hold the Certified Safety Professional (CSP) designation. OSHA 30 hour trained in general industry and construction.

SKILLS

- Knowledge of Federal, State and Local standards
- Detail oriented
- Excellent communicator
- Training and development
- Team oriented
- Goal focused

EXPERIENCE

Safety and Occupational Health Director, Department of the Army, January 2019-Current
Natick, MA

Audit and evaluate policies and programs on a continuous basis to maintain compliance with applicable laws, consensus standards, and regulations; OSHA 300Log, BLS Survey

-Analyze and interpret data from injuries and near-misses plus other indicators to develop safety goals to mitigate workplace incidents

-Brief Senior Organizational Leaders on a continuous basis in regards to safety metrics, initiatives, and overall program sustainability

-Conduct inspections of diverse industrial areas, laboratories, and field sites ensuring corrective actions are documented and completed on time

-Lead audits and surveillances of the work environment to identify hazardous workplace conditions

-Review construction proposals, statements of work, contractor safety plans, and inspect/audit contractor worksites as applicable

-Program manager for respiratory protection, fall protection, confined space, worker medical surveillance, and ergonomics; as well as other EHS areas; Radiation/Loser Safety Officer

-Wrote new fall protection and control of hazardous energy programs to meet OSHA and ANSI standards

-Conduct accident, near miss, and injury investigations to determine root cause factors

-Develop and review SOPs, IHAs, and Risk Assessments for organizational processes

-Deliver safety training for employees and management

Site Safety Manager, Department of the Navy, December 2015-January 2019

Kittery, ME

-Instrumental player as the organization moved toward VPP Star status

-Conducted facility inspections that included machine shops, fabrication areas, power generation,

- ammunition storage areas, and transportation assets in multiple geographic areas
- Collaborated with engineers and construction personnel on various projects while assigned to Naval Facilities Engineering Command
- Administered permit required confined space and waste water treatment entrance program with blood-borne pathogen training
- Program manager and trainer for various SOH program areas
- Conducted audits and surveillances of the work environment to identify hazards
- A resource for employees to answer compliance or safety questions
- Conducted accident, near miss, and injury investigations utilizing root cause analysis

Occupational Safety and Health Specialist, Department of the Army, January 2015-December 2015 Aberdeen, MD

- Assigned as the Aberdeen Test Center fire marshal and pressure vessel program manager
- Conducted safety inspections that included field sites, weapon ranges, ammunition storage areas, machine shops, fabrication areas, laboratories, and equipment test sites
- Developed SOP's and JHA's for processes to include pressure vessels
- Provided ergonomic assessments and training to employees
- Coordinated and provided training to all levels of the organization to include OSHA General Industry 10-hour training
- Conducted accident/incident investigations to identify causes
- As pressure vessel program manager developed a tracking mechanism for compressed gas cylinders and static vessels in the organization
- Instrumental in disposing over 60 compressed gas cylinders that were abandoned from various tests throughout the site
- Partnered with department head to develop a lock out/tag out program for their work area
- Identified and replaced over 200 outdated fire extinguishers throughout the organization

First Sergeant/Operations, NH National Guard, Field Artillery Battalion February 2012-January 2015 Concord, NH

- Responsible for the coordination of six readiness centers across the state of New Hampshire
- Planned, scheduled, and conducted physical security and safety inspections to meet Federal, State, Local, and Army standards
- Established the organization level safety committee and served as co-chair
- Provided training for all levels of the organization in safety standards

EDUCATION

Master of Science 2018

Occupational Safety and Health, Columbia Southern University, Orange Beach AL

Bachelor of Science 2012

Occupational Safety and Health, Columbia Southern University, Orange Beach AL

Bachelor of Science 1994

Industrial Management, University of Massachusetts - Lowell, Lowell MA

CERTIFICATIONS

Certified Safety Professional (CSP)-BCSP

Cert # CSP-3868 I

Associate Safety and Health Manager (ASHM)-IHMM

Cert# 5548 A

**MWRA
POSITION DESCRIPTION**

POSITION: Manager, Occupational Health and Safety

DIVISION: Administration

DEPARTMENT: Safety

BASIC PURPOSE:

Manages MWRA's compliance with Massachusetts Department of Labor Standards (DLS) (state) and federal rules and regulations and provides programs, guidance and recommendations in areas of employee safety and health. Oversees and develops a program for regulatory compliance with state standards and works closely with other authority safety and health staff to communicate, implement, monitor and track safety and health regulatory compliance. Leads agency's activities in a proactive way to minimize health issues and prevent situations that could create workers' compensation cases.

SUPERVISION RECEIVED:

Works under the general supervision of the Director of Administration.

SUPERVISION EXERCISED:

Supervises assigned project or safety staff as needed.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Develops and oversees an overall program of regulatory compliance consistent with the employer responsibilities defined by DLS designed to reduce work-related injury and illness. Such program will include the following key activities:
 - Conducting multi-facility (30+) worksite safety assessments and inspections (i.e., self-audits) to determine risks to employee safety and health and ensure that the workplace conditions conform to DLS standards;
 - Assessing potential hazards and controls;
 - Evaluating risks and hazard control measures;
 - Investigating incidents involving the safety and health of employees, visitors, vendors and contractors;
 - Maintaining and evaluating incident and loss records;
 - Assisting with the development and deployment of emergency response plans.

- Works closely with authority safety, operations and emergency preparedness staff to create, update, and implement safety and health programs in areas such as Bloodborne Pathogens Exposure Control Plan, Emergency Action Plan, Fire extinguishers, Fire Prevention Plan, Confined Space, Model Confined Space Entry Policy and Procedure, Hazard Communication, Hearing Conservation Program, Lockout /Tagout, Respiratory Program, Personal Protective Equipment Hazard Assessment, and Trench Safety.
- Works closely with MWRA Training Department to provide and deliver safety training as required by state and federal regulations or identified through risk assessments.
- Works closely with other authority safety staff to establish and/or update operating procedures including the MWRA Online Safety & Health Manual and ensure the appropriate communication to employees is delivered in order to ensure employee compliance with safety and health requirements.
- Ensures that any required DLS postings are prominently displayed at authority worksites in order to inform employees of their rights and responsibilities.
- Ensures the proper notification to the appropriate DLS office of any work-related fatalities, inpatient hospitalizations, amputations, loss of consciousness, and loss of an eye within the timeframes established by DLS.
- Administers an authority-wide system for record keeping for work-related injuries and illnesses using the OSHA Log of Work-Related Injuries and Illnesses form (OSHA Form 300). Posts the summary of the OSHA log for injuries and illnesses (OSHA 300A) according to procedures promulgated by OSHA. Provides access to employees, former employees and their representatives to OSHA Form 300 as required by applicable state regulations.
- Complete the Bureau of Labor Statistics (BLS) annual survey on Occupational Injury and Illnesses when selected by BLS to participate.
- Serves as the authority's main contact to DLS Inspectors for communications and for inspections. Attends opening and concluding conferences conducted by the DLS Inspector and provides DLS Inspectors with injury records and written programs as requested. Provides DLS Inspectors with the names of any authorized employee representatives who may be asked to accompany the Inspector during an inspection.
- Reviews reports developed by DLS Inspectors and works with MWRA staff to take any necessary corrective actions.
- As required by DLS, posts citations, abatement verification documents or tags near the cited workplace and complies with the posting period required by DLS. Works with authority staff to correct cited violations within the timeframes prescribed by DLS.

- Works with authority staff to evaluate hazard communication programs and training of employees regarding the hazards they may be exposed to during the course of employment at MWRA including communicating the need for employees to utilize proper personal protective equipment required for handling hazardous chemicals.
- Interacts with regulatory agencies, operations managers, employee representatives and employees on a regular basis.
- Tracks changes in federal and state safety and health regulations and appraises authority management of such changes and impact to the authority. Recommends and drafts communications, policies and standard operating procedures needed to meet such changes in regulations. Oversees the work of professional consultants under contract to the Authority, including quality of output and budget.
- Develops meaningful management workplace safety indicators for use by senior managers (e.g., Yellow/Orange Notebook data and reports).
- Serves as technical consultant to senior management on issues relevant to occupational safety and health.
- Coaches all levels of staff to create and maintain a strong safety culture.
- Provides professional opinions to Law, Labor Relations, Workers' Compensation, and Risk Management, including testifying as an expert witness.
- Represents the executive office in the investigation of serious or potentially serious accidents or security incidents.
- Interprets technical data provided by outside technical professionals.
- Manages budget and staffing.
- Assists in maintaining harmonious labor management relations through proper applications of collective bargaining agreement provisions and established personnel policies. Prepares for, participates in and hears step one grievances and pre-disciplinary hearings. Participates in collective bargaining negotiations.
- Leads efforts to comply with applicable federal or state requirements.

SECONDARY DUTIES:

Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) Knowledge of the principles and practices of a safety professional as normally attained through a undergraduate degree in occupational health and safety, industrial hygiene or related science and/or engineering discipline, or environmental science and
- (B) Knowledge of health and safety policies, regulations, standards, best practices in an industrial environment; an understanding of issues related to safety, emergency response, risk management, environmental health; experience in incident investigations, safety inspections as normally attained through eight (8) to ten (10) years of experience including at least three years of supervisory experience; and
- (C) Demonstrated knowledge through direct involvement/management of federal OSHA and Massachusetts DLS standards, training, implementation and auditing of policies and procedures as they related to employee safety.
- (D) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Excellent interpersonal, oral and written communication skills needed to interface with regulatory staff and write analyses, recommendations and draft recommendations for safety policies and procedures.
- (B) Expert knowledge in the area of safety and health regulatory compliance in order to recommend, organize and manage a compliance program as required by Massachusetts DLS.
- (C) Ability to identify safety and health issues and concerns and recommend actions to correct deficiencies identified through inspections and other oversight activities.
- (D) Ability to conduct, interpret and translate all safety-related training requirements mandated by federal, state and local regulatory agencies to staff.

SPECIAL REQUIREMENTS:

A valid Massachusetts Class D Motor Vehicle Operators License.

Certification by the Board of Certified Safety Professionals as a Safety Management Specialist (SMS), Certified Safety Professional (CSP) or by the American Board of Industrial Hygienists as a Certified Industrial Hygienist (CIH).

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. The employee is occasionally required to walk, climb, balance, stoop, kneel, crouch, or crawl.

The employee must frequently lift and/or move up to 10 pounds, and occasionally lift and/or move up to 25 pounds. Specific vision abilities required by this job include close vision, and the ability to adjust focus.

WORK ENVIRONMENT:

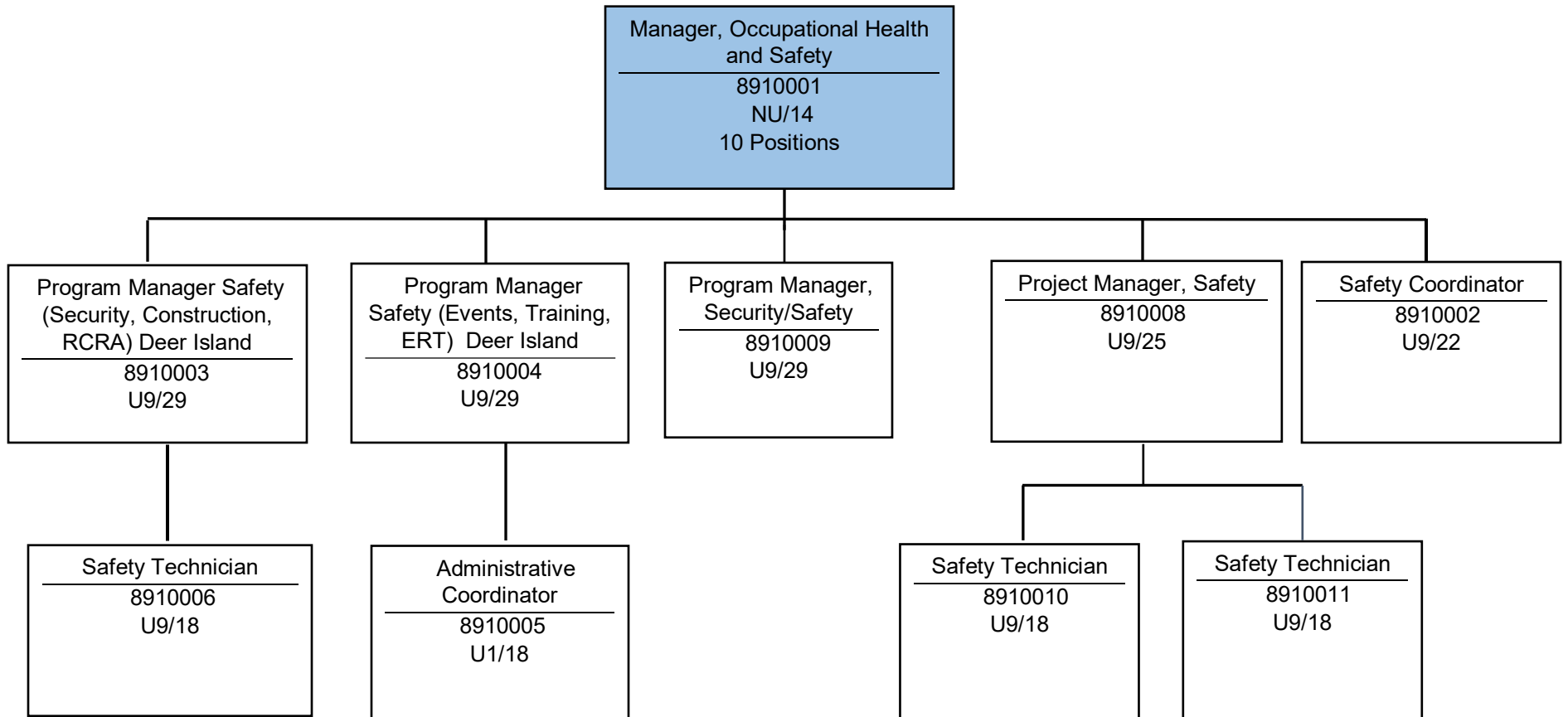
The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job.

While performing the duties of this job, the employee regularly works in either an office or field environment which involves traveling to worksites. The employee often works in outside weather conditions. The employee often works near moving mechanical parts and is occasionally exposed to wet and/or humid conditions and vibration. The employee often works in high, precarious places and is occasionally exposed to fumes or airborne particles, toxic or caustic chemicals, and risk of electrical shock. The employee may be exposed to strenuous, dangerous, or stressful conditions. While in the field, the employee uses gloves, helmets, respirators, and other personal protective and safety equipment to minimize the risk of illness and injury.

The noise level in the work environment is usually loud in field settings, and moderately quiet in office settings.

July 2021

**Administration Division
Occupational Health and Safety Department
March 2022**




STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: March 16, 2022
SUBJECT: Delegated Authority Report – February 2022

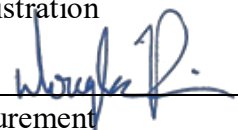


COMMITTEE: Administration, Finance & Audit

INFORMATION
 VOTE


Michele S. Gillen
Director, Administration

Jacqueline Collins, Administrative Coordinator
Barbara Aylward, Administrator A & F
Preparer/Title


Douglas J. Rice
Director of Procurement

RECOMMENDATION:

For information only. Attached is a listing of actions taken by the Executive Director under delegated authority for the period February 1 – 28, 2022.

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 \$25,000; 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 \$3,500,000.00 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 \$3,500,000.00 if the award is to the lowest bidder.

Purchase of chemicals required for day-to-day operations:

Up to \$15,000,000.00 where the recommendation to award is to the lowest responsive and eligible bidder under a competitive procurement conducted by the Authority

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.

Personnel:

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 FEBRUARY 1 - 28, 2022

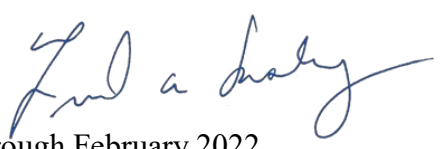
NO.	DATE OF AWARD	TITLE AND EXPLANATION	CONTRACT	AMEND/CO	COMPANY	FINANCIAL IMPACT
C-1.	02/02/22	GRAVITY THICKENER UPGRADE, DEER ISLAND TREATMENT PLANT FINAL BALANCING CHANGE ORDER TO DECREASE THE FOLLOWING ITEMS: REVISE THE EXTERIOR STAIR LANDING DETAIL, FIRE WATCH SERVICES, REDUCE LENGTH OF PERIMETER WALKWAY AT GRAVITY THICKENERS 5 AND 6.	7428	18	WALSH CONSTRUCTION COMPANY II, LLC.	(\$26,922.25)
C-2.	02/09/22	AIR COMPRESSOR SYSTEM SERVICES AWARD OF A CONTRACT TO THE LOWEST RESPONSIVE BIDDER FOR AIR COMPRESSOR SYSTEM SERVICES LOCATED AT VARIOUS AUTHORITY FACILITIES FOR A TERM OF 1,095 CALENDAR DAYS.	OP-435	AWARD	COOLING & HEATING SPECIALISTS, INC.	\$248,210.00
C-3.	02/15/22	BOILER AND WATER HEATER SERVICE FINAL BALANCING CHANGE ORDER TO DECREASE THE FOLLOWING BID ITEMS: BOILER PREVENTIVE MAINTENANCE, WATER HEATER CLEANING AT CHELSEA CREEK, ON SITE EMERGENCY REPAIR, MANUFACTURER'S AUTHORIZED SERVICE REPRESENTATIVE, WATER TREATMENT CHEMICALS AND PARTS.	OP-394	1	COOLING & HEATING SPECIALISTS, INC.	(\$142,616.43)
C-4.	02/16/22	NUT ISLAND HEADWORKS ODOR CONTROL AND HVAC IMPROVEMENTS AIR HANDLING UNIT 3 AND 4 FEEDER CABLES AND BREAKERS; ENERGY MANAGEMENT CONTROL PANEL AND WIRE DEMO; ODOR CONTROL DAMPER WIRING AND CONTROLS; ODOR CONTROL FAN SPEED CONTROL WIRING; ODOR CONTROL DAMPER CONTROL STATION AND DISCONNECT RELOCATION; ODOR CONTROL FAN PROTECTION PANEL WIRING.	7548	8	WALSH CONSTRUCTION COMPANY II, LLC.	\$161,181.94
C-5.	02/22/22	CATHODIC PROTECTION TESTING SYSTEM SERVICE AWARD OF A CONTRACT TO THE LOWEST AND RESPONSIVE BIDDER FOR CATHODIC PROTECTION TESTING SYSTEM SERVICE FOR A TERM OF 365 CALENDAR DAYS.	OP-393	AWARD	ARK ENGINEERING & TECHNICAL SERVICES, INC.	\$49,900.00

PURCHASING DELEGATED AUTHORITY ITEMS February 1 - 28

NO.	DATE OF AWARD	TITLE AND EXPLANATION	CONTRACT	AMENDMENT	COMPANY	FINANCIAL IMPACT
P-1	02/07/22	24-HOUR EMERGENCY OIL SPILL RESPONSE Award of a one-year Sole Source purchase order contract for 24-Hour Emergency Oil Spill Response at the Deer Island Treatment Plant			Boston Line and Service Company, Inc.	\$28,488.57
P-2	02/15/22	SYSTEM ADMINISTRATION II CONSULTANT Award of purchase order contract under State Contract ITS77 to the lowest responsive bidder for a System Administration II Consultant to fill the position until a qualified replacement is found	WRA-5075Q		Computer & Engineering Services, Inc.	\$69,225.00
P-3	02/15/22	1600 CROWDSTRIKE FALCON COMPLETE ENDPOINT LICENSES, 400 FALCON COMPLETE SERVER LICENSES SUPPORT AND TRAINING Award of a purchase order under State Contract ITS75 to the lowest responsive bidder for 1,600 CrowdStrike Falcon Complete Endpoint Licenses, 400 Falcon Complete Server Licenses, One Year of Support, and Training	WRA-5072Q		IntraSystems, Inc.	\$106,785.00
P-4	02/15/22	PURCHASE OF HARDWARE AND SOFTWARE MAINTENANCE AND SUPPORT Award of two separate three-year Sole Source purchase order contracts for Hardware and Software Maintenance and Support for MWRA's SCADA and PICS Networks			Waterfall Security Solutions, Ltd.	\$71,307.00 \$80,735.00
P-5	02/15/22	SUPPLY AND DELIVERY OF SODA ASH TO CLINTON WATER TREATMENT PLANT Award of a three-year purchase order contract to the lowest responsive bidder for the Supply and Delivery of Soda Ash to the Clinton Water Treatment Plant	WRA-5067		Astro Chemicals, Inc.	\$758,550.00
P-6	02/16/22	PURCHASE OF TEN LONG-BED ELECTRIC BURDEN CARRIERS Award of a purchase order to the lowest responsive bidder for ten long-bed electric burden carriers for the Deer Island Treatment Plant	WRA-5066		Brodie, Inc.	\$124,246.00
P-7	02/22/22	PURCHASE OF THREE TRENCH BOXES Award of a purchase order to the lowest responsive bidder for three trench boxes to support the overall maintenance and operation of the Metropolitan Water System	WRA-5049		North East Shoring Corporation, Inc.	\$49,450.00
P-8	02/22/22	THREE YEARS MAINTENANCE AND SERVICE FOR THE GAI-TRONICS PAGE PARTY SYSTEM Award of a Sole-Source purchase order for three years of maintenance and service for the GAI-Tronics Page Party System, which provides reliable communication such as two way radios or cellular services at various MWRA facilities			GAI-Tronics Corporation	\$93,000.00
P-9	02/25/22	PURCHASE OF 600 HEWLETT PACKARD DOCKING STATIONS Award of a purchase order under State Contract ITC73 to the lowest responsive bidder for 600 Hewlett Packard Docking Stations	WRA-5069Q		GLI Capital Group, Inc.	\$91,782.00
P-10	02/25/22	PROVIDE A SENIOR WEB DEVELOPER CONSULTANT Award of a purchase order contract under State Contract ITS77 Cat 1A and 1B to the lowest responsive bidder to provide a Senior Web Developer Consultant for 975 billable hours (26 weeks)	WRA-5076Q		Computer & Engineering Services, Inc.	\$92,625.00

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: March 16, 2022
SUBJECT: FY22 Financial Update and Summary through February 2022



COMMITTEE: Administration, Finance & Audit

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

INFORMATION
 VOTE



Thomas J. Durkin
Director, Finance

RECOMMENDATION:

For information only. This staff summary provides the financial results and variance highlights for Fiscal Year 2022 through February 2022, comparing actual spending to the budget, and includes a projection to June 30, 2022.

DISCUSSION:

MWRA is continuing the practice of setting aside favorable Capital Finance variances into the Defeasance Account with the intention of recommending Board approval to use these funds to defease debt and provide rate relief in future years. Targeted defeasances are a critical component of the Authority's multi-year rate management strategy. As such, in February the year-to-date debt related savings of \$9.7 million was transferred to the Defeasance Account. This variance is primarily due to lower than budgeted variable interest expense.

The total Year-to-Date variance for the FY22 CEB is \$18.1 million, due to lower direct expenses of \$14.5 million, lower indirect expenses of \$0.9 million, and higher revenue of \$2.7 million. The year-end favorable variance is projected at \$32.3 million, of which \$15.7 million is related to debt service. Beyond debt service savings, staff project a surplus of approximately \$16.6 million at year-end of which \$12.6 million would be from lower direct expenses, \$1.3 million from lower indirect expenses, and \$2.7 million from greater than budgeted revenues.

As the year progresses and more actual spending information becomes available, staff will continue to refine the year-end projections and update the Board accordingly.

FY22 Current Expense Budget

The CEB expense variances through February 2022 by major budget category were:

- Lower Direct Expenses of \$14.5 million or 8.7% under budget. Spending was lower for Wages & Salaries, Maintenance, Fringe Benefits, Other Materials, Workers’s Compensation, Professional Services, Chemicals, Other Services, Training & Meetings, and Overtime. Spending was higher than budget for Utilities.
- Lower Indirect Expenses of \$0.9 million or 2.2% under budget primarily due to lower Watershed Reimbursements and HEEC expenses. Spending was higher for insurance payments/claims.
- Debt Service expenses were right on budget after the transfer to the defeasance account, driven by lower than budgeted variable interest expense and the impact of the refunding and new money transactions.

**FY22 Budget and FY22 Actual Variance by Expenditure Category
(in millions)**

	FY22 Budget YTD	FY22 Actual YTD	\$ Variance	% Variance
Direct Expenses	\$167.1	\$152.6	-\$14.5	-8.7%
Indirect Expenses	\$40.3	\$39.4	-\$0.9	-2.2%
Capital Financing	\$305.6	\$305.6	\$0.0	0.0%
Total	\$513.0	\$497.6	-\$15.4	-3.0%

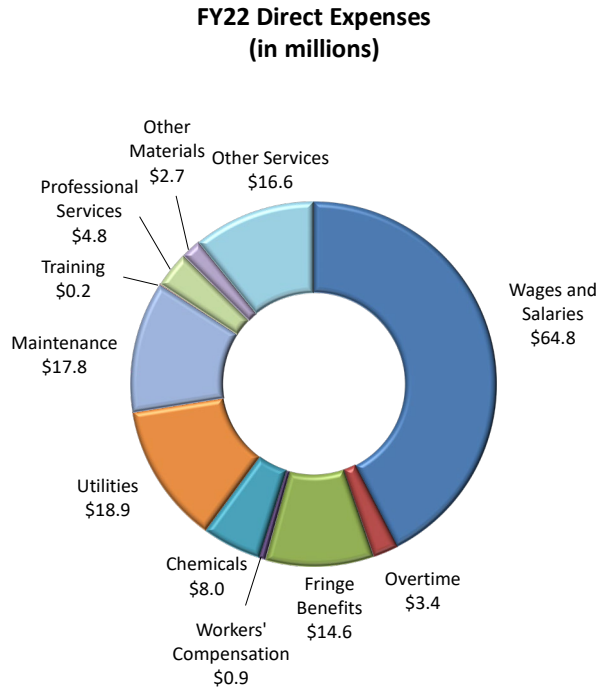
Totals may not add due to rounding

Total Revenues of \$550.9 million were \$2.7 million or 0.5% over budget due to higher Other Revenue and Other User Charges.

Please refer to Attachment 1 for a more detailed comparison by line item of the budget variances for FY22.

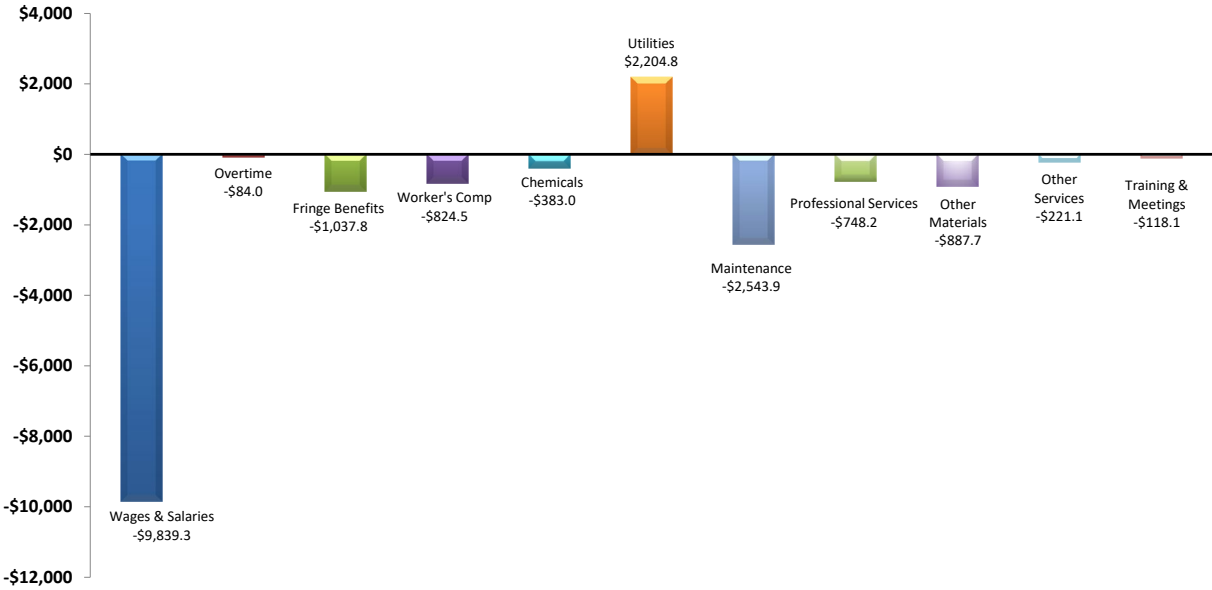
Direct Expenses

FY22 direct expenses through February totaled \$152.6 million, which was \$14.5 million or 8.7% less than budgeted.



Lower spending for Wages & Salaries, Maintenance, Fringe Benefits, Other Materials, Worker's Compensation, Professional Services, Chemicals, Other Services, Training & Meetings, and Overtime. Spending was higher than budget for Utilities.

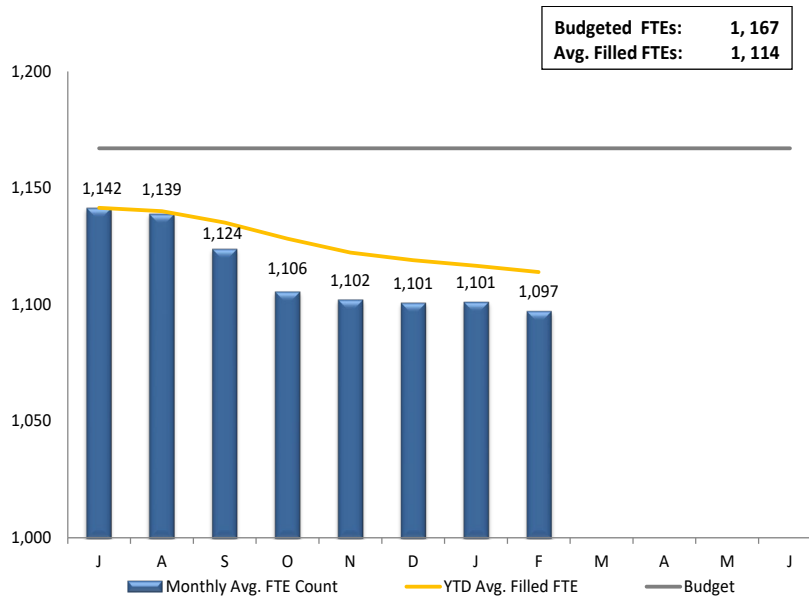
**FY22 Direct Expense Variance
(in thousands)**



Wages and Salaries

Wages and Salaries are under budget by \$9.8 million or 13.2%. Through February, there were 53 fewer average FTEs (1,114 versus 1,167 budget) or 4.5% and lower average salaries for new hires versus retirees. The timing of backfilling vacant positions also contributed to Regular Pay being under budget.

FY22 MWRA Full Time Equivalent (FTE) Position Trend



Maintenance

Maintenance was less than budget by \$2.5 million or 12.5%, largely driven by the timing of projects. Maintenance Materials are under budget by \$1.6 million, driven by Plant and Machine Materials of \$882,000, Special Equipment Materials of \$348,000, HVAC Materials of \$241,000, and Pipe Materials of \$122,000, all largely due to timing. Maintenance Services are under budget by \$0.9 million driven by Special Equipment Services of \$352,000 primarily due to timing of service contracts and a lower award than budgeted for the telephone system maintenance contract, Building & Grounds Services of \$337,000 due to timing of service contracts, Plant and Machine Services of \$306,000 primarily due to timing of Deer Island scrubber work, less than expected boiler work and a delay on the final invoice for the Deer Island coating contract, and Computer Services of \$184,000 due to HP and Cisco Smartnet renewal contracts being less than budgeted and the Distributed Antenna System Support agreement at Deer Island being delayed.

Fringe Benefits

Fringe Benefit spending was lower than budget by \$1.0 million or 6.6%. This is primarily driven by lower Health Insurance costs of \$769,000 due to fewer than budgeted participants in health insurance plans, increased contribution by new hires vs. lower contribution rates of staff retiring, and the shift from family to individual plans which are less expensive.

Other Materials

Other Materials were lower than budget by \$0.9 million or 24.6%, driven by less than budgeted spending for Other Materials of \$764,000 primarily due to funding for the office space modifications now included in the CIP, Equipment/Furniture of \$115,000, Vehicle Purchases/Replacements of \$93,000, Computer Software of \$88,000, and Office Supplies of \$63,000, all largely due to the timing of purchasing. This underspending was partially offset by higher Computer Hardware of \$314,000 in MIS due to additional hardware purchased for teleworking.

Worker's Compensation

Worker's Compensation expenses were lower than budget by \$0.8 million or 47.3%. The lower expenses were due to favorable variances in Compensation Payments of \$544,000, Medical Payments of \$244,000, and Administrative Expenses of \$36,000. Due to uncertainties of when spending will happen, the budget is spread evenly throughout the year.

Professional Services

Professional Services were lower than budget by \$0.7 million or 13.4%. The overall underspending is driven by lower spending in Computer Systems Consultant of \$722,000 in MIS primarily due to a reduction in scope for Managed Security Service Provider (MSSP) Year 5 monitoring extension and a delay in Internet/Intranet Pipeline project, and Engineering of \$188,000 primarily in Field Operations. This is partially offset by higher Other Services of \$253,000 primarily for design work related to the staff move from the Charlestown Navy Yard to Deer Island and the Chelsea facility.

Chemicals

Chemicals were lower than budget by \$0.4 million or 4.6%. Lower than budget spending on Hydrogen Peroxide of \$306,000 driven by Deer Island based on usage as excessive rainfall helped lower H₂S levels, Soda Ash of \$73,000 driven by Water Operations due to lower average flows at Carroll, and Activated Carbon of \$68,000 primarily driven by Deer Island due to timing of replacements. Deer Island flows are 20.3% higher than the budget and Carroll flows are 2.9% lower than the budget through February. 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 \$0.2 million or 1.3%. Lower than budgeted spending for Sludge Pelletization of \$77,000 due to lower sludge quantities, Telecommunication costs of \$46,000, Space/Lease Rentals of \$42,000, and Health/Safety costs of \$21,000.

Training & Meetings

Training & Meetings expenses were lower than budget by \$0.1 million or 43.6% driven by reduced spending during the pandemic, as well as the timing of spending.

Overtime

Overtime expenses were less than budget by \$84,000 or 2.4%. Lower spending in Field Operations of \$174,000 and Engineering & Construction of \$76,000 are partially offset by higher spending at Deer Island of \$172,000 for storm and shift coverage. Year-to-date rainfall was a major contributor for the increased overtime. In addition, vacancies at the Thermal Power Plant continue to drive higher overtime costs than anticipated.

Utilities

Utilities were greater than budget by \$2.2 million or 13.2%. Overspending in Electricity of \$2.5 million primarily at Deer Island (\$1.7 million) is driven by power demand charges being more than budgeted based on flows, T&D rates from Eversource, and higher real time market prices for the non-block purchases under the Direct Energy contract. Also, Field Operations is \$0.8 million is over budget primarily due to new T&D rates and quantity. Diesel Fuel is underspent by \$0.2 million driven by Deer Island Treatment Plant due to timing of deliveries.

Indirect Expenses

Indirect Expenses totaled \$39.4 million, which is \$0.9 million or 2.2% under budget. The variance is driven by lower Watershed Reimbursements of \$868,000 and lower HEEC costs of \$176,000, partially offset by higher insurance premiums/claims of \$162,000.

Based on FY22 operating activity only, the Watershed Division is \$600,000 or 5.6% under budget. Lower spending on Equipment, Telecommunications, Professional Services, and Fringe are the drivers of the underspending. When factoring in the FY21 balance forward (\$69,000) which was

paid during Q1 of FY22, Watershed Reimbursement is \$532,000 or 4.9% below budget through February 2022. In addition, the PILOT payment was made in February in the amount of \$8.5 million, which is \$336,000 or 3.8% below budget.

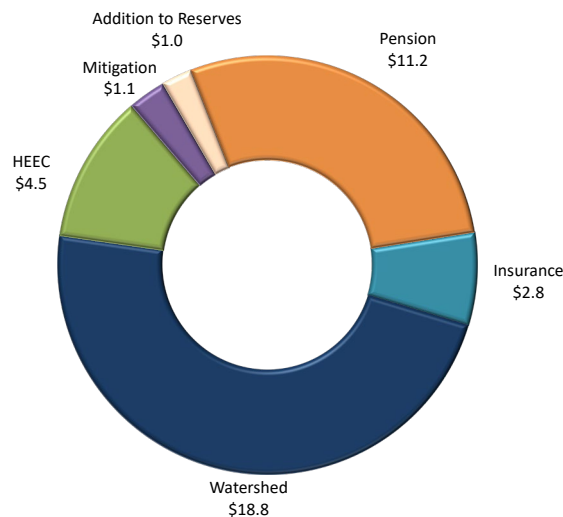
FY22 Watershed Variance

\$ in millions	YTD Budget	YTD Actual	YTD \$ Variance	YTD % Variance
Operating Expenses	11.5	11.0	-0.5	-4.0%
Operating Revenues - Offset	0.7	0.8	0.1	21.1%
FY22 Operating Totals	10.8	10.2	-0.6	-5.6%
DCR Balance Forward (FY21 4th quarter accrual true-up)	0.0	0.1	0.1	
FY22 Adjusted Operating Totals	10.8	10.3	-0.5	-4.9%
PILOT	8.8	8.5	-0.3	-3.4%
Total Watershed Reimbursement	19.6	18.8	-0.8	-4.2%

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 quarterly in arrears. Accruals are being made monthly based on estimated expenses provided by DCR and true-up quarterly based on the quarterly 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 February was 141 (and 133.8 on a year-to-date basis) vs. a budget of 150.

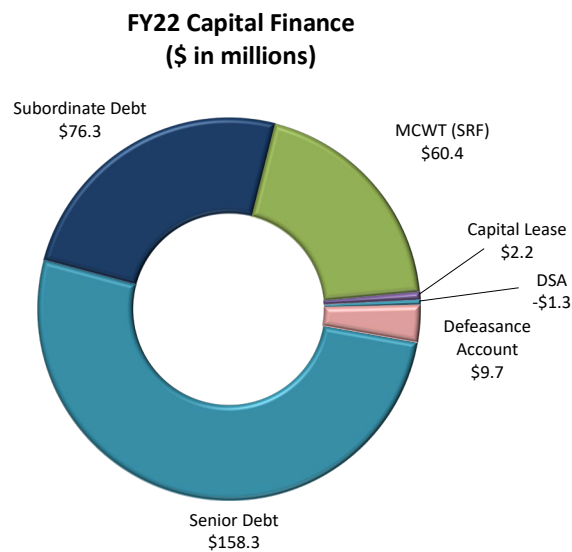
**FY22 Indirect Expenses
(in millions)**



Capital Financing

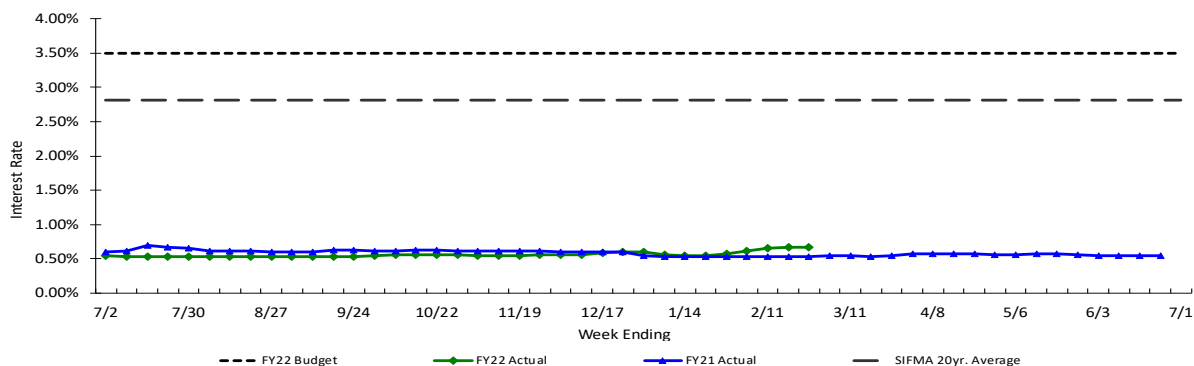
Capital Financing expenses include the principal and interest payments for fixed senior debt, the variable subordinate debt, the Massachusetts Clean Water Trust (SRF) obligation, the commercial paper program for the local water pipeline projects, current revenue for capital, Optional Debt Prepayment,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

Capital Financing expenses for FY22 through February totaled \$305.6 million, which is on budget after the transfer of \$9.7 million to the Defeasance account, driven by lower than budgeted variable interest expense of \$6.9 million due to lower interest rates, and \$2.7 million related to the refunding and new money transaction.



The graph below reflects the FY22 actual variable rate trend by week against the FY22 Budget.

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



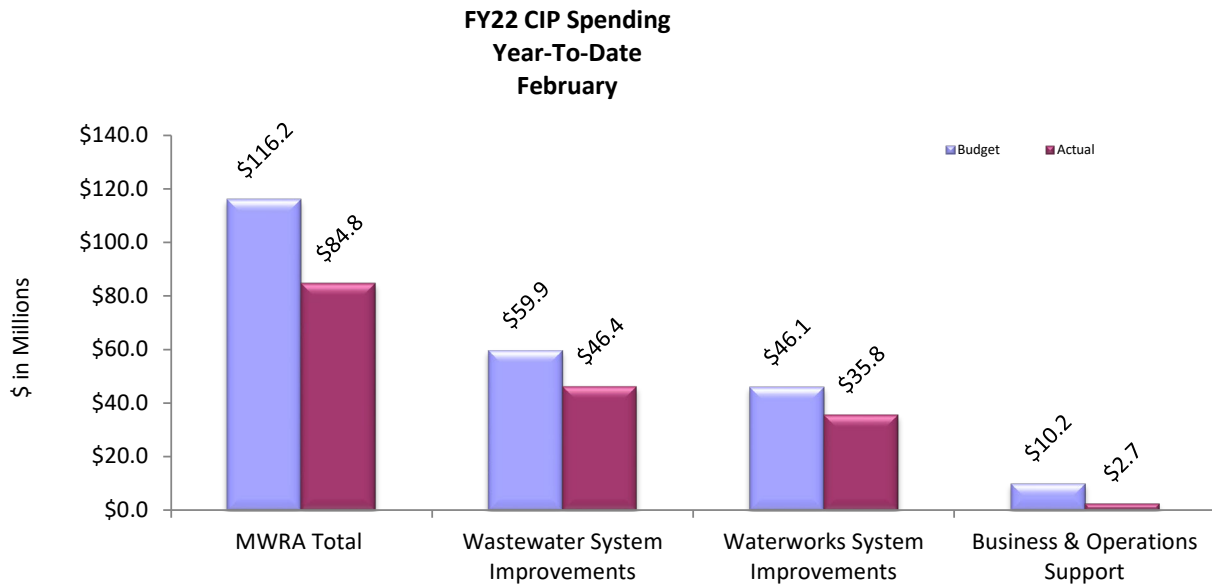
Revenue & Income

Revenues of \$550.9 million were \$2.7 million or 0.5% over budget. Other Revenue was \$1.8 million or 34.8% over budget due to by higher Miscellaneous Revenue of \$886,000 driven by \$443,000 in reimbursement from the Commonwealth of Massachusetts for Biobot costs associated with FY21, Energy Rebates of \$697,000, and Income from the Disposal of Equipment of \$285,000. Other User Charges were over budget by \$0.9 million or 13.6% primarily for unplanned water use by the Town of Burlington. Investment Income was \$73,000 or 2.8% over budget due to higher than budgeted average balances offset by lower than budgeted interest rates (0.50% actual vs. 0.54%).

FY22 Capital Improvement Program

Capital expenditures in Fiscal Year 2022 through February total \$84.8 million, \$31.4 million or 27.0% under budget.

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 \$59.9 million, \$21.9 million or 26.8% under budget.



Overall, CIP spending reflects the underspending in Wastewater Improvements (\$13.5 million), Waterworks (\$10.3 million) and Business and Operations Support (\$7.5 million). Major variances in Wastewater are primarily due to updated schedule for the Prison Point Rehabilitation contract, timing of community grants and loans for the I/I Local Financial Assistance Program, timing of work for the Winthrop Terminal Facility VFD Replacement and Gravity Thickener contracts, and completion of some design and inspection tasks later than anticipated for the Ward Street and Columbus Park Headworks Upgrades Design/ESDC. This was partially offset by planned FY21

work completed in FY22 for the Chelsea Creek Headworks Upgrades and Nut Island Odor Control and HVAC Improvements.

Waterworks variances are primarily due to updated schedules for NIH Section 89 & 29 Replacement and New Connecting Mains CP3 - Sections 23, 24, 47 Final Design/CA/RI, timing of community loan distributions for the Water Loan Program, and reduction in scope for Sections 50 & 57 Water Pipeline. This was partially offset by an earlier than anticipated land purchase for the Metropolitan Tunnel Redundancy Administration, Legal, Public Outreach contract, contractor progress for WASM 3 Rehabilitation, CP-1 and WASM/Spot Pond Supply Mains Pressure Reducing Valves Construction, and timing of work for the Tunnel Program Support Services.

**FY22 Budget and FY22 Actual Variance by Program
(in millions)**

\$ in Millions	Budget	Actuals	\$ Var.	% Var.
Wastewater System Improvements				
Interception & Pumping	30.0	24.0	(6.0)	-20.0%
Treatment	8.5	4.3	(4.2)	-49.0%
Residuals	0.0	0.0	0.0	0.0%
CSO	2.2	4.6	2.4	107.7%
Other	19.2	13.4	(5.7)	-29.9%
Total Wastewater System Improvements	\$59.9	\$46.4	(\$13.5)	-22.6%
Waterworks System Improvements				
Drinking Water Quality Improvements	1.7	2.1	0.3	19.5%
Transmission	17.2	20.4	3.2	18.6%
Distribution & Pumping	11.2	2.9	(8.3)	-74.1%
Other	16.0	10.4	(5.6)	-35.1%
Total Waterworks System Improvements	\$46.1	\$35.8	(\$10.3)	-22.4%
Business & Operations Support	\$10.2	\$2.7	(\$7.5)	-73.7%
Total MWRA	\$116.2	\$84.8	(\$31.4)	-27.0%

Totals may not add due to rounding

FY22 Spending by Program:

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

Water Distribution and Pumping: Net underspending of \$8.3 million

- \$5.5 million for Section 89 & 29 Replacement Construction and REI and \$0.8 million for CP-3 CP3-Sections 23, 24, 47 Final Design/CA/RI due to updated schedules.
- \$0.9 million for Sections 50 & 57 Water Rehabilitation - Design/ESDC due to contract scope reduction.
- \$0.4 million for SEH Redundancy Design CA/RI due to less than anticipated budgeted spending.
- \$0.3 million for Cathodic Protection Shafts N & W due to schedule change.

Business & Operations Support: Net underspending of \$7.5 million

- \$2.0 million for As-Needed Technical Assistance and Resident Engineering and Inspection Services due to lower than projected task order work.
- \$0.9 million for Cabling, \$0.6 million for Lawson Upgrade, \$0.3 million for Sans Storage, \$0.3 million for Instrumentation & Controls and \$0.2 million for Enterprise Data Management, all due to timing of work.
- \$0.8 million for Vehicle Purchases due to timing of purchases.
- \$0.4 million for Office Space Modifications due to spending later than anticipated.

Interception & Pumping: Net underspending of \$6.0 million

- \$5.2 million for Prison Point Design CA/RI and Construction due to updated construction schedule.
- \$1.5 million for Ward Street & Columbus Park Headworks - Design/CA due to completion of some design and inspection tasks later than anticipated.
- \$0.8 million for Interceptor Renewal No. 3, Dorchester Interceptor Sewer – Construction due to timing of contractor work. Contract is substantially complete.
- This underspending was partially offset by overspending of \$1.7 million for Chelsea Creek Headworks Upgrades - Construction and REI, and \$0.4 million for Nut Island Odor Control & HVAC Improvements Phase 2 – Construction due to work scheduled for FY21 performed in FY22.

Other Wastewater: Net underspending of \$5.7 million

- \$5.7 million for Community I/I due to timing of community distributions of grants and loans.

Other Waterworks: Net underspending of \$5.6 million

- \$5.1 million for Local Financial Assistance due to timing of community loan distributions.
- \$0.3 million for Water System Hydraulic Model due to slower than anticipated start-up.

Wastewater Treatment: Net underspending of \$4.2 million

- \$1.8 million for Winthrop Terminal Facility VFD and Motors Replacements, \$0.6 million for Gravity Thickener Rehabilitation, and \$0.5 million for Miscellaneous VFD Replacements due to timing of work.
- \$0.2 million each for Motor Control Center and Switchgear Replacement - Design/ESDC/REI, Fire Alarm System Replacement - Design/CA, and Clinton Screw Pump Replacement due to updated construction schedules.
- \$0.1 million for Clarifier Rehab Phase 2 Design due to time extension.

Waterworks Transmission: Net overspending of \$3.2 million

- \$2.5 million for WASM 3 Rehabilitation, CP-1, and \$1.1 million for WASM/Spot Pond Supply Mains Pressure Reducing Valves Improvements due to contractor progress.
- \$1.9 million for Metropolitan Tunnel Redundancy Administration, Legal & Public Outreach due to earlier than anticipated land purchase.
- \$0.3 million for Wachusett Dam Bridge Crane Removal for FY21 planned work completed in FY22.
- \$0.3 million for Program Support Services due to timing of consultant work.

- This overspending was partially offset by underspending of \$0.8 million for Tunnel Redundancy Preliminary Design & MEPA Review and \$0.3 million for WASM 3 Design due to timing of consultants work, and \$0.3 million for Watershed Land due to timing of land purchases.

Combined Sewer Overflows: Net overspending of \$2.4 million

- \$1.4 million for Somerville Marginal In-System Storage due to timing of payment.
- \$0.7 million for East Boston CSO Control - BOS014 due to work completed earlier than anticipated.
- \$0.6 million for Dorchester Inflow Removal Construction due to timing of payment.
- This overspending was partially offset by underspending of \$0.3 million for CSO Performance Assessment due to time extension.

Drinking Water Quality Improvements: Net overspending of \$0.3 million

- \$0.2 million for As-Needed Technical Assistance due to greater than projected task order work.

Construction Fund Balance

The construction fund balance was \$142.2 million as of the end of February. Commercial Paper/Revolving Loan available capacity was \$197 million.

ATTACHMENTS:

Attachment 1 – Variance Summary February 2022

Attachment 2 – Current Expense Variance Explanations

Attachment 3 – Capital Improvement Program Variance Explanations

Attachment 4 – Year-End Current Expense Projections vs. Budget

ATTACHMENT 1
FY22 Actuals vs. FY22 Budget

	Feb 2022 Year-to-Date				
	Period 8 YTD Budget	Period 8 YTD Actual	Period 8 YTD Variance	%	FY22 Approved
<u>EXPENSES</u>					
WAGES AND SALARIES	\$ 74,646,487	\$ 64,807,163	\$ (9,839,324)	-13.2%	\$ 116,680,341
OVERTIME	3,471,838	3,387,831	(84,007)	-2.4%	5,156,681
FRINGE BENEFITS	15,624,718	14,586,908	(1,037,810)	-6.6%	23,253,137
WORKERS' COMPENSATION	1,742,773	918,304	(824,469)	-47.3%	2,614,159
CHEMICALS	8,338,216	7,955,252	(382,964)	-4.6%	12,202,286
ENERGY AND UTILITIES	16,721,786	18,926,568	2,204,782	13.2%	24,749,865
MAINTENANCE	20,304,062	17,760,204	(2,543,858)	-12.5%	32,442,382
TRAINING AND MEETINGS	271,022	152,971	(118,051)	-43.6%	473,994
PROFESSIONAL SERVICES	5,567,774	4,819,544	(748,230)	-13.4%	8,773,258
OTHER MATERIALS	3,606,038	2,718,388	(887,650)	-24.6%	8,334,774
OTHER SERVICES	16,780,920	16,559,782	(221,138)	-1.3%	25,129,234
TOTAL DIRECT EXPENSES	\$ 167,075,634	\$ 152,592,915	\$ (14,482,718)	-8.7%	\$ 259,810,111
INSURANCE	\$ 2,654,346	\$ 2,815,891	\$ 161,545	6.1%	\$ 3,943,600
WATERSHED/PILOT	19,622,592	18,755,059	(867,533)	-4.4%	26,731,490
HEEC PAYMENT	4,706,122	4,530,112	(176,010)	-3.7%	6,991,953
MITIGATION	1,139,762	1,139,762	-	0.0%	1,693,360
ADDITIONS TO RESERVES	950,819	950,819	-	0.0%	1,412,647
RETIREMENT FUND	11,205,000	11,205,000	-	0.0%	11,205,000
POST EMPLOYEE BENEFITS	-	-	-	---	4,673,624
TOTAL INDIRECT EXPENSES	\$ 40,278,641	\$ 39,396,643	\$ (881,999)	-2.2%	\$ 56,651,674
STATE REVOLVING FUND	\$ 60,418,411	\$ 60,418,411	\$ -	0.0%	\$ 95,673,399
SENIOR DEBT	161,081,837	158,349,000	(2,732,837)	-1.7%	244,957,128
DEBT SERVICE ASSISTANCE	(1,287,870)	(1,287,870)	-	0.0%	(1,287,870)
CURRENT REVENUE/CAPITAL	-	-	-	---	17,200,000
SUBORDINATE MWRA DEBT	83,232,599	83,232,599	-	0.0%	125,046,218
LOCAL WATER PIPELINE CP	-	-	-	---	6,120,127
CAPITAL LEASE	2,165,329	2,165,329	-	0.0%	3,217,060
VARIABLE DEBT	-	(6,937,027)	(6,937,027)	---	-
DEFEASANCE ACCOUNT	-	9,669,864	9,669,864	---	-
DEBT PREPAYMENT	-	-	-	---	5,609,355
TOTAL CAPITAL FINANCE EXPENSE	\$ 305,610,305	\$ 305,610,305	\$ -	0.0%	\$ 496,535,417
TOTAL EXPENSES	\$ 512,964,580	\$ 497,599,863	\$ (15,364,717)	-3.0%	\$ 812,997,202
<u>REVENUE & INCOME</u>					
RATE REVENUE	\$ 533,133,462	\$ 533,133,462	\$ -	0.0%	\$ 792,084,000
OTHER USER CHARGES	6,369,066	7,237,447	868,381	13.6%	9,222,883
OTHER REVENUE	5,184,912	6,991,785	1,806,873	34.8%	6,479,203
RATE STABILIZATION	841,346	841,346	-	0.0%	1,250,000
INVESTMENT INCOME	2,602,278	2,674,797	72,519	2.8%	3,961,116
TOTAL REVENUE & INCOME	\$ 548,131,063	\$ 550,878,837	\$ 2,747,772	0.5%	\$ 812,997,202

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY22 Budget YTD February	FY22 Actuals February	FY22 YTD Actual vs. FY22 Budget		Explanations
			\$	%	
Direct Expenses					
Wages & Salaries	74,646,487	64,807,163	(9,839,324)	-13.2%	Wages and Salaries are under budget by \$9.8 million. Year to date, there have been 53 fewer average FTEs (1,114 versus 1,167 budget), lower average new hire salaries versus retirees, the timing of backfilling vacant positions.
Overtime	3,471,838	3,387,831	(84,007)	-2.4%	Overtime expenses were less than budget by \$84,000 or 2.4%. Lower spending mainly in Field Operations of \$216,000 primarily for planned and emergency overtime being under budget, Engineering & Construction of \$76,000, and Administration of \$38,000 are partially offset by higher spending at Deer Island of \$172,000 for storm and shift coverage. Year-to-date rainfall was a major contributor for the increased overtime. In addition, vacancies at the Thermal Power Plant continue to drive higher overtime costs than anticipated.
Fringe Benefits	15,624,718	14,586,908	(1,037,810)	-6.6%	Lower than budget in Health Insurance of \$769,000, 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	1,742,773	918,304	(824,469)	-47.3%	The lower expenses were due to favorable variances in Compensation Payments of \$544,000, Medical Payments of \$244,000, and Administrative Expenses of \$36,000. Due to uncertainties of when spending will happen, the budget is spread evenly throughout the year.
Chemicals	8,338,216	7,955,252	(382,964)	-4.6%	Chemicals were lower than budget by \$0.4 million or 4.6%. Lower than budget spending on Hydrogen Peroxide of \$305,000 driven by DITP based on usage as excessive rainfall helped lower H2S levels, Soda Ash of \$73,000 driven by Water Operations due to lower average flows at CWTP, and Activated Carbon of \$68,000 primarily driven by Deer Island due to timing of replacements. DITP flows are 20.3% higher than the budget and CWTP flows are 2.9% lower than the budget through February. 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	16,721,786	18,926,568	2,204,782	13.2%	Utilities were greater than budget by \$2.2 million or 13.2%. Overspending in Electricity of \$2.5 million primarily at DITP of \$1.7 million driven by power demand charges being more than budgeted based on flows, T&D rates from Eversource, and higher real time market prices for the non-block purchases under the Direct Energy contract. Also, Field Operations of \$0.8 million is over budget primarily due to new T&D rates and quantity. Diesel Fuel is underspent by \$0.2 million driven by Deer Island Treatment Plant due to timing of deliveries.

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY22 Budget YTD February	FY22 Actuals February	FY22 YTD Actual vs. FY22 Budget		Explanations
			\$	%	
Maintenance	20,304,062	17,760,204	(2,543,858)	-12.5%	Maintenance was less than budget by \$2.5 million or 12.5%, largely driven by the timing of projects. <i>Maintenance Materials</i> are under budget by \$1.6 million, driven by Plant and Machine Materials of \$882,000, Special Equipment Materials of \$348,000, HVAC Materials of \$241,000, and Pipe Materials of \$122,000, all largely due to timing. <i>Maintenance Services</i> are under budget by \$0.9 million driven by Special Equipment Services of \$352,000 primarily due to timing of service contracts and a lower award than budgeted for the telephone system maintenance contract, Building & Grounds Services of \$337,000 due to timing of service contracts, Plant and Machine Services of \$306,000 primarily due to timing of DITP scrubber work, less than expected boiler work and a delay on the final invoice for the DITP coating contract, and Computer Services of \$184,000 due to HP and Cisco Smartnet renewal contracts being less than budgeted and the Distributed Antenna System Support agreement at DITP being delayed.
Training & Meetings	271,022	152,971	(118,051)	-43.6%	Lower than budget spending on Training & Meetings by \$118,000 is driven by MIS of \$66,000, Tunnel Redundancy of \$17,000, Procurement of \$8,000, and DITP of \$6,000, partially offset by higher spending in Engineering & Construction of \$10,000.
Professional Services	5,567,774	4,819,544	(748,230)	-13.4%	Lower than budget spending primarily for Computer Systems Consultant of \$722,000 in MIS primarily due to a reduction in scope of Managed Security Services Provider (MSSP) Year 5 monitoring extension and delay in Internet/Intranet Pipeline Upgrade project and Engineering of \$188,000 primarily in Field Operations, partially offset by Other Services of \$253,000 primarily for design work for the move from CNY to DI and Chelsea.
Other Materials	3,606,038	2,718,388	(887,650)	-24.6%	Other Materials were lower than budget by \$0.9 million or 24.6%, driven by less than budgeted spending for Other Materials of \$764,000 primarily due to funding for the office space modifications now coming from the CIP, Equipment/Furniture of \$115,000, Vehicle Purchases/Replacements of \$93,000, Computer Software of \$88,000, and Office Supplies of \$63,000, all largely due to the timing of purchasing. This underspending was partially offset by Computer Hardware of \$314,000 in MIS due to additional hardware purchased for teleworking.
Other Services	16,780,920	16,559,781	(221,139)	-1.3%	Other Services were lower than budget by \$0.2 million or 1.3%. Lower than budgeted spending for Sludge Pelletization of \$77,000 due to lower sludge quantities, Telecommunication costs of \$46,000, Space/Lease Rentals of \$42,000, and Health/Safety of \$21,000.
Total Direct Expenses	167,075,634	152,592,914	(14,482,720)	-8.7%	

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY22 Budget YTD February	FY22 Actuals February	FY22 YTD Actual vs. FY22 Budget		Explanations
			\$	%	
Indirect Expenses					
Insurance	2,654,346	2,815,891	161,545	6.1%	Higher Payments/Claims of \$156,000 and higher Premiums of \$5,700 than budgeted.
Watershed/PILOT	19,622,592	18,755,059	(867,533)	-4.4%	Lower Watershed Reimbursement of \$0.9 million favorable variance to budget driven by lower spending on (1) Equipment (2) Telecommunications (3) Professional Services, and (4) Fringe Benefits.
HEEC Payment	4,706,122	4,530,112	(176,010)	-3.7%	Decrease is due to HEEC Revenue Requirement (\$297,000), partially offset by and HEEC O&M charge (\$121,000).
Mitigation	1,139,762	1,139,762	-	0.0%	
Addition to Reserves	950,819	950,819	-	0.0%	
Pension Expense	11,205,000	11,205,000	-	0.0%	
Post Employee Benefits	-	-	-		
Total Indirect Expenses	40,278,641	39,396,643	(881,998)	-2.2%	
Debt Service					
Debt Service	305,610,305	305,610,305	-	0.0%	Debt Service matches the budget after the transfer of \$9.7 million to the Defeasance account, driven by lower than budgeted variable interest expense of \$6.9 million due to lower interest rates and lower Senior Debt spending of \$2.7 million as a result of the refunding and new money transactions.
Debt Service Assistance			-		
Total Debt Service Expenses	305,610,305	305,610,305	-	0.0%	
Total Expenses					
Total Expenses	512,964,580	497,599,862	(15,364,718)	-3.0%	

**ATTACHMENT 2
Current Expense Variance Explanations**

Total MWRA	FY22 Budget YTD February	FY22 Actuals February	FY22 YTD Actual vs. FY22 Budget		Explanations
			\$	%	
Revenue & Income					
Rate Revenue	533,133,461	533,133,462	0	0.0%	
Other User Charges	6,369,066	7,237,447	868,381	13.6%	Unplanned water use by the town of Burlington.
Other Revenue	5,184,912	6,991,785	1,806,873	34.8%	Other Revenue was \$1.8 million or 34.8% over budget due to Miscellaneous Revenue of \$886,000 driven by the reimbursement from the Commonwealth of Massachusetts for Biobot costs associated with FY21, Energy Rebates of \$697,000, and Income from the Disposal of Equipment of \$285,000. Other User Charges of \$868,000 primarily due to for unplanned water use by the Town of Burlington.
Rate Stabilization	841,346	841,346	-	0.0%	HEEC Reserve.
Investment Income	2,602,278	2,674,797	72,519	2.8%	Investment Income is over budget is due to higher than budgeted average balances offset by lower than budgeted interest rates (0.50% actual vs. 0.54% budget).
Total Revenue	548,131,063	550,878,837	2,747,773	0.5%	
Net Revenue in Excess of Expenses	35,166,483	53,278,975	18,112,491		

**ATTACHMENT 3
FY22 CIP Year-to-Date Variance Report (\$000's)**

	FY22 Budget YTD February	FY22 Actuals YTD February	YTD Actuals vs. Budget		Explanations
			\$	%	
Wastewater					
Interception & Pumping (I&P)	\$29,984	\$23,994	(\$5,989)	-20.0%	<u>Underspending</u> Prison Point Design CA/RI and Construction: \$5.2M (updated construction schedule) Ward Street & Columbus Park Headworks Upgrades - Design/CA: \$1.5M (completed some design and inspection tasks later than anticipated) Interceptor Renewal No. 3, Dorchester Interceptor Sewer - Construction: \$846k (timing of contractor work. Contract is substantially complete.) <u>Offset Overspending</u> Chelsea Creek Headworks Upgrades - Construction, CA and REI: \$1.7M, and Nut Island Odor Control & HVAC Improvements Phase 2 - Construction: \$384k (work scheduled for FY21 performed in FY22) Wastewater Metering Asset Protection/Equipment Purchase: \$415k (timing of work. Contract is substantially complete.)
Treatment	\$8,509	\$4,339	(\$4,170)	-49.0%	<u>Underspending</u> Winthrop Terminal Facility (WTF) VFD and Motors Replacement - Construction: \$1.8M, Gravity Thickener Rehabilitation: \$616k, and Miscellaneous VFD Replacements FY19-FY23: \$467k (timing of work) As-Needed Technical Assistance: \$352k (lower than projected task order work) Motor Control Center and Switchgear Replacement - Design/ESDC/REI: \$245k and Fire Alarm System Replacement - Design/CA: \$222k and Clinton Screw Pump Replacement: \$240k (updated construction schedules) Clarifier Rehabilitation Phase 2 - Design: \$172k (time extension) <u>Offset Overspending</u> Chemical Tank and Digester Pipe: \$341k (timing of final work) Clinton Wastewater Treatment Plant Valves and Pipe Replacement: \$183k (contractor progress)
Residuals	\$11	\$14	\$3	24.8%	
CSO	\$2,206	\$4,583	\$2,376	107.7%	<u>Overspending</u> Somerville Marginal In-System Storage: \$1.4M (timing of payment) East Boston CSO Control - BOS014: \$727k (work completed earlier than anticipated) Dorchester Inflow Removal Construction: \$572k (timing of payment) <u>Offset Underspending</u> CSO Performance Assessment: \$323 (time extension)

**ATTACHMENT 3
FY22 CIP Year-to-Date Variance Report (\$000's)**

	FY22 Budget YTD February	FY22 Actuals YTD February	YTD Actuals vs. Budget		Explanations
			\$	%	
Other Wastewater	\$19,152	\$13,429	(\$5,723)	-29.9%	<u>Underspending</u> I/I Local Financial Assistance: \$5.7M (timing of community distributions of grants and loans)
Total Wastewater	\$59,863	\$46,359	(\$13,504)	-22.6%	

ATTACHMENT 3
FY22 CIP Year-to-Date Variance Report (\$000's)

	FY22 Budget YTD February	FY22 Actuals YTD February	YTD Actuals vs. Budget		Explanations
			\$	%	
Waterworks					
Drinking Water Quality Improvements	\$1,726	\$2,063	\$336	19.5%	<u>Overspending</u> CWTP As-Needed Technical Assistance: \$298k (greater than projected task order work)
Transmission	\$17,236	\$20,446	\$3,210	18.6%	<u>Overspending</u> WASM 3 Rehabilitation, CP-1: \$2.5M, and WASM/Spot Pond Supply Mains West Pressure Reducing Valves - Construction: \$1.1M (contractors progress) Metropolitan Tunnel Redundancy Administration, Legal & Public Outreach: \$1.9M (timing of land purchase), and Program Support Services: \$311k (timing of consultant work) Wachusett Dam Bridge Crane Removal: \$291k (FY21 planned work completed in FY22) <u>Offset Underspending</u> Watershed Land: \$348k (timing of purchases) River Road Improvements-Wachusett: \$267k, and Chestnut Hill Emergency Pump Station Improvements - Design/CA: \$223k (timing of work) Tunnel Redundancy Preliminary Design & MEPA Review: \$784k and WASM 3 - MEPA/Design/CA/RI: \$331k (timing of consultant work) CP2 Shafts 5, 9: \$277k (updated construction schedule)
Distribution & Pumping	\$11,168	\$2,888	(\$8,280)	-74.1%	<u>Underspending</u> Section 89/29 Replacement - Construction and RE/RI Services: \$5.5M, and New Connecting Mains CP3-Sections 23, 24, 47 Final Design/CA/RI: \$843k (updated schedules) Sections 50 & 57 Water Pipeline Rehabilitation - Design/ESDC; \$864k (contract scope reduction) SEH Redundancy Pipeline Phase 1 - Design/CA/RI: \$365k (Construction Administration and Resident Inspection services less than anticipated budgeted spending) Cathodic Protection Shafts N & W: \$300k (schedule change)
Other Waterworks	\$15,966	\$10,356	(\$5,610)	-35.1%	<u>Underspending</u> Local Water Pipeline Financial Assistance Program: \$5.1M (timing of community loan distributions) Water System Hydraulic Model: \$317k (slower than anticipated start-up)
Total Waterworks	\$46,097	\$35,753	(\$10,344)	-22.4%	

**ATTACHMENT 3
FY22 CIP Year-to-Date Variance Report (\$000's)**

	FY22 Budget YTD February	FY22 Actuals YTD February	YTD Actuals vs. Budget		Explanations
			\$	%	
Business & Operations Support					
Total Business & Operations Support	\$10,194	\$2,681	(\$7,513)	-73.7%	<u>Underspending</u> As-Needed Technical Assistance and CS/REI Services: \$2.0M (lower than projected task order work) FY19-23 Vehicle Purchases: \$840k (due to timing) Cabling: \$889k, Lawson Upgrade: \$585k, MSSP/SIEM: \$360k, Sans Storage: \$339k, Enterprise Data Management: \$231k, and Instrumentation & Controls: \$258k (timing of work) Office Space Modifications: \$400k (updated schedule)
Total MWRA	\$116,153	\$84,793	(\$31,360)	-27.0%	

Attachment 4
FY22 Budget vs. FY22 Projection

TOTAL MWRA	FY22 Budget	FY22 Projection	Change FY22 Budget vs FY22 Projection	
			\$	%
EXPENSES				
WAGES AND SALARIES	\$ 116,680,341	\$ 107,378,367	\$ (9,301,974)	-8.0%
OVERTIME	5,156,681	5,030,378	(126,303)	-2.4%
FRINGE BENEFITS	23,253,137	22,209,351	(1,043,786)	-4.5%
WORKERS' COMPENSATION	2,614,159	1,960,619	(653,540)	-25.0%
CHEMICALS	12,202,286	12,255,355	53,069	0.4%
ENERGY AND UTILITIES	24,749,865	27,684,687	2,934,822	11.9%
MAINTENANCE	32,442,381	30,066,732	(2,375,649)	-7.3%
TRAINING AND MEETINGS	473,994	314,875	(159,119)	-33.6%
PROFESSIONAL SERVICES	8,773,258	7,895,932	(877,326)	-10.0%
OTHER MATERIALS	8,334,774	7,501,297	(833,477)	-10.0%
OTHER SERVICES	25,129,236	24,877,944	(251,292)	-1.0%
TOTAL DIRECT EXPENSES	\$ 259,810,111	\$ 247,175,536	\$ (12,634,575)	-4.9%
INSURANCE	\$ 3,943,600	\$ 4,117,831	174,231	4.4%
WATERSHED/PILOT	26,731,490	25,589,022	(1,142,468)	-4.3%
HEEC PAYMENT	6,991,953	6,640,819	(351,134)	-5.0%
MITIGATION	1,693,360	1,693,360	-	0.0%
ADDITIONS TO RESERVES	1,412,647	1,412,647	-	0.0%
RETIREMENT FUND	11,205,000	11,205,000	-	0.0%
POSTEMPLOYMENT BENEFITS	4,673,624	4,673,624	-	0.0%
TOTAL INDIRECT EXPENSES	\$ 56,651,673	\$ 55,332,302	\$ (1,319,371)	-2.3%
STATE REVOLVING FUND	\$ 95,673,399	\$ 95,673,399	-	0.0%
SENIOR DEBT	244,957,128	238,650,582	(6,306,546)	-2.6%
SUBORDINATE DEBT	125,046,217	117,017,639	(8,028,578)	-6.4%
LOCAL WATER PIPELINE CP	6,120,127	4,750,000	(1,370,127)	-22.4%
CURRENT REVENUE/CAPITAL	17,200,000	17,200,000	-	0.0%
CAPITAL LEASE	3,217,060	3,217,060	-	0.0%
DEBT PREPAYMENT	5,609,355	5,609,355	-	0.0%
DEBT SERVICE ASSISTANCE	(1,287,870)	(1,287,870)	-	0.0%
TOTAL DEBT SERVICE	\$ 496,535,417	\$ 480,830,165	\$ (15,705,251)	-3.2%
TOTAL EXPENSES	\$ 812,997,201	\$ 783,338,004	\$ (29,659,198)	-3.6%
REVENUE & INCOME				
RATE REVENUE	\$ 792,084,000	\$ 792,084,000	-	0.00%
OTHER USER CHARGES	9,222,884	10,693,360	1,470,477	15.9%
OTHER REVENUE	6,479,202	7,557,169	1,077,968	16.6%
RATE STABILIZATION	1,250,000	1,250,000	-	0.0%
INVESTMENT INCOME	3,961,116	4,100,116	139,000	3.5%
TOTAL REVENUE & INCOME	\$ 812,997,202	\$ 815,684,646	\$ 2,687,444	0.3%

VARIANCE:

\$ (32,346,642) \$ (32,346,642)

STAFF SUMMARY


TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: March 16, 2022
SUBJECT: Renewable and Alternative Energy Portfolio Services
Next Grid Markets, LLC
Contract RPS-68, Amendment 3



COMMITTEE: Administration, Finance and Audit

 INFORMATION
 X VOTE

Carolyn M. Fiore, Deputy Chief Operating Officer
Stephen Estes-Smargiassi, Director of Planning & Sustainability
Jonathan Sycamore, Senior Financial Analyst
Preparer/Title



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

RECOMMENDATION:

That the Executive Director, on behalf of the Authority, approve Amendment 3 to Contract RPS-68, Renewable and Alternative Energy Portfolio Services, with Next Grid Markets, LLC, in accordance with the pricing established under Massachusetts State Contract FAC109, extending the contract term by 730 days, from March 31, 2022 to March 30, 2024, and increasing the contract amount by \$35,000, from \$105,000 to \$140,000. Approval of Amendment 3 will be contingent on DCAMM extending the FAC109 Contract.

DISCUSSION:

The Massachusetts Renewable Energy Portfolio Standards and Alternative Energy Portfolio Standards are statutory obligations under the Green Communities Act of 2008. The Act requires Massachusetts retail electricity suppliers to provide a minimum percentage of kilowatt-hour (kWh) sales to end-use customers from eligible renewable resources. Qualified facilities generating renewable energy earn Renewable Energy Certificates (RECs), which may be sold to retail electricity suppliers to satisfy their Renewable Energy Portfolio Standard obligations.

The Massachusetts Division of Energy Resources established the qualification process for renewable generation facilities.¹ The following MWRA facilities are currently approved as qualified renewable generation units:

- Deer Island Steam and Back-Pressure Turbine Generators – Class I

¹ Each Renewable Portfolio Standard Class has different supplier compliance percentages, as well as different qualifying generation units used to meet the compliance percentage. Class I facilities generate electricity using eligible technologies (solar, wind, small hydroelectric, landfill methane, digester gas, marine or hydrokinetic, geothermal, biomass) and began commercial operation after 1997. Class II renewable facilities generate electricity using technologies similar to Class I but have an operation date prior to January 1, 1998. Alternative Energy Portfolio Standard facilities include Combined Heat and Power, flywheel storage, coal gasification, and efficient steam technologies.

- Deer Island Residuals Odor Control Solar – Solar Class I
- Deer Island Maintenance Building Solar – Solar Class I
- Deer Island Wind, Both Turbines – Class I
- Deer Island Hydro – Class I
- Charlestown Wind – Class I
- Loring Road Hydro – Class I
- Carroll Water Treatment Plant - Class I
- Brutsch Hydro – Class I
- Oakdale Hydro – Class II
- Cosgrove Hydro – Class II

Under this contract, Next Grid verifies and sells the Renewable Energy Certificates (RECs) created by the Authority’s renewable energy generating assets on behalf of the Authority. The sale of these RECs is a reliable source of revenue, generating over \$5.7 million in non-rate revenue since 2016.

In April 2018, DCAMM awarded contract FAC109 to Next Grid Markets, LLC, for the marketing, certification and sales of qualified RECs generated by the Commonwealth’s facilities. MWRA executed contract RPS-68 with pricing established under the State Contract to provide a mechanism for MWRA to sell the RECs created by the Authority’s renewable power generators. In accordance with the pricing established under FAC109, Next Grid Markets will be paid a fee of 3% of revenue received from sales of Class I and Class II RECs, and a fee of 1.5% of revenue received from sale of Solar Renewable Energy Certificates (SRECs).

There are several advantages to MWRA utilizing the State Contract for the marketing, certification and sales of RECs. First, NextGrid may aggregate MWRA’s RECs with RECs from other state-controlled agencies and public entities, potentially yielding higher bid prices for larger bid quantities. Additionally, NextGrid is actively engaged in the renewables market pricing, which allows the firm to develop a strategy to optimize REC sales revenue. NextGrid may engage in “forward” marketing (financial contracts for future supply of RECs), which can result in higher prices. As an added benefit, NextGrid will keep staff informed of any changes in the RECs market and/or regulations.

Since FY16 MWRA has collected revenues of nearly \$4.1 million through sale of its Class I and SRECs. MWRA typically sells its Class II RECs independently because the pricing received is consistently close to the Alternative Compliance Payment price, but can (and has) opted to sell these RECs through this contract if staff believed that aggregating Class II RECs were to result in improved pricing. MWRA revenue from Class II REC sales was approximately \$1.6 million for the FY16-FY21 period. The contract includes the sale of MWRA Class I RECs, Class II RECs, and SRECs. Staff project additional REC sales of \$1.2 million over the extended term.

This Amendment:

In 2020, the Commonwealth exercised the first of two renewal options to extend FAC109 for two years, through March 30, 2022. DCAMM is expected to exercise the second renewal option for an additional two years. Approval of Amendment 3 would align MWRA’s contract in phase with DCAMM’s expected March 30, 2024 extension. Approval of Amendment 3 will be contingent on DCAMM extending the FAC109 Contract through March 30, 2024. If the State does not

extend Contract FAC109, MWRA would procure another provider of marketing, certification and sales of MWRA RECs; however, this is not expected as the State has indicated that it intends to extend the contract based on Next Grid’s excellent service under this contract.

Staff recommend the approval of Amendment 3 to Contract RPS-68 to extend the contract term by 730 days for the continued marketing and sale of MWRA Class I RECs and SRECs. This amendment would make no change in the scope. However, the contract would be increased by \$35,000, for a total contract value of \$140,000, to accommodate the longer contract duration and additional REC sales. Staff project additional REC sales of \$1.2 million over the extended term. The current state contract FAC109 is expected to be extended through March 30, 2024, and approval of Amendment 3 will be contingent on such an extension by DCAMM of the existing contract.

CONTRACT SUMMARY

	<u>AMOUNT</u>	<u>TIME</u>	<u>DATED</u>
Contract RPS-68	\$77,600	713 Days	4/18/2018
Amendment 1	\$0	183 Days	6/4/2020
Amendment 2	\$27,400	546 Days	9/16/2020
Proposed Amendment 3	<u>\$35,000</u>	<u>730 Days</u>	Pending
Adjusted Contract Amount:	\$140,000	2,172 Days	

BUDGET/FISCAL IMPACTS:

The estimated total payment to Next Grid for selling MWRA’s projected Class I RECs and SRECs through March 30, 2024 will not exceed the proposed contract value of \$140,000, based on market prices and projected sales totaling \$1.2 million dollars over the 24-month extension period.

MBE/WBE PARTICIPATION:

There were no MBE/WBE participation requirements established for this contract due to limited opportunities for subcontracting.

STAFF SUMMARY


TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: March 16, 2022
SUBJECT: Infiltration/Inflow Local Financial Assistance Program Annual Update



COMMITTEE: Wastewater Policy & Oversight

X INFORMATION
 VOTE

Carolyn M. Fiore, Deputy Chief Operating Officer
Stephen Estes-Smargiassi, Director, Planning and Sustainability
Jon F. Szarek, P.E., Senior Program Manager, Planning
Israel D. Alvarez, Project Manager, Planning
Preparer/Title


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

RECOMMENDATION:

For information only.

DISCUSSION:

MWRA’s Infiltration/Inflow (I/I) Local Financial Assistance Program was initiated in May 1993 to provide funding to member sewer communities to perform I/I reduction and sewer system rehabilitation projects within their locally-owned collection systems. The program’s goal is to assist member communities in improving sewer system conditions to reduce I/I and ensure ongoing repair and replacement and efficient operation and maintenance of local collection systems. Staff’s review of long-term wastewater meter data and frequency and duration of sanitary sewer overflows (SSOs) indicates MWRA’s financial assistance for local I/I reduction and collection system rehabilitation projects, together with CSO Control Program projects and indoor water conservation, have reduced and continue to maintain flows in the regional wastewater collection system.

The I/I Local Financial Assistance Program is a critical component of MWRA’s Regional I/I Reduction Plan.¹ Specifically, local sewer system rehabilitation projects are intended to offset ongoing collection system deterioration to prevent a net increase in regional I/I. In the long-term, ongoing system rehabilitation should result in lower I/I. Regional I/I reductions ensure that the dry day wastewater flow does not exceed the Deer Island NPDES permit limit of 436 mgd. Over the last ten years, the dry day wastewater flow to the Deer Island plant has averaged 278 mgd, well below the NPDES permit limit. (See Table 1).

¹ As required by the National Pollutant Discharge Elimination System (NPDES) permit for the Deer Island Treatment Plant, MWRA’s Regional Infiltration/Inflow Reduction Plan was approved by MassDEP in November 2002. MWRA is required to report annually on the I/I Reduction Plan and present estimates of I/I for each member sewer community.

Table 1 – Deer Island Treatment Plant Total and Dry Day Wastewater Flow

Calendar Year	Total Wastewater Flow	Dry Day Wastewater Flow
2012	292 mgd	268 mgd
2013	318 mgd	263 mgd
2014	326 mgd	284 mgd
2015	295 mgd	256 mgd
2016	284 mgd	256 mgd
2017	318 mgd	280 mgd
2018	362 mgd	308 mgd
2019	335 mgd	295 mgd
2020	299 mgd	267 mgd
2021	347 mgd	305 mgd
10 Year Average	318 mgd	278 mgd

Update on Distribution of I/I Financial Assistance to Communities

Since 1993, a total of \$760.75 million in grant and loan funds has been authorized by the Board and allocated to member sewer communities through the Program’s 13 funding Phases. Community grant/loan allocations are based on their respective share of sewer charges. In June 2018, Program funding Phases 11, 12 and 13 were added at \$100 million per Phase. Financial assistance under Phases 11 and 12 continues at 75% grants and 25% ten-year, interest-free loans (same as Phases 9 and 10). Phase 13 was added as a ten-year, interest-free loan-only phase, which communities can utilize if they exhaust their grant/loan allocations, prior to the creation of a new grant/loan phase. Through December 2021, three communities have used their entire Phase 13 funding allocation and 14 communities have used their entire Phase 12 funding allocation.

All 43 metropolitan sewer customer communities are participating in the financial assistance program. Through December 2021, a total of \$492 million has been distributed to member communities to fund 639 local sewer rehabilitation projects. The remaining \$268.8 million are approved for distribution through FY30. All scheduled community loan repayments have been made, a total of \$187 million to date. Of the 639 total projects, 568 have been completed and 71 are ongoing in planning, design or construction. Attachment 1 provides a summary of funds allocated, distributed, and remaining for each member community. Attachment 2 provides a summary of funding distributions by fiscal quarter since program inception in May 1993. Throughout the COVID-19 pandemic, community participation in the Program has remained strong. Staff have increased communication with member communities to gauge overall interest in Program participation. Staff have also revised and implemented new Program funding application and financial assistance agreement execution parameters to facilitate the filing and reporting process for member communities.

Grant and loan funding is provided to local communities for eligible I/I reduction projects including planning, design, construction, and engineering services during construction. These projects generally take one to three years to complete. Eighty percent of the funds distributed to date have financed local construction projects. Table 2 details funds distributed for planning, design, construction and construction services for both completed and ongoing projects. As recommended by the Advisory Board, sunset provisions for the grant portion of funding were added in April 2014. The sunset provisions have proven successful in motivating communities to continue to invest in local sewer rehabilitation projects.

Table 2 - I/I Financial Assistance for Planning, Design and Construction

<u>PROJECT PHASE</u>	<u>COMPLETED PROJECTS (\$ millions)</u>	<u>ONGOING PROJECTS (\$ millions)</u>	<u>TOTAL (\$ millions)</u>
Planning/Study:	\$ 50.9	\$ 6.0	\$ 56.9 (11%)
Design:	16.1	4.2	20.3 (4%)
Construction:	279.7	111.6	391.3 (80%)
Eng. Services During Const.:	19.6	3.6	23.2 (5%)
TOTAL	\$ 366.3 (74%)	\$ 125.4 (26%)	\$ 491.7 (100%)

Program Results from Local Projects

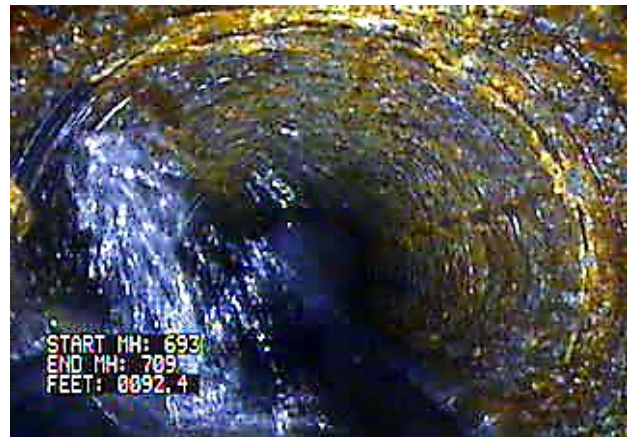
Through December 2021, a total of 639 local I/I reduction and sewer system rehabilitation projects have been funded through the MWRA’s I/I Local Financial Assistance (grant/loan) Program. Cumulative results are summarized below.

Results for planning and sewer inspection projects:

- 2,361 miles of sewer TV inspected
- 1,587 miles of sewer flow isolated
- 1,433 miles of sewer smoke tested
- 65,494 sewer manholes inspected
- 78,232 buildings inspected



Sewer TV Inspection



Infiltration Source Identified by Sewer TV Inspection

Results for projects targeting infiltration reduction:

- 79 miles of sewer replaced;
- 301 miles of cured-in-place-pipe (CIPP) liner installed;
- 189 miles of sewer tested/chemically sealed;
- 3,154 sewer spot repairs;
- 18,118 service connection repairs; and
- 4.8 miles of underdrains sealed.

Results for projects targeting inflow reduction:

- 1,089 catch basins disconnected;
- 47 miles of new or replaced storm drains installed;
- 22,625 manholes rehabilitated/sealed;
- 3,812 manhole covers replaced or inflow seals installed;
- 551 sump pumps redirected; and
- 5,568 downspouts/area drains disconnected.



Private Source Inflow from a Sump Pump



Sewer Manhole at Beach - Raised and Sealed

I/I and Stormwater Impacts on the MWRA Collection System

Infiltration is groundwater that enters the collection system through physical defects such as cracked pipes, manholes and deteriorated joints. Typically, many sewer pipes and sewer service laterals are below the surrounding groundwater table. Therefore, leakage into the sewer (infiltration) is a broad problem that is difficult and expensive to identify and resolve.



Infiltration into a Sanitary Sewer

Inflow is extraneous flow entering the collection system through point sources and may be directly related to stormwater run-off from sources such as roof leaders, yard and area drains, basement sump pumps, ponded manhole covers, cross connections from storm drains or catch basins, and leaking tide gates. Inflow causes a rapid increase in wastewater flow during and continuing after storms and extreme high tides. The volume of inflow entering a collection system typically depends on the magnitude and duration of rainfall, as well as related impacts from snowmelt, flooding, and storm surge.



Inflow into a Manhole during Flooding

Stormwater in combined sewers is, by design, collected in the combined sewer system to be transported to a downstream treatment facility. During rainfall events that cause the combined sewer system to reach capacity, a portion of wastewater flow is diverted to combined sewer overflow (CSO) storage facilities and CSO outfalls.

The volume of I/I and stormwater (in combined sewers) that is discharged by member sewer communities into the MWRA collection system is influenced by seasonal and wet-weather conditions as well as tide height and storm surge. I/I is extraneous water that enters all wastewater collection systems through a variety of sources. Stormwater and I/I take up pipeline capacity in the collection system that would otherwise be available to transport sanitary flow. During extreme storm events, particularly during periods of high groundwater, excessive I/I may cause sewer system surcharging and sanitary sewer overflows (SSOs). I/I entering the collection system also results in the transport of groundwater and surface water out of the natural watershed.

Review of Long-Term Flows in the MWRA Collection System

Attachment 3 provides graphs of long-term wastewater flow data (33 years from 1989-2021) for the total collection system to the Deer Island Treatment Plant as well as flow data for the north and south collection systems. The five-year running average wastewater flow is overlaid on each flow graph to smooth the annual variability in the flow data. Annual rainfall from the Logan Airport gauge is also displayed on Attachment 3. The long-term average daily flow for the total system is 350 mgd and the average annual rainfall is 43.7 inches. Using the five-year running average over the long-term, the total system wastewater average daily flow has declined approximately 64 mgd, a reduction of 16%. The north collection system wastewater flow has declined by approximately 51 mgd, while the south collection system wastewater flow has declined by approximately 13 mgd.

The long-term flow tributary to the Deer Island Treatment Plant is impacted by a variety of factors, some helping to decrease wastewater flow while others increase wastewater flow, as noted below.

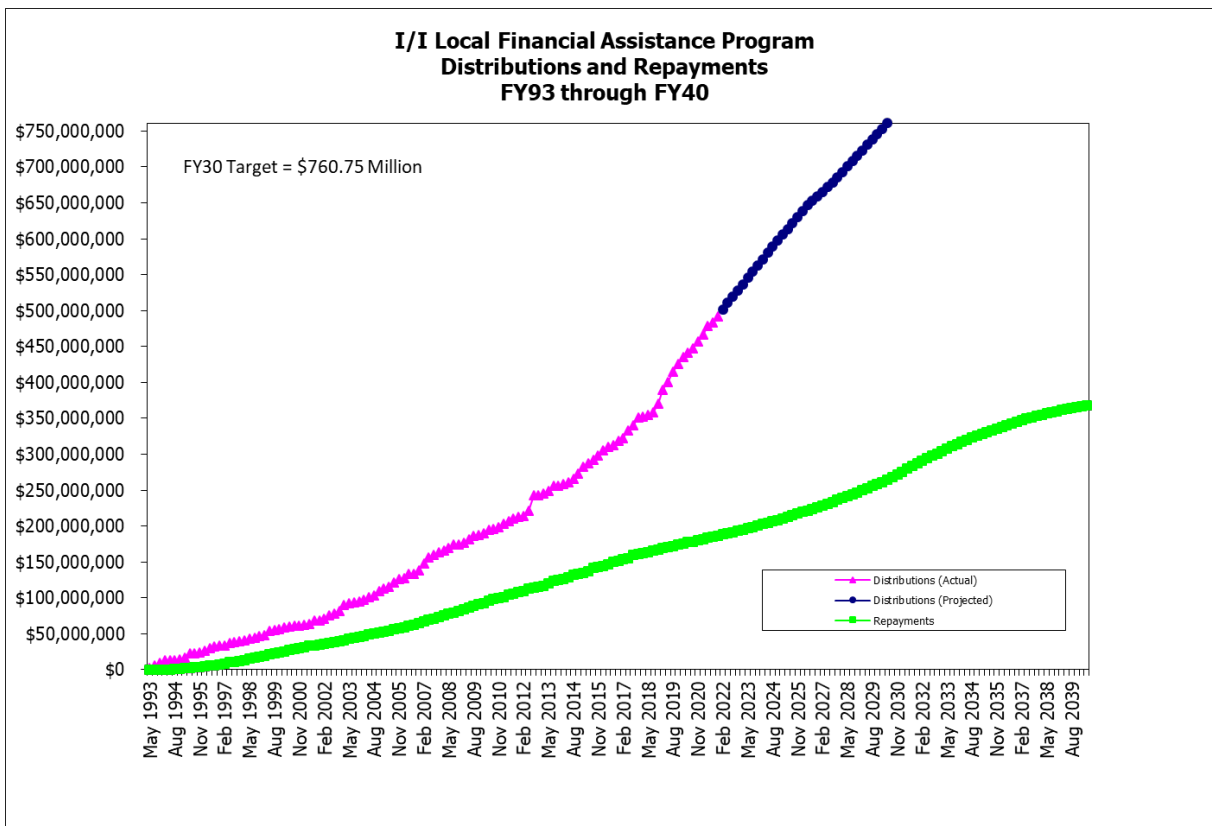
- CSO separation projects reduce stormwater tributary to the combined sewer system leading to decreased flows over time. However, MWRA's pumping and interceptor relief upgrades, as well as CSO optimization projects, are intended to maximize wastewater flow to the treatment plant and minimize CSOs and SSOs leading to increased flows over time.
- MWRA's financial assistance for local I/I reduction and sewer rehabilitation projects stimulate gradual improvements to the regional collection system reducing I/I and stormwater over time. However, the regional collection system continues to age and deteriorate, leading to increased I/I over time.
- Water use in the region has decreased significantly over the long term. The reduction in indoor water use has directly resulted in a decrease in wastewater flow. However, decreases in outdoor water use and water system leakage will have no impact on wastewater flow. Within MWRA's sewer service area over the last 20 years, indoor water use has decreased by approximately 20 gallons per capita per day due to water conservation trends. However, over the same 20-year period, sewer area population has increased by approximately 275,000 (due to increased population and expanded sewer areas). The net decrease in wastewater flow from reduced indoor water use is estimated at 20 mgd over the last 20 years.

Wastewater Flow Reduction Summary

In summary, MWRA's financial assistance for local I/I reduction and collection system rehabilitation projects, in combination with CSO Control Program project benefits and reductions in indoor water use, have reduced and continue to maintain wastewater flow in the regional collection system tributary to the Deer Island Treatment Plant.

BUDGET/FISCAL IMPACT:

The FY22 CIP includes an overall budget of \$393 million for the grant portion of the I/I Local Financial Assistance Program. An additional \$368 million is budgeted for the loan portion of the program. However, the loan portion is offset by an equal amount of loan repayments over time. Depending on the timing and level of community loan requests, loan distributions can fluctuate, sometimes causing overspending or underspending (versus budget) for any particular fiscal year. For the total program, the budget target is \$760.75 million for grant and loan distributions. Through December 2021, \$492 million in grants and loans (\$261 million in grants and \$231 million in loans) have been distributed. The program has a remaining balance of \$269 million in future community grants and loans through FY30. Community loan repayments to date are \$187 million. As community loans are repaid, the funds are deposited into MWRA's construction fund. Community grants and loans are financed through MWRA 30-year bonds. The graph below presents grant and loan distributions and loan repayments (actual and projected) for Program Phases 1-13 (FY93 through FY40).



MBE/WBE PARTICIPATION:

MBE/WBE participation goals are included in the Program's Financial Assistance agreements.

ATTACHMENTS:

Attachment 1 - Community Funding Summary

Attachment 2 - Summary of Funding Distributions by Fiscal Quarter

Attachment 3 - Long-Term Regional Flow Data

ATTACHMENT 1
MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
FUNDING SUMMARY AS OF DECEMBER 2021

Community	Total Allocations (Phases 1 - 13)	Total Distributions (Phases 1 - 13)	Percent Distributed	Funds Remaining
Arlington	\$13,703,000	\$10,671,900	78%	\$3,031,100
Ashland	\$3,818,500	\$2,020,060	53%	\$1,798,440
Bedford	\$5,654,600	\$2,843,600	50%	\$2,811,000
Belmont	\$8,255,100	\$5,135,100	62%	\$3,120,000
Boston	\$218,001,200	\$110,768,951	51%	\$107,232,249
Braintree	\$14,419,000	\$10,031,743	70%	\$4,387,257
Brookline	\$21,355,200	\$10,666,200	50%	\$10,689,000
Burlington	\$8,432,800	\$7,322,800	87%	\$1,110,000
Cambridge	\$39,250,100	\$28,830,100	73%	\$10,420,000
Canton	\$6,635,900	\$2,948,500	44%	\$3,687,400
Chelsea	\$11,760,100	\$11,760,100	100%	\$0
Dedham	\$9,220,000	\$8,060,000	87%	\$1,160,000
Everett	\$13,381,500	\$9,061,300	68%	\$4,320,200
Framingham	\$20,375,000	\$13,671,000	67%	\$6,704,000
Hingham	\$2,802,500	\$2,412,500	86%	\$390,000
Holbrook	\$2,779,600	\$896,562	32%	\$1,883,038
Lexington	\$12,125,300	\$10,565,300	87%	\$1,560,000
Malden	\$20,683,900	\$6,725,900	33%	\$13,958,000
Medford	\$19,637,600	\$7,961,600	41%	\$11,676,000
Melrose	\$10,126,300	\$8,657,300	85%	\$1,469,000
Milton	\$9,014,500	\$9,014,500	100%	\$0
Natick	\$9,332,600	\$6,832,600	73%	\$2,500,000
Needham	\$9,977,600	\$4,018,600	40%	\$5,959,000
Newton	\$34,937,400	\$34,937,400	100%	\$0
Norwood	\$11,589,400	\$6,879,400	59%	\$4,710,000
Quincy	\$32,780,000	\$28,450,000	87%	\$4,330,000
Randolph	\$10,070,800	\$4,971,058	49%	\$5,099,742
Reading	\$7,749,100	\$6,709,100	87%	\$1,040,000
Revere	\$16,940,900	\$5,802,900	34%	\$11,138,000
Somerville	\$25,955,800	\$12,116,900	47%	\$13,838,900
Stoneham	\$7,829,900	\$6,859,900	88%	\$970,000
Stoughton	\$7,902,900	\$6,842,900	87%	\$1,060,000
Wakefield	\$9,806,900	\$8,526,900	87%	\$1,280,000
Walpole	\$6,110,000	\$4,490,000	73%	\$1,620,000
Waltham	\$22,282,400	\$19,214,560	86%	\$3,067,840
Watertown	\$10,155,800	\$7,335,800	72%	\$2,820,000
Wellesley	\$9,249,700	\$4,739,700	51%	\$4,510,000
Westwood	\$4,302,300	\$2,591,300	60%	\$1,711,000
Weymouth	\$19,100,900	\$12,225,900	64%	\$6,875,000
Wilmington	\$4,232,000	\$2,462,000	58%	\$1,770,000
Winchester	\$6,793,000	\$5,923,000	87%	\$870,000
Winthrop	\$5,553,400	\$5,083,400	92%	\$470,000
Woburn	\$16,665,500	\$14,675,500	88%	\$1,990,000
Totals	\$760,750,000	\$491,713,834	65%	\$269,036,166

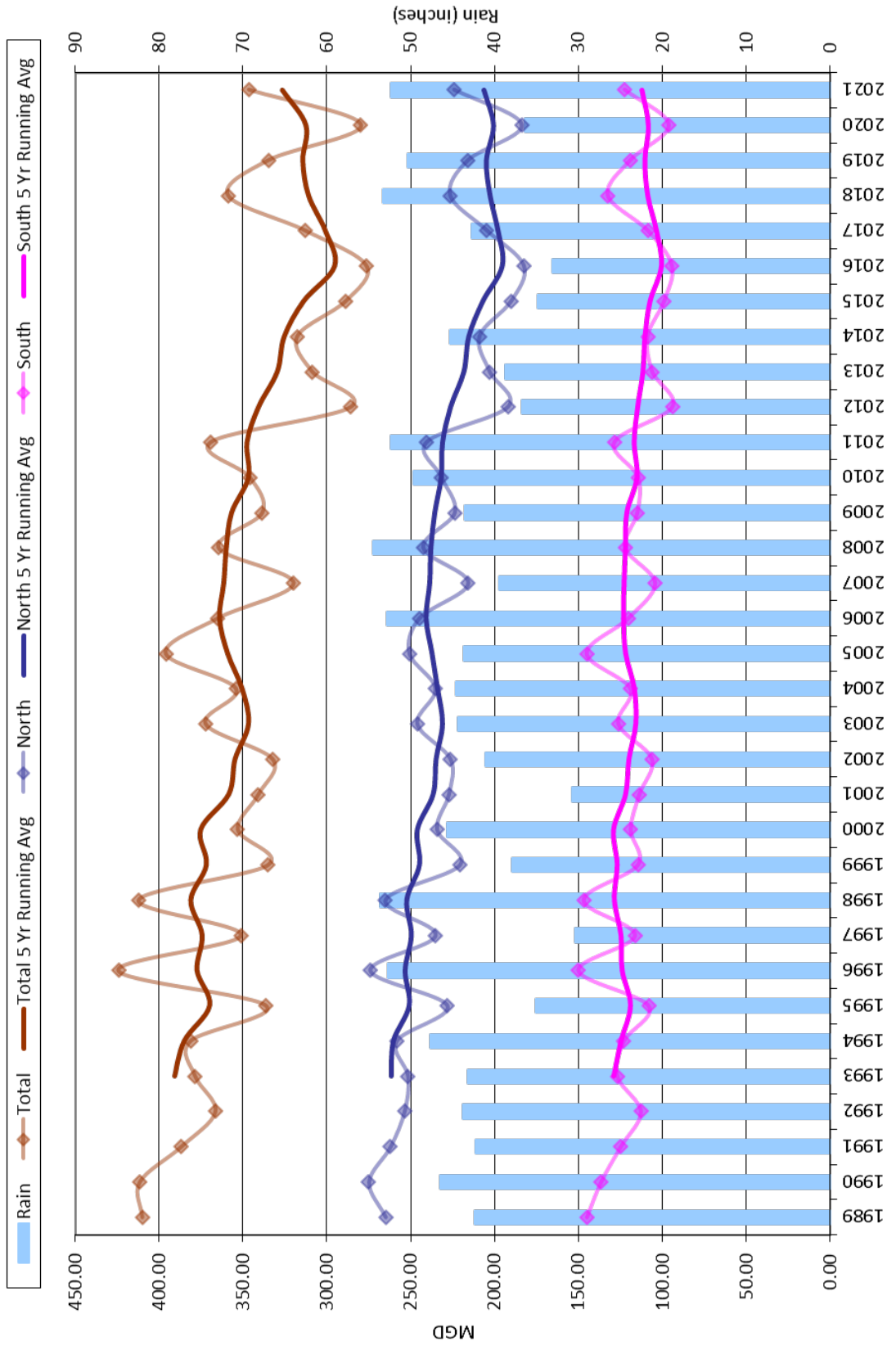
Note: Through December 2021, three communities have used their entire Phase 13 funding allocation and fourteen communities have used their entire Phase 12 funding allocation.

ATTACHMENT 2

MWRA I/I Local Financial Assistance Program - Fiscal Year Breakdown

FY	Distribution Cycle	Distribution Amount	Distribution Cycle	Distribution Amount	Distribution Cycle	Distribution Amount	Distribution Cycle	Distribution Amount	FY Total
FY93	Aug 1992	\$0	Nov 1992	\$0	Feb 1993	\$0	May 1993	\$2,714,883	\$2,714,883
FY94	Aug 1993	\$3,096,468	Nov 1993	\$4,096,133	Feb 1994	\$3,191,032	May 1994	\$251,494	\$10,635,127
FY95	Aug 1994	\$354,126	Nov 1994	\$976,700	Feb 1995	\$1,894,030	May 1995	\$6,489,891	\$9,714,747
FY96	Aug 1995	\$0	Nov 1995	\$504,100	Feb 1996	\$2,921,600	May 1996	\$3,902,426	\$7,328,126
FY97	Aug 1996	\$1,682,061	Nov 1996	\$1,581,266	Feb 1997	\$395,100	May 1997	\$3,530,758	\$7,189,185
FY98	Aug 1997	\$1,066,300	Nov 1997	\$1,157,260	Feb 1998	\$909,350	May 1998	\$2,001,608	\$5,134,518
FY99	Aug 1998	\$1,521,100	Nov 1998	\$2,464,263	Feb 1999	\$1,481,700	May 1999	\$5,758,077	\$11,225,140
FY00	Aug 1999	\$1,315,767	Nov 1999	\$1,847,900	Feb 2000	\$1,679,000	May 2000	\$1,070,100	\$5,912,767
FY01	Aug 2000	\$1,148,400	Nov 2000	\$388,000	Feb 2001	\$1,640,931	May 2001	\$804,800	\$3,982,131
FY02	Aug 2001	\$4,480,735	Nov 2001	\$704,040	Feb 2002	\$1,804,200	May 2002	\$5,002,691	\$11,991,666
FY03	Aug 2002	\$1,962,600	Nov 2002	\$4,461,768	Feb 2003	\$7,955,752	May 2003	\$1,836,600	\$16,216,720
FY04	Aug 2003	\$2,021,940	Nov 2003	\$1,306,200	Feb 2004	\$1,770,760	May 2004	\$3,295,400	\$8,394,300
FY05	Aug 2004	\$2,756,659	Nov 2004	\$6,013,436	Feb 2005	\$4,054,060	May 2005	\$2,636,700	\$15,460,855
FY06	Aug 2005	\$5,377,487	Nov 2005	\$4,589,600	Feb 2006	\$1,519,463	May 2006	\$6,489,676	\$17,976,226
FY07	Aug 2006	\$0	Nov 2006	\$4,947,414	Feb 2007	\$8,789,300	May 2007	\$8,121,023	\$21,857,737
FY08	Aug 2007	\$3,915,500	Nov 2007	\$4,355,750	Feb 2008	\$1,392,400	May 2008	\$4,436,600	\$14,100,250
FY09	Aug 2008	\$4,196,399	Nov 2008	\$352,000	Feb 2009	\$1,990,300	May 2009	\$4,872,400	\$11,411,099
FY10	Aug 2009	\$5,462,736	Nov 2009	\$616,600	Feb 2010	\$2,679,600	May 2010	\$4,845,000	\$13,603,936
FY11	Aug 2010	\$723,700	Nov 2010	\$3,183,250	Feb 2011	\$4,123,100	May 2011	\$4,258,900	\$12,288,950
FY12	Aug 2011	\$3,695,100	Nov 2011	\$2,417,378	Feb 2012	\$848,300	May 2012	\$7,010,324	\$13,971,102
FY13	Aug 2012	\$21,299,965	Nov 2012	\$1,004,610	Feb 2013	\$2,460,000	May 2013	\$2,675,000	\$27,439,575
FY14	Aug 2013	\$7,550,310	Nov 2013	\$0	Feb 2014	\$2,929,700	May 2014	\$2,271,852	\$12,751,862
FY15	Aug 2014	\$4,053,000	Nov 2014	\$7,647,400	Feb 2015	\$10,128,648	May 2015	\$4,803,450	\$26,632,498
FY16	Aug 2015	\$3,983,100	Nov 2015	\$5,783,000	Feb 2016	\$7,195,116	May 2016	\$5,483,000	\$22,444,216
FY17	Aug 2016	\$2,352,100	Nov 2016	\$6,553,210	Feb 2017	\$2,918,900	May 2017	\$10,434,030	\$22,258,240
FY18	Aug 2017	\$8,085,900	Nov 2017	\$10,311,545	Feb 2018	\$1,377,800	May 2018	\$1,909,730	\$21,684,975
FY19	Aug 2018	\$4,107,370	Nov 2018	\$12,150,449	Feb 2019	\$19,027,200	May 2019	\$11,067,748	\$46,352,767
FY20	Aug 2019	\$14,287,100	Nov 2019	\$10,990,840	Feb 2020	\$9,635,048	May 2020	\$5,454,250	\$40,367,238
FY21	Aug 2020	\$6,087,196	Nov 2020	\$9,789,250	Feb 2021	\$9,642,573	May 2021	\$11,878,316	\$37,397,335
FY22	Aug 2021	\$5,582,842	Nov 2021	\$7,692,520	Feb 2022		May 2022		\$13,275,362
Total		\$122,165,961		\$117,885,882		\$116,354,963		\$135,307,027	\$491,713,834
Average		\$4,212,619		\$4,065,030		\$4,155,534		\$4,665,749	\$17,098,933

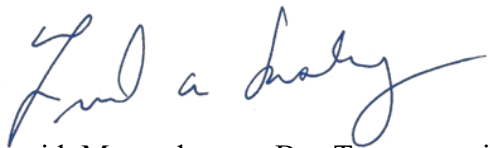
ATTACHMENT 3
 MWRA Long-Term Regional Flow Data
 NOAA Annual Rainfall at Logan Airport



Note: As a result of the ongoing Wastewater Meter Replacement Project, CV21 wastewater flows were generated from Deer Island pumping records (as opposed to the summation of individual community flows).

STAFF SUMMARY


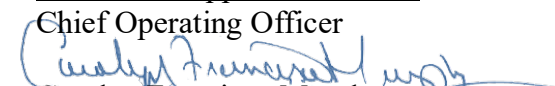
TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: March 16, 2022
SUBJECT: Approval of Memorandum of Agreement with Massachusetts Bay Transportation Authority, ADA Compliant Bus Offload Area at Public Access Parking Lot, Deer Island Treatment Plant



COMMITTEE: Wastewater Policy and Oversight

 INFORMATION
 X VOTE

Richard J. Adams, Manager, Engineering Services
 Stephen D. Cullen, Director, Wastewater
David F. Duest, Director, Deer Island Treatment Plant
 Preparer/Title


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

Carolyn Francisco Murphy
 General Counsel

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to approve a Memorandum of Agreement with the Massachusetts Bay Transportation Authority (MBTA), substantially in the form attached hereto, whereby MBTA will pay for design and construction costs associated with changes to Contract S600, Parking Lot Modifications, to provide Americans with Disabilities Act accessibility at that Deer Island public access parking lot.

DISCUSSION:

MWRA awarded Contract S600 for Parking Lot Modifications to Lorusso Corporation for modifications to the Deer Island public access parking lot to improve functionality, including repaving the lot as part of normal maintenance, and adding 11 spots to support the nearby Department of Fish and Game's (DFG) public fishing pier pursuant to an MOU with DFG (and related agencies). The parking lot includes off-street parking and an offload area for an MBTA bus stop (Route 712/713).



After award of Contract S600, staff notified impacted parties of the planned improvements, including MBTA. MBTA then requested that MWRA modify Contract S600 to provide Americans with Disabilities Act (ADA) accessibility at the public access parking lot, specifically the addition of an ADA-compliant

walkway to be utilized in connection with the existing MBTA bus stop and the reconfiguration of the parking lot to accommodate traffic flow. Buses currently offload to the active parking lot area, not a sidewalk which does not conform to ADA standards. MBTA requested a change in the direction of traffic flow and an expansion of the sidewalk area.

The construction contractor is prepared to start work this month, if authorized, and can complete the work within 30 days.

Provisions of the MOA:

MBTA will be responsible for all design and construction costs associated with the requested changes to provide ADA accessibility, including adding an ADA-compliant walkway for the existing MBTA bus stop and reconfiguring the parking lot to accommodate traffic flow. The original price of Contract S600 is \$169,407. The additional costs for MBTA are currently estimated at \$25,000 for design and \$17,000 for construction.

BUDGET/FISCAL IMPACTS:

There are no budget/fiscal impacts expected as all costs are being funded by MBTA.

ATTACHMENTS:

Proposed MOA with Massachusetts Bay Transportation Authority

MEMORANDUM OF AGREEMENT
BETWEEN
MASSACHUSETTS WATER RESOURCES AUTHORITY
AND
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

This MEMORANDUM OF AGREEMENT (“MOA”) is made by and between the MASSACHUSETTS WATER RESOURCES AUTHORITY (“MWRA”), a body corporate and politic and an independent authority pursuant to St. 1984, c. 372 of the laws of the Commonwealth of Massachusetts, and the MASSACHUSETTS BAY TRANSPORTATION AUTHORITY (“MBTA”), a division of the Massachusetts Department of Transportation (each individually a “Party” and collectively the “Parties”).

RECITALS

WHEREAS, MWRA is currently reconfiguring an existing parking lot to support the recently constructed Deer Island Fishing Pier located immediately outside of the Deer Island Treatment Plant in Winthrop, MA pursuant to a design by its consultant, Hazen & Sawyer (“Project”);

WHEREAS, construction of the Project has been awarded to Lorusso Corp. (the “Contractor”) as MWRA Contract No. S600, “Deer Island Treatment Plant Parking Lot Modifications”;

WHEREAS, the MBTA has requested that MWRA modify the Project by redesigning the proposed parking lot to provide ADA accessibility, including the reconfiguration of the parking lot area to accommodate traffic flow and the addition of an ADA-compliant walkway to be utilized in connection with an existing bus stop maintained by the MBTA at that location (“ADA Upgrades”);

WHEREAS, MWRA supports efforts to increase ADA accessibility and is amenable to adding the ADA Upgrades to the scope of MWRA Contract S600, subject to the terms of this MOA. MWRA and MBTA have determined that it is in the best interest of the Parties to include the ADA Upgrades within the scope of MWRA Contract S600;

WHEREAS, MWRA expects a Notice to Proceed to issue in or around March 2022; and

WHEREAS, MWRA and MBTA wish to enter into this MOA regarding certain aspects of the design and construction, as well as payment for costs associated with, the ADA Upgrades referenced above.

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

1. PROJECT RESPONSIBILITIES AND ALLOCATION OF COSTS

1.1 Pursuant to MWRA’s agreement with its consultant Hazen & Sawyer under Contract No. 7645, Hazen & Sawyer completed the original design of the Project which was included in the contract documents for MWRA Contract No. S600. The MWRA issued Hazen &

Sawyer Task Order No. 19 under Contract No. 7645 for design and consulting services associated with the ADA Upgrades. A copy of Task Order No. 19 was furnished to the MBTA. The estimated costs and expenses for the services outlined in Task Order No. 19 is \$25,060. The MBTA shall reimburse the MWRA for all costs and expenses for the services under Task Order No. 19 in accordance with Section 5.1 of this MOA.

1.2 The MBTA acknowledges and agrees that it has had an opportunity to review and comment on the design documents associated with the ADA Upgrades performed under Task Order No. 19.

1.3 The contract documents for MWRA Contract S600 shall be amended by issuance of a Change Order for the construction of the ADA Upgrades. The Contractor has submitted a proposed price for the ADA Upgrades under Change Request No. 1, and the estimated cost for the ADA Upgrades work is \$17,001.32.

1.4 The MBTA shall reimburse the MWRA for all costs and expenses arising out of the construction of the ADA Upgrades, including without limitation, the items listed by the Contractor under Change Request No. 001. The MBTA shall also be responsible for all Change Order costs under MWRA Contract S600 arising out of the ADA Upgrades in accordance with Section 2 of this MOA. The MBTA shall make all payments to MWRA in accordance with Section 5.2 of this MOA.

2. REQUESTS FOR ADDITIONAL COMPENSATION/CHANGE ORDERS

2.1 MWRA shall determine whether a request for a Change Order under MWRA Contract S600 should be approved or rejected, in whole or in part. In the event a request for a Change Order relates, in whole or in part, to the ADA Upgrades, MWRA will provide the MBTA with a copy of the proposed Change Order for review and comment and, at the MBTA's request, MWRA project personnel shall meet with MBTA personnel to discuss and consider the MBTA's and MWRA's respective positions. The parties shall, in good faith, confer regarding their respective positions. After conferring with the MBTA, MWRA shall process those Change Orders that MWRA approves. Change Orders approved by MWRA shall be included in the Contractor's monthly invoice to MWRA. Should the MBTA request changes in the work related to the ADA Upgrades, such request shall be forwarded by MWRA to the Contractor so that the Contractor, in accordance with Article 13 of the general conditions of Contract S600, may prepare a written statement setting forth the Contractor's estimate of the increased or decreased cost and time impact, if any, of such proposed changes. The MBTA shall make payments to MWRA for its portion of the Change Order costs arising out of or relating to the ADA Upgrades in accordance with Section 5.2 of this MOA. Provided, however, that in the event that proposed Change Order costs, other than Change Request No. 001, exceed MBTA's available funding either party may terminate this MOA upon ten (10) business days written notice to the other party. In the case of such termination the MBTA shall be responsible for all costs and expenses arising out of the ADA Upgrades through the effective date of such termination. Such costs and expenses shall be paid to MWRA in accordance with Sections 5.1 and 5.2.

2.2 In the event the Contractor submits a claim for additional compensation and/or additional time relating to or arising out of, in whole or in part, the ADA Upgrades, which

claim sums and/or time request are not included in an approved Change Order, MWRA shall provide MBTA with a copy of such claim and the Parties shall confer and cooperate with each other and MBTA shall assist MWRA in the defense and/or resolution of such claim.

3. HAZARDOUS MATERIALS

MWRA shall be responsible for, and shall take all actions necessary or appropriate in accordance with MGL Chapter 21E and the Massachusetts Contingency Plan (“MCP”) Utility Related Abatement Measures (“URAM”) necessary to conduct the work under the Project. MBTA shall not be responsible for any costs and expenses associated with the disposal of contaminated soils related to the ADA Upgrades under MWRA Contract S600.

4. TERM

The term of this MOA shall, unless otherwise agreed to by the Parties, commence on the date written above and continue until final completion of the Project and any Warranty period within MWRA Contract S600.

5. PAYMENT BY MBTA

5.1 MWRA’s design consultant shall submit monthly invoices to MWRA for services rendered and reimbursable expenses incurred under Task Order No. 19 associated with the ADA Upgrades. MWRA shall pay the design consultant approved invoiced amounts in accordance with the agreement between MWRA and its design consultant for the Project. MWRA will invoice the MBTA for approved invoice amounts paid by MWRA to its design consultant for the ADA Upgrades on a monthly basis. The MBTA shall make all payments to MWRA within 30 days of receiving said invoices from MWRA.

5.2 The Contractor shall submit monthly invoices to MWRA for the work under MWRA Contract S600, including the Change Order work associated with the ADA Upgrades, in accordance with the contract documents. MWRA shall pay the Contractor for approved monthly invoices in accordance with the contract documents. MBTA shall make payment to MWRA of the amounts requested in the Contractor’s monthly invoice and approved by the MWRA for the original Change Order work associated with the ADA Upgrades. MWRA will invoice the MBTA on a monthly basis. The MBTA shall make all payments to MWRA within 30 days of receiving said invoices from MWRA.

6. AMENDMENTS

The parties to this MOA may amend this MOA only by a writing duly executed by both Parties.

7. SEVERABILITY

If any part of this MOA is determined to be invalid, illegal, or unenforceable, such determination shall not affect the validity, legality, or enforceability of any other part of the Agreement and the remaining parts of this MOA shall be enforced as if such invalid,

illegal or unenforceable part were not contained herein, unless continued performance of the remaining provisions of this MOA, which have not been determined to be invalid, illegal or unenforceable, would result in the substantial loss of the benefit of the bargain to either MWRA or MBTA.

8. NOTICE

Whenever, by the terms of this instrument, notices may or are to be given either to MBTA or MWRA, such notice shall be deemed to have been given, if in writing and either delivered by hand or by U.S. mail to the following addresses:

To MBTA: Wesley Edwards, AGM of Service Development
Massachusetts Bay Transportation Authority
10 Park Plaza, Suite 4160
Boston, MA 02116

To MWRA: John Colbert, Chief Engineer
Massachusetts Water Resources Authority
2 Griffin Way
Chelsea, MA 02150

9. ENTIRE AGREEMENT

This MOA constitutes the entire agreement between the Parties with respect to the subject matter hereof and supersedes all prior agreements, understandings, expectations, negotiations, and discussions of the Parties, whether oral or written. There are no representations by either Party, which are not specifically set forth in this MOA.

10. GOVERNING LAW

This MOA shall be executed and delivered in the Commonwealth of Massachusetts and shall be construed and enforced in accordance with, and shall be governed by, the laws of the Commonwealth of Massachusetts.

11. DISPUTES/COOPERATION

The Parties shall each use their best efforts to cooperate in the performance of the Project and MWRA Contract S600 by appointing appropriate representatives who, respectively, shall be responsible for expediting and responding to any and all inquiries, problems, and matters requiring coordination among the Parties concerning the scheduling, performance, progress or completion of the Project. Any and all disputes which arise and which cannot be amicably resolved by the Parties during the course of the performance of the Project, if at all possible, shall be resolved after the completion of the ADA Upgrades.

12. COUNTERPARTS

This MOA may be executed in duplicate counterparts, each of which shall be deemed an

original and both of which shall constitute one and the same instrument.

13. AUTHORITY

Each person signing in an official or representative capacity warrants that he or she is duly authorized to act for his or her principal and that he or she is so acting when signing this MOA, and that, when executed this MOA shall be a valid and binding obligation, enforceable in accordance with its terms.

14. NO PRESUMPTION

The Parties agree that this MOA shall be construed without regard to any presumption or other rule requiring construction or interpretation against the Party causing this Agreement to be drafted.

IN WITNESS WHEREOF, the Parties hereto have caused the MOA to be executed as a sealed instrument and signed in duplicate by their duly authorized representatives.

EXECUTED AS A SEALED INSTRUMENT this _____ day of _____ 2022.

MASSACHUSETTS WATER RESOURCES
AUTHORITY

MASSACHUSETTS BAY
TRANSPORTATION AUTHORITY

By: _____

Frederick A. Laskey
Executive Director

By: _____

Wesley A. Edwards
AGM of Service Development

STAFF SUMMARY


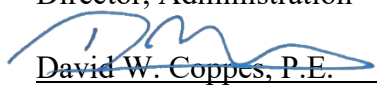
TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: March 16, 2022
SUBJECT: Preferred Service Agreement for the Combustion Turbine Generators
Mitsubishi Power Aero LLC



COMMITTEE: Wastewater Policy & Oversight

 INFORMATION
 X VOTE

David F. Duest, Director, Deer Island Treatment Plant
Richard J. Adams, Manager, Engineering Services
Phillip Szottfried, Senior Program Manager
Preparer/Title


Michele S. Gillen For MG
Director, Administration

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

RECOMMENDATION:

To approve the award of a Preferred Service Agreement to provide technical support, emergency repair services and spare parts for the combustion turbine generators to the original equipment manufacturer, Mitsubishi Power Aero LLC and to authorize the Executive Director, on behalf of the Authority, to execute said contract for an amount not to exceed \$586,000 for a period of three years.

DISCUSSION:

As part of MWRA’s National Pollutant Discharge Elimination System (NPDES) permit, the MWRA is required to provide a 100% back-up power source for the Deer Island Treatment Plant. In addition to two high-pressure steam boilers, which meet thermal demands of the plant and drive two steam turbine generators, the Thermal/Power Plant houses two diesel fuel combustion turbine generators (CTGs). These Pratt & Whitney CTGs are essentially aircraft derivative design jet engines, brought on-line in 1995, capable of generating 26 megawatts of backup power each. The CTGs serve a critical role in keeping the plant operational during storm events, power system interruptions and during peak power demand periods in the summer, and in meeting demand response program requirements.

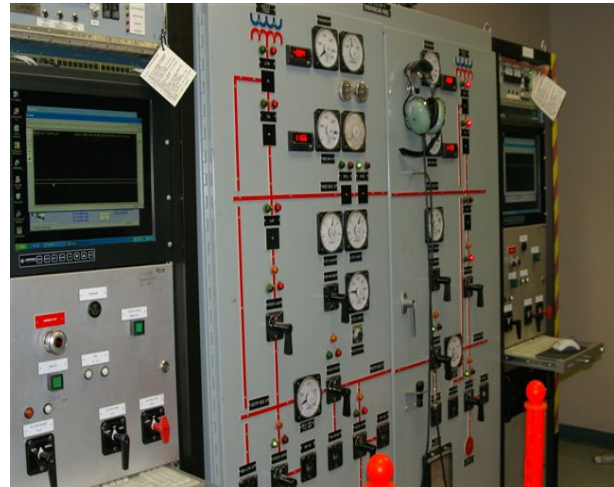
Periodic maintenance is necessary to ensure that the CTGs operate reliably and efficiently. MWRA employs a two-component maintenance strategy for its CTGs. One component is a competitively bid maintenance contract, which, for the most part, addresses many of the routine, mechanical-type tasks (e.g., replacing air filters, lubrication, repairing fuel and water leaks). Currently O’Connor Constructors holds the contract to perform yearly maintenance. The approximate annual cost for this is \$120,000 for preventative tasks on the two CTGs plus an additional \$70,000 for additional planned and emergency services as required.



Typical internal engine parts of the Combustion Turbine Generator



Close-up view of one section of the core of the turbine



One set of control panels

The second component is a Preferred Service Agreement (PSA) with the original equipment manufacturer, Mitsubishi Power Aero LLC, which addresses the more complex and technical maintenance and repair needs of the CTGs. The CTGs are high-speed machines that require high speed monitoring and control equipment for pressure, temperature, flow, vibration and many other parameters to ensure they run efficiently and safely. In order to achieve this the manufacturer must ensure all original factory tolerances and calibrations are maintained. These components can deteriorate through normal operation and must be replaced with the original manufacturer's parts. Ensuring that the CTGs will start and operate without interruption is of paramount importance in maintaining reliable operation of the plant under all circumstances and in meeting NPDES compliance.

Prior to May 2005, all of the maintenance, including the manufacturer's services, was included in a single bid maintenance contract with costs passed through to the original equipment

manufacturer. At that time, the manufacturer made a business decision to contract directly with the end user and, therefore, MWRA entered into its first PSA. The PSA identifies MWRA as a priority customer when diagnostic troubleshooting or on-site field service is required. This ensures that critical response times will be met. The technicians are called on-site during high flow events or when Eversource is performing substation work or inspection on the cross-harbor cable and there is a risk of power interruptions to the plant.

The PSA also provides MWRA with a comprehensive program of customer support that includes calibration of critical sensors and identification of all immediate-need maintenance requirements (many of which would then be performed by MWRA's current CTG maintenance contractor).

Of the recommended \$586,000 for the PSA, MWRA's committed cost for three years is \$336,000. In the first year of the PSA, the committed cost is \$106,300, which will increase approximately 2% in years two and three. Detailed inspections of the major engine components, the electrical and controls systems will be performed in years one and three for each unit. Some examples of the additional work that is included in the full inspection includes calibration of all instrumentation including inlet guide vanes, variable stator vanes, speed and vibration probes, battery charging system checkout, checking tolerances for critical mechanical equipment and securing devices for proper torqueing. The full audit requires approximately 320 additional technician-hours to perform over the standard inspection. Mitsubishi Power Aero will also perform a software audit and provide 80 hours of technical support each year.

In addition to the total not-to-exceed lump sum amount, the PSA includes two allowance categories. One for \$100,000 is for unanticipated on-site field technician support. The other, a \$150,000 allowance, is for spare parts.

This contract is approximately 24% higher than the previous contract that was awarded at the April 17, 2019 Board of Directors meeting. The increase in cost is attributed to the addition of a full detailed inspection on each of the two CTG units, additional training for the Thermal/Power staff and wage rate increases for the three-year contract term.

Staff recommend that MWRA continue to contract directly with Mitsubishi under a PSA. This will ensure that MWRA continues to receive the fastest response in critical situations; the best technical advice, troubleshooting and repair services available; and a reliable supply of the highly specialized and complex replacement components when needed. The Director of Procurement has approved the sole source nature of this procurement.

BUDGET/FISCAL IMPACT:

Sufficient funds for the first portion of this purchase order are included in the FY22 CEB. Appropriate funding will be included in subsequent proposed CEB requests for the remaining term of this agreement.

MBE/WBE PARTICIPATION:

Mitsubishi Power Aero LLC is not a certified Minority-owned or Women-owned business.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: March 16, 2022
SUBJECT: Update on Lead and Copper Rule Regulatory Issues



COMMITTEE: Water Policy & Oversight

INFORMATION
 VOTE

Carolyn Fiore, Deputy Chief Operating Officer
Stephen Estes-Smargiassi, Director, Planning and Sustainability
Preparer/Title



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

RECOMMENDATION:

For information only.

DISCUSSION:

Update on Recent Regulatory Developments

As reported last month, EPA's national office recently finalized changes to the Lead and Copper Rule (LCR) and indicated that it intends to formulate additional changes over the next several years.

In late February, EPA Region 1 informed MassDEP that it wanted to revise the terms of the consecutive system sampling agreement under which MWRA and our communities have been operating since 2011. This agreement was originally developed and approved in the early 1990s when the LCR was first issued and has been revised periodically since then. It governs how the interconnected MWRA and fully supplied communities comply with the terms of the LCR, which like most federal rules is designed for a simple single entity public water system, not an interconnected wholesaler supplier and member communities. EPA's revisions combine increases in the number of samples required, with the acceleration to March of 2022 of certain provisions of the LCR Revisions that would only otherwise be legally required after October 16, 2024; about two and a half years early.

There are ongoing discussions between EPA and MassDEP on the specifics. However, as MWRA and five communities are in the midst of a lead sampling round, staff are working cooperatively with MassDEP to voluntarily comply with what might be required once the final revised consecutive system agreement is developed and approved.

Changes to the agreement that EPA has requested of MassDEP include the following.

Public Notification if a Community is Over the Lead Action Level. The most substantive acceleration of the LCR revisions that EPA has requested MassDEP impose is the requirement for 24-hour public notification to all residents of a community if it is over the lead Action Level. Under

the current LCR, a community has 60 days to conduct an extensive pre-planned public education outreach effort, including mailing a brochure to every customer, notices on bills, and targeted outreach to public and private schools or school boards, Women, Infants and Children (WIC) and Head Start programs, public and private hospitals and medical clinics, pediatricians, family planning clinics, and local welfare agencies. These public education requirements have been successfully implemented by MWRA communities, and result in substantial information provided to the entire community, particularly targeted towards the most vulnerable (e.g. pregnant individuals, families with children, and places they frequent). As previously discussed with the Board, the revised LCR would require that, beginning with sampling after October 2024, communities with lead results over the Action Level would be required to do an immediate (24 hour) notice similar to the one done for a confirmed *E. coli* contaminant incident. EPA seeks to accelerate that requirement beginning with the sampling round under way currently.

EPA and MassDEP staff are having ongoing discussions about this potential change and how it would affect MassDEP's approach to all other public water suppliers. MWRA staff have suggested that an alternative interim addition could be a mailing to every home in the community with a lead service line (and possibly those where the community is unsure of the materials) in addition to all the other existing public education outreach efforts. This would have the benefit of, in addition to reaching the most vulnerable, directly reaching those whose homes are at higher risk due to having a lead service line, and encouraging them to take action to remove it. Also, it would not unduly alarm residents that do not have lead service lines. As of this writing, no resolution has been reached.

Number of Samples. Under the current consecutive system agreement, rather than the 100 samples that all larger systems are required to take each sampling round, MWRA and the member communities fully supplied by the Carroll Water Treatment Plant take a total of 450 samples each round with each community taking one quarter of the number it would take if it were a single entity with its own supply, treatment and distribution system. This approach to the combined MWRA/community system has been in place with EPA concurrence unchanged since the original implementation of the LCR in 1991. EPA has informed MassDEP that it wants MWRA communities to take an additional 33 percent more residential samples.

For the sampling round currently underway for the five communities that were over the lead Action Level in 2021, this increased the number of residential samples from 85 to 113. MWRA staff have worked with the affected communities to facilitate this change.

For the regular sampling round of all fully supplied communities in September, this change would increase the number of required residential sample rounds from 450 to 600. EPA has also informed MassDEP that it must accelerate enforcement of the revised LCR's requirement that communities that have any lead service lines can only sample at residences that have lead service lines. This violates a provision of the existing rule, which requires that water systems maintain consistency of sites over time to allow productive comparison of the effectiveness of corrosion control treatment. Most communities with lead services already have most or all of the sample sites in homes with lead services. How this change might be rolled out over the next several months prior to sampling in September is under discussion between EPA, MassDEP and MWRA staff.

Sample Results Notification. EPA is also requiring that MassDEP accelerate enforcement of the LCR revisions that require notification of any customer with lead sample results over the Action Level within three days. As MWRA already provides immediate notification to communities on

any elevated result and encourages prompt notice to the sampler, staff believe that communities already meet or can easily meet this change now. The only change would be that communities would need to develop and maintain the records necessary to certify to MassDEP that they met the requirement, and would potentially be subject to a violation notice if they failed to do so.

Find and Fix Requirement: EPA is requiring that MassDEP accelerate enforcement of the new requirement of the revised LCR that additional sampling occur at any site with lead levels over the Action Level. These include a sample within the nearby distribution system for pH and alkalinity (the so-called Optimum Water Quality Parameters for corrosion control treatment) and additional sampling at the individual home. Based on the results, MWRA or the community might need to take some sort of additional action to change the local water quality, although EPA has yet to issue any guidance about how that might be determined or regulated. MWRA has voluntarily conducted sampling for the first requirement after the two most recent sampling rounds, and will do so for the sampling round under way now. The results did not indicate any difference between those locations and the system as a whole.

The new requirement for additional sampling and actions at a home would fall to the communities. MWRA will work with the five communities sampling now to assist them in this task, and will develop training for the rest of the communities if the requirement is imposed for the September round of sampling.

Lead Service Line Replacement Requirements: EPA is requiring that MassDEP only credit full lead service line replacements toward any required regulatory targets for replacement. Full lead service line replacement is always preferable to any partial replacement, and MWRA's Lead Line Program only funds full replacements. Full replacement is already MassDEP's goal and it has been imposing it on some communities through Administrative Consent Orders.

Quarterly Updates on MWRA's Review of Corrosion Control Treatment: EPA has requested that MWRA provide quarterly updates on the progress of MWRA's evaluation of corrosion control treatment. In late 2020, staff constructed a series of lead pipe rigs at the John J. Carroll Water Treatment Plant using lead service lines harvested from community distribution systems. Finished water is currently flowing through the pipes to simulate household water use and re-acclimate them after the disturbance of being excavated. MWRA has included both MassDEP and EPA staff in expert panel review meetings that were held during 2021, will continue to do so, and will provide both MassDEP and EPA regular updates as the project continues. The lead pipe rigs are continuing to acclimate in preparation of beginning experiments with alternatives to the existing corrosion control treatment. Though no decisions have been made, staff are exploring ways to accelerate implementation of any changes if the experiments show promise.

MWRA staff continue to discuss with MassDEP and EPA staff to negotiate a revised consecutive system sampling agreement and will work with MWRA community staff to implement that agreement once it is finalized. In the meantime, staff have agreed to voluntarily implement the near term sampling requirements for the sampling that is now underway in five communities.

Updates of Other Aspects Related to Lead in Drinking Water

Lead Service Line Replacement Loan Program

As discussed in another staff summary at this Board meeting, in 2016, MWRA implemented a \$100 million interest-free loan program to communities solely for efforts to fully replace lead service lines. Including the most recent loan disbursement of \$750,000 to Winthrop in February, MWRA has distributed \$30 million in loans, in 31 separate distributions, to the following 13 communities:

BWSC:	\$2.6 million
Chelsea:	\$1.0 million
Everett:	\$4.0 million
Marlborough:	\$5.0 million
Needham:	\$1.0 million
Newton:	\$4.0 million
Quincy:	\$1.5 million
Winchester:	\$2.2 million
Revere:	\$1.5 million
Somerville:	\$2.5 million
Watertown:	\$600,000
Weston:	\$160,000
Winthrop:	\$2.96 million

Based on community reports, there have been 2,248 full lead service line replacements and 696 lead gooseneck replacements funded by the Lead Line Program since 2016. This is in addition to the 3,275 lead services that have been replaced incidental to pipeline rehabilitation or replacement under the Local Water Supply Assistance Program since 1998.

Based on inventory data provided by communities, MWRA's current estimate is that there are about 12,000 lead service lines and over 20,000 lead goosenecks remaining in community systems. With the revised LCR requirement that communities do a more rigorous inventory by October 2024, staff expect that that number will change, and likely increase. The revised rule adds an additional category of service lines requiring replacement over time of those galvanized lines that are downstream or have ever been downstream of a lead line. In addition, as communities do the inventories, they will be required to identify those locations with service lines where they cannot currently determine with confidence the material as non-lead. These "unknowns" will require additional effort over time to correctly ascertain their material on both the public and private sides. The effort is likely to be costly, and will also likely add additional service lines to the list of those that require replacement. Staff anticipate substantial increased demand for loans under the Lead Line Program in response to the LCR revisions over the next several years.

Water Sampling Assistance to Massachusetts Department of Public Health

In 2017, MWRA staff worked with the Massachusetts Department of Public Health (MDPH) staff to create a program whereby MDPH would offer a water sampling kit to any family in MWRA's

service area that had a child with elevated blood lead levels¹. MWRA provided training to MDPH staff on lead in water issues and how to identify a lead service line if they were able to access it, and created a protocol for families to sample their water. MWRA provides a sampling kit with two bottles, a mailing box and a pre-paid shipping label. MDPH staff provide information about lead in water to each family and offer the kits. If a family chooses to participate, they conduct the sampling following the instructions, capturing stagnant water from a tap typically used for drinking or food preparation. They send the box with samples to MWRA’s laboratory along with a “blinded” chain of custody with only a unique case ID number. MWRA reports the sample results to MDPH staff who can then use the information to assist the family in any risk reduction action that might be required. Under federal patient privacy rules, MWRA does not receive any information about the location, such as whether it is a single or multi-family building, the age of the property, or if there is a lead service line. As there is no MWRA or local water department staff involvement with the sampling, compliance with the sampling protocols cannot be determined.

As part of MWRA’s drinking water transparency efforts, all of this data (along with all the other lead data that MWRA collects) is posted on the MWRA website (with only dates and case codes, no other information). Table 1 is a summary of the data analyzed to date. First draw samples are the typical one-liter residential sample of stagnant water; second draw samples are collected after the water has run for an additional 30 seconds. The results are lower than we typically see in our community compliance data. MDPH reports that they find the results helpful in their site evaluations.

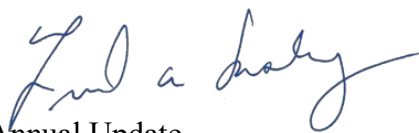
Discussions of LCR compliance data among water suppliers and drinking water regulatory staff focus on the Action Level of 15 ppb, which was designed to trigger actions related to corrosion control and service line replacement. Public health officials in the Lead Poisoning Prevention Programs focus on reducing all lead exposures to as low a level as possible and will tend to look toward benchmarks such as the American Academy of Pediatricians goal of 1 ppb in drinking water or the Health Canada maximum permissible level of 5 ppb.

Table 1 - MDPH Lead Samples 2017-2021				
Results (ppb)	1st Draws	2nd Draws	Total	Percentage
Less than 1	200	241	441	73%
Between 1-2	44	36	80	13%
Between 2-5	35	15	50	8%
Between 5-15	15	13	28	5%
>15	2	5	7	1%
Total Samples	296	310	606	100%

¹ The number of children with elevated levels has dropped substantially over time. Recognizing that no level of lead in a child’s blood is considered safe, in October of 2021, the CDC lowered the level at which it considers a child to have an elevated blood lead level from 5 ug/dL to 3.5 ug/dL.

STAFF SUMMARY


TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: March 16, 2022
SUBJECT: Local Water System Assistance Program Annual Update



COMMITTEE: Wastewater Policy & Oversight

X INFORMATION
 VOTE

Carolyn M. Fiore, Deputy Chief Operating Officer
Stephen Estes-Smargiassi, Director, Planning and Sustainability
Jon F. Szarek, P.E., Senior Program Manager, Planning
Israel D. Alvarez, Project Manager, Planning
Preparer/Title



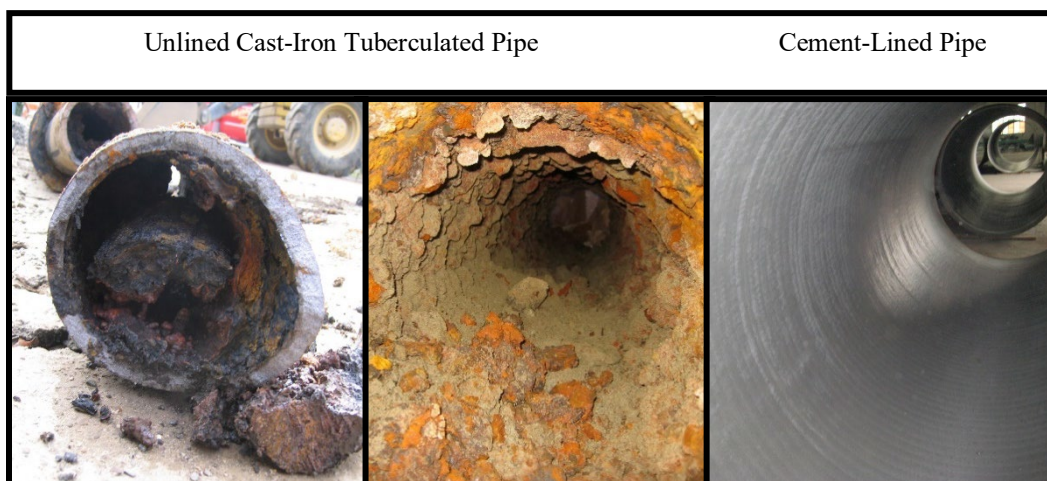
David W. Coppes, P.E.
Chief Operating Officer

RECOMMENDATION:

For information only.

DISCUSSION:

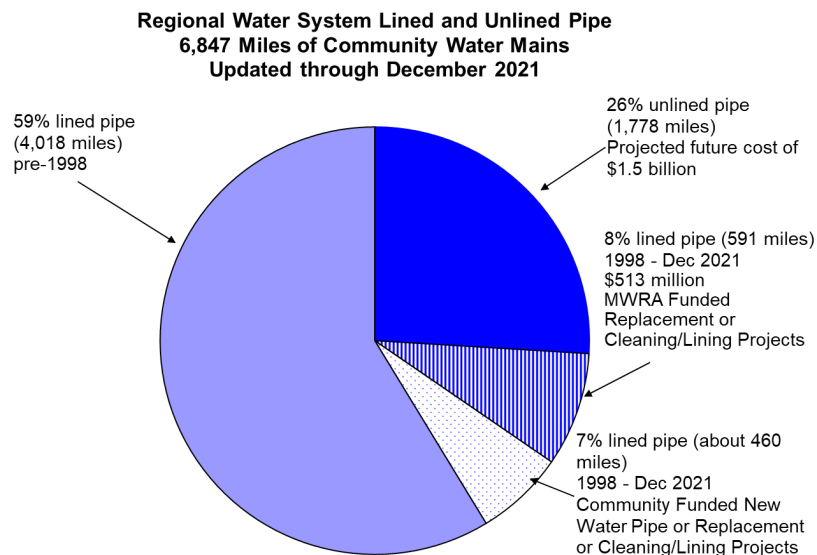
MWRA's goal in providing financial assistance to member communities is to improve local water systems to help maintain high water quality as it passes from MWRA's facilities through local pipelines to customers' taps. Older water mains, particularly those constructed of unlined cast-iron pipe, need to be replaced or cleaned and lined to prevent tuberculation (rust build-up), loss of



disinfectant residual, and potential bacteria growth. Replacement of lead service lines improves water quality by reducing the risk that lead can leach into the water consumed in customers' homes.

Prior to 1998, 4,018 miles (59%) of the 6,847-mile regional distribution system consisted of lined water pipe. Since 1998, MWRA's community financial assistance programs (including the \$30 million pilot program in 1998/99) have invested \$513 million in local water distribution systems and resulted in the replacement or cleaning and lining of 591 miles of water mains. Additional

community-only funded rehabilitation or new pipeline projects have added 460 miles of lined water mains. Approximately 1,778 miles (26%) of locally-owned distribution systems remain unlined, representing a regional need of about \$1.5 billion for future water main rehabilitation. Attachment 1 provides individual statistics for the total miles of lined and unlined water main in each member communities' water system.



Update on Distribution of Water Loan Funds

Under the Local Water System Assistance Program, the Board has authorized a total of \$725 million for community water loans from FY01 through FY30. Loan funds are allocated to member water communities based on a combination of their percent share of unlined pipe and wholesale water charge. MWRA's partially supplied communities receive pro-rated shares based on their percentage use of MWRA water. In December 2020, Ashland and Burlington received LWSAP loan allocations when they were approved as partially supplied member communities. Through December 2021, \$483 million ¹ in ten-year interest-free loans have been distributed to member communities to finance 493 projects that will help maintain high water quality in local distribution systems. Of the 493 total projects, 427 have been completed and 66 are in construction. Community loans are repaid to MWRA over a ten-year period. All scheduled community loan repayments have been made, a total of \$334 million to date. Forty-three of the 47 eligible member water communities ² have participated in the Program. Three additional water loans, totaling \$8.46 million, are scheduled for the February/March 2022 distribution cycle.

The photos on the next page are typical examples of local water system rehabilitation construction work funded through the MWRA Local Water System Assistance Program.

¹ Does not include MWRA's \$30 million pilot distribution rehabilitation program (FY98-99).

² MWRA has a total of 52 water communities (with Dedham/Westwood Water District counted as one). Under MWRA's Local Water System Assistance Program, 47 communities are allocated loan funds. The five ineligible water communities have special case considerations: Cambridge receives water on an emergency-only basis; Lynn receives water only for the GE Plant; and Clinton, Leominster, and Worcester (also on an emergency-only basis) receive untreated water from the Wachusett Reservoir. The three Chicopee Valley Aqueduct (CVA) communities (Chicopee, South Hadley FD#1, and Wilbraham) are allocated funds under Phases 2 and 3 of the Loan Program.



Water Main Replacement
Construction



Old Unlined Cast Iron Water
Main Pipe



Rehabilitated Water
Storage Tank

The Phase 1 - Local Pipeline Assistance Program began in FY01 and was completed at the end of FY13. It provided \$222.3 million in ten-year interest-free loans to water system communities for water main replacement, cleaning and lining projects, and lead service line replacements.

The Phase 2 - Local Water System Assistance Program commenced in FY11. Distributions are approved through FY23. The Phase 2 expansion of the water loan program added \$210 million in interest-free loans for member water communities (including a \$10 million allocation for the three Chicopee Valley Aqueduct (CVA) communities – Chicopee, South Hadley FD#1, and Wilbraham). Through December 2021, \$186.9 million in Phase 2 funds have been distributed and \$23.1 million remain to be distributed. Thirty-two communities have received their entire Phase 2 funding allocation. (See Attachment 2 - Allocation and Fund Utilization by Community.)

The Phase 3 - Local Water System Assistance Program commenced in FY18. Distributions are approved through FY30. The Phase 3 expansion of the water loan program added \$293.3 million in interest-free loans for member water communities (including a \$14 million allocation for the three CVA communities). Through December 2021, \$74.1 million in Phase 3 funds have been distributed and \$219.2 million remain to be distributed. (See Attachment 2 - Allocation and Fund Utilization by Community.)

Thirty-two communities have used all of their allocated Phase 2 funds and seven communities have used all of their allocated to date Phase 3 funds.

The majority of financial assistance loans (96%) under Phases 2 and 3 have continued to fund replacement/rehabilitation of unlined water mains, lead service line replacements, water tank rehabilitation, and other water quality projects. In addition, some communities have undertaken system efficiency (Tier 2) projects such as water meter replacements, automated meter reading systems, and booster pump station rehabilitation.

Lead Service Line Replacement Loan Program

In March 2016, the Board approved an enhancement to the Local Water System Assistance Program to provide up to an additional \$100 million in 10-year interest-free loans to communities solely for efforts to fully replace lead service lines. Under MWRA's Lead Service Line Replacement Loan Program, each community can develop its own program tailored to its local circumstances. Some communities are implementing a phased approach with multiple loans financing lead service replacements over a number of construction seasons. To date, MWRA has distributed \$30 million in Lead Loans (31 separate distributions) to thirteen communities:



- Quincy: \$1.5 million in FY17
- Winchester: \$500,000 in FY17, \$500,000 in FY18, \$600,000 in FY20 and \$600,000 in FY21 (\$2.2 million total)
- Newton: \$4.0 million in FY17;
- Marlborough: \$1.0 million in FY18, \$1.0 million in FY19, \$1.0 million in FY20 and \$2.0 million in FY21 (\$5.0 million total)
- Revere: \$195,000 in FY18 and \$1.3 million in FY22 (\$1.5 million total)
- Winthrop: \$284,000 in FY18, \$487,850 in FY19, \$690,000 in FY20, \$750,000 in FY21, \$750,000 in FY22 (\$2.96 million total)
- Needham: \$1.0 million in FY18
- Everett: \$1.0 million in FY19, \$1.0 million, \$500,000 in FY20 and \$1.5 million in FY21 (\$4.0 million total)
- Chelsea: \$100,000 in FY19, \$300,000 in FY20, \$300,000 in FY21 and \$300,000 in FY22 (\$1.0 million total)
- Somerville: \$900,000 in FY20 and \$1.6 million in FY22 (\$2.5 million total);
- Weston: \$160,000 in FY20
- Watertown: \$600,000 in FY21
- BWSC: \$2.6 million in FY21.

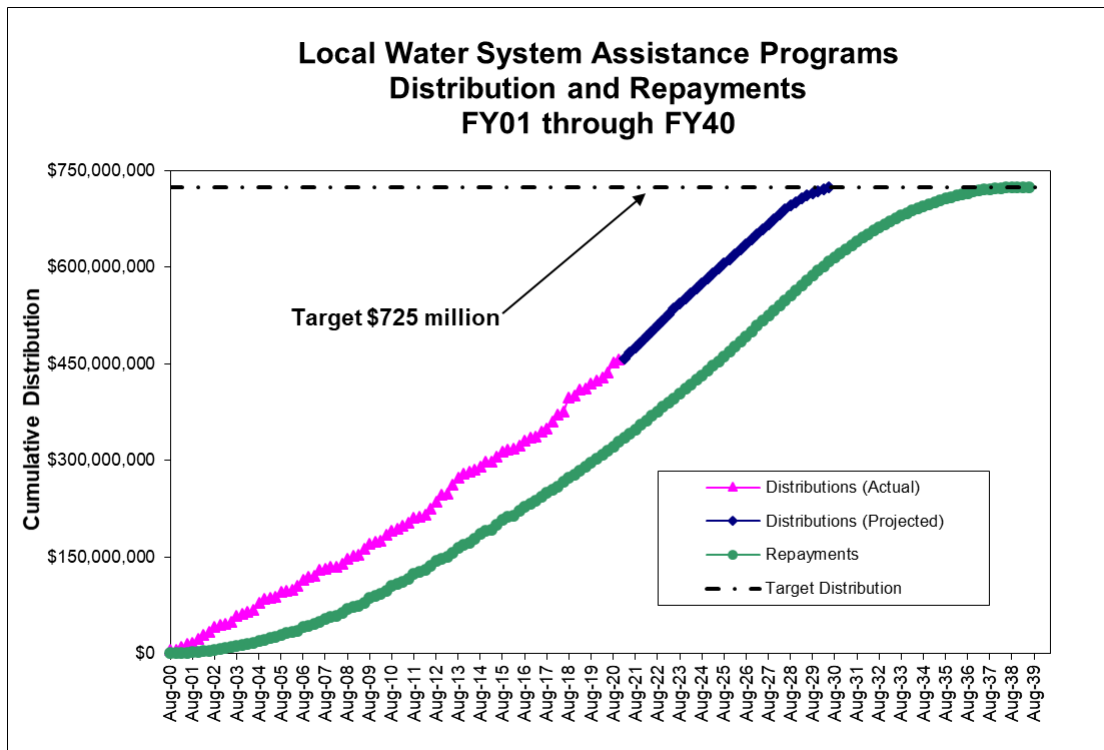
Throughout the COVID-19 pandemic, community participation in the funding programs has remained strong. Staff have increased communication with member communities to gauge overall interest in program participation, and included discussions of the program in all training sessions on the Lead and Copper Rule revisions. Staff have also revised and implemented new program funding application and financial assistance agreement execution parameters to facilitate the filing and reporting process for member communities.

BUDGET/FISCAL IMPACT:

The FY22 CIP includes an overall net budget of zero dollars for both the Local Water System Assistance Program and the Lead Service Line Replacement Loan Program because community loans are offset by repayments over time. However, depending on the timing and level of community loan requests, annual loan distributions can fluctuate, sometimes causing overspending or underspending (versus budget projections) for any particular quarter or year. The Local Water System Assistance Program Guidelines restrict each community's annual allocation to the larger of: (1) 10% of their total allocation, or (2) \$500,000. If not utilized in a given year, annual allocations roll over and accumulate up to the community's total allocation. The annual allocation

restrictions are intended to limit MWRA’s annual financial exposure for community loan distributions.

The program budget target is \$725 million for water system rehabilitation loan distributions and repayments (not including the \$100 million for additional lead service line replacement loans). Through December 2021, \$483 million³ in water project loans have been distributed. Community loan repayments total \$329 million. An additional \$28.2 million in lead service line project loans have been distributed. Lead project loan repayments total \$4.9 million. As community loans are repaid, the funds are deposited into MWRA’s construction fund. The FY22 CEB budget includes \$6.1 million for the cost of loan interest as a separate line item under Debt Service. The graph below presents loan funding distributions (actual and projected) and corresponding repayments for the Local Water System Assistance Program (FY01 through FY40).



MBE/WBE PARTICIPATION:

MBE/WBE goals for community projects are established in the Program Guidelines.

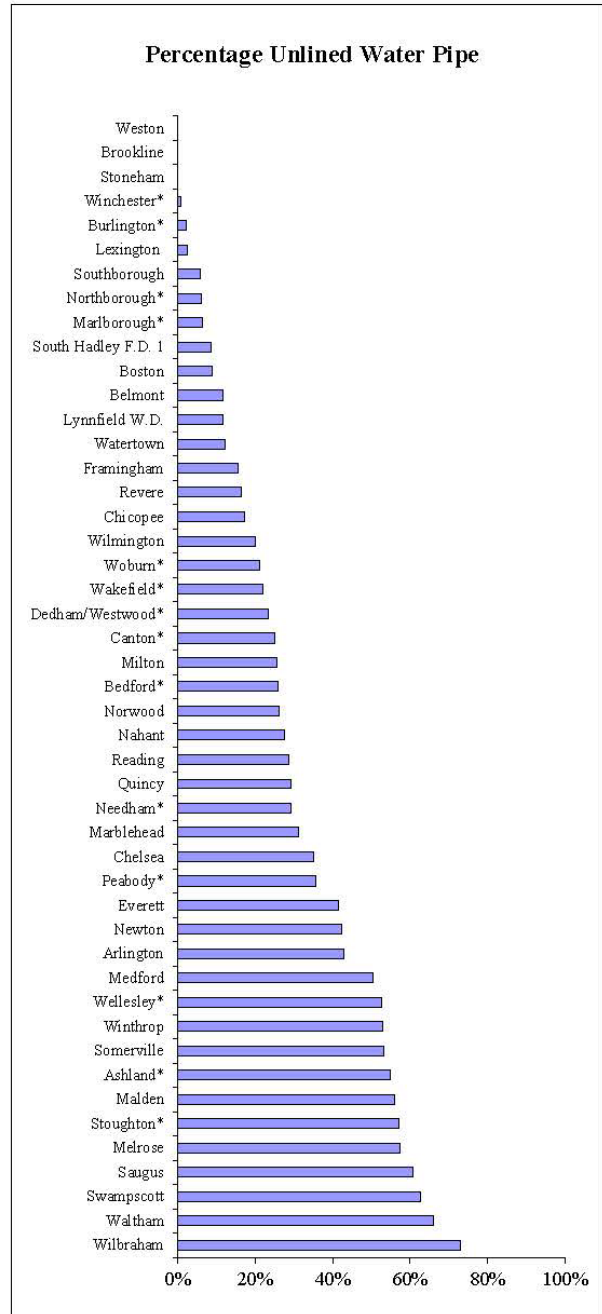
ATTACHMENTS:

- Attachment 1 - Lined and Unlined Pipe by Community
- Attachment 2 - Phase 2 and 3 - Local Water System Assistance Program Allocation and Fund Utilization by Community

³ Does not include MWRA’s \$30 million pilot distribution rehabilitation program (FY98-99).

**MWRA LOCAL WATER SYSTEM ASSISTANCE PROGRAM
LINED AND UNLINED PIPE BY COMMUNITY
THROUGH DECEMBER 2021**

Community	Total Miles of Pipe	Miles of Lined Pipe	Miles of Unlined Pipe	Percent Unlined
Arlington	132	75	57	43%
Ashland*	80	36	44	55%
Bedford*	85	63	22	26%
Belmont	92	82	11	12%
Boston	1011	921	90	9%
Brookline	140	140	0	0%
Burlington*	135	132	3	2%
Canton*	128	96	32	25%
Chelsea	58	38	21	35%
Chicopee	269	223	46	17%
Dedham/Westwood*	203	156	47	23%
Everett	68	40	28	41%
Frammingham	276	233	43	16%
Lexington	165	161	4	2%
Lynnfield W.D.	29	26	3	12%
Malden	121	53	68	56%
Marblehead	97	67	30	31%
Marlborough*	180	169	11	6%
Medford	144	72	72	50%
Melrose	82	35	47	57%
Milton	138	103	35	26%
Nahant	23	17	6	28%
Needham*	135	95	40	29%
Newton	319	184	135	42%
Northborough*	65	61	4	6%
Norwood	119	88	31	26%
Peabody*	208	134	74	36%
Quincy	240	170	70	29%
Reading	114	81	33	29%
Revere	107	90	18	16%
Saugus	125	49	76	61%
Somerville	125	59	66	53%
South Hadley F.D. 1	83	76	7	9%
Southborough	87	82	5	6%
Stoneham	80	80	0	0%
Stoughton*	151	65	86	57%
Swampscott	58	22	36	63%
Wakefield*	114	89	25	22%
Waltham	170	53	117	69%
Watertown	82	72	10	12%
Wellesley*	150	71	79	53%
Weston	111	111	0	0%
Wilbraham	74	20	54	73%
Wilmington	126	101	25	20%
Winchester*	112	111	1	1%
Winthrop	45	21	24	53%
Woburn*	190	150	40	21%
TOTAL	6,847	5,069	1,778	26%



* Partially Served Communities

**MWRA LOCAL WATER SYSTEM ASSISTANCE PROGRAM
ALLOCATION AND FUND UTILIZATION BY COMMUNITY
THROUGH DECEMBER 2021**

Community	Community Total Phase 2 Allocation	Phase 2 Funds Distributed thru Dec 2021	Total Remaining Phase 2 Funds	Community Total Phase 3 Allocation	Community Phase 3 Annual Allocation	Phase 3 Allocation To Date (Year 5)	Phase 3 Funds Distributed thru Dec 2021	Phase 3 Funds Currently Available	Total Phase 2 and 3 Funds Available
Arlington	\$6,225,000	\$6,225,000	\$0	\$8,687,000	\$668,700	\$4,343,500	\$675,000	\$3,668,500	\$3,668,500
Ashland [¶]	\$0	\$0	\$0	\$519,400	\$500,000	\$519,400	\$0	\$519,400	\$519,400
Bedford *	\$2,418,000	\$2,418,000	\$0	\$3,649,000	\$500,000	\$2,500,000	\$0	\$2,500,000	\$2,500,000
Belmont	\$3,477,000	\$3,477,000	\$0	\$3,852,000	\$500,000	\$2,500,000	\$2,500,000	\$0	\$0
Boston	\$38,754,000	\$38,754,000	\$0	\$52,787,000	\$5,278,700	\$26,393,500	\$20,880,364	\$5,513,136	\$5,513,136
Brookline	\$3,426,000	\$660,000	\$2,766,000	\$4,585,000	\$500,000	\$2,500,000	\$0	\$2,500,000	\$5,266,000
Burlington [¶]	\$0	\$0	\$0	\$827,400	\$500,000	\$500,000	\$0	\$500,000	\$500,000
Canton *	\$3,216,000	\$3,216,000	\$0	\$2,971,000	\$500,000	\$2,500,000	\$2,500,000	\$0	\$0
Chelsea	\$3,814,000	\$3,814,000	\$0	\$5,039,000	\$503,900	\$2,519,500	\$2,511,700	\$7,800	\$7,800
Dedham/Westwood *	\$503,000	\$503,000	\$0	\$849,000	\$500,000	\$849,000	\$849,000	\$0	\$0
Everett	\$4,672,000	\$4,672,000	\$0	\$6,298,000	\$629,800	\$3,149,000	\$2,519,200	\$629,800	\$629,800
Framingham	\$7,357,000	\$7,357,000	\$0	\$9,003,000	\$900,300	\$4,501,500	\$2,700,900	\$1,800,600	\$1,800,600
Lexington	\$3,024,000	\$1,145,015	\$1,878,985	\$3,777,000	\$500,000	\$2,500,000	\$0	\$2,500,000	\$4,378,985
Lynnfield Water Dist.	\$1,396,000	\$1,146,800	\$249,200	\$1,678,000	\$500,000	\$1,678,000	\$0	\$1,678,000	\$1,927,200
Malden	\$7,272,000	\$6,734,800	\$537,200	\$10,605,000	\$1,060,500	\$5,302,500	\$0	\$5,302,500	\$5,839,700
Marblehead	\$4,237,000	\$4,237,000	\$0	\$5,112,000	\$511,200	\$2,556,000	\$1,022,400	\$1,533,600	\$1,533,600
Marlborough *	\$1,917,000	\$1,283,800	\$633,200	\$3,512,000	\$500,000	\$2,500,000	\$0	\$2,500,000	\$3,133,200
Medford	\$6,959,000	\$3,297,000	\$3,662,000	\$10,800,000	\$1,080,000	\$3,400,000	\$0	\$3,400,000	\$9,062,000
Melrose	\$3,988,000	\$3,988,000	\$0	\$6,865,000	\$686,500	\$3,432,500	\$2,746,000	\$686,500	\$686,500
Milton	\$4,123,000	\$4,123,000	\$0	\$5,967,000	\$596,700	\$2,983,500	\$641,000	\$2,342,500	\$2,342,500
Nahant	\$1,490,000	\$1,460,100	\$29,900	\$1,835,000	\$500,000	\$1,835,000	\$0	\$1,835,000	\$1,864,900
Needham *	\$794,000	\$794,000	\$0	\$1,894,000	\$500,000	\$1,894,000	\$337,265	\$1,556,735	\$1,556,735
Newton	\$13,602,000	\$13,602,000	\$0	\$20,837,000	\$2,083,700	\$10,418,500	\$2,083,700	\$8,334,800	\$8,334,800
Northborough *	\$1,048,000	\$986,053	\$61,947	\$1,450,000	\$500,000	\$1,450,000	\$0	\$1,450,000	\$1,511,947
Norwood	\$4,395,000	\$4,395,000	\$0	\$6,296,000	\$629,600	\$3,148,000	\$3,148,000	\$0	\$0
Peabody *	\$1,089,000	\$1,089,000	\$0	\$2,756,000	N/A +	\$2,756,000	\$0	\$0	\$0
Quincy**	\$10,505,000	\$10,505,000	\$0	\$14,425,000	\$1,425,000	\$9,976,400	\$8,551,200	\$1,425,200	\$1,425,200
Reading	\$4,146,000	\$4,146,000	\$0	\$5,073,000	\$507,300	\$2,536,500	\$1,500,000	\$1,036,500	\$1,036,500
Revere	\$5,034,000	\$5,034,000	\$0	\$5,315,000	\$531,500	\$2,657,500	\$2,126,000	\$531,500	\$531,500
Saugus	\$6,621,000	\$6,621,000	\$0	\$9,688,000	\$968,800	\$4,844,000	\$621,994	\$4,222,006	\$4,222,006
Somerville	\$7,419,000	\$3,898,234	\$3,520,766	\$10,791,000	\$1,079,100	\$5,395,500	\$0	\$5,395,500	\$6,916,266
Southborough	\$1,512,000	\$0	\$1,512,000	\$1,920,000	\$500,000	\$1,920,000	\$0	\$1,920,000	\$3,432,000
Stonham	\$2,339,000	\$2,339,000	\$0	\$2,742,000	\$500,000	\$2,500,000	\$1,800,000	\$700,000	\$700,000
Stoughton*	\$2,506,000	\$2,506,000	\$0	\$3,547,000	\$500,000	\$2,500,000	\$0	\$2,500,000	\$2,500,000
Swampscott	\$3,755,000	\$3,755,000	\$0	\$5,276,000	\$527,600	\$2,638,000	\$1,294,468	\$1,343,532	\$1,343,532
Wakefield *	\$2,325,000	\$2,325,000	\$0	\$3,356,000	\$500,000	\$2,500,000	\$1,000,000	\$1,500,000	\$1,500,000
Waltham	\$10,293,000	\$5,520,201	\$4,772,799	\$14,904,000	\$1,490,400	\$7,452,000	\$0	\$7,452,000	\$12,224,799
Watertown	\$2,978,000	\$2,978,000	\$0	\$3,745,000	\$500,000	\$2,500,000	\$1,500,000	\$1,000,000	\$1,000,000
Wellesley *	\$2,350,000	\$241,569	\$2,108,431	\$3,268,000	\$500,000	\$2,500,000	\$0	\$2,500,000	\$4,608,431
Weston	\$1,625,000	\$1,625,000	\$0	\$2,295,000	\$500,000	\$2,295,000	\$688,997	\$1,606,003	\$1,606,003
Wilmington *	\$611,000	\$611,000	\$0	\$1,306,000	\$500,000	\$1,306,000	\$0	\$1,306,000	\$1,306,000
Winchester *	\$882,000	\$775,000	\$107,000	\$1,394,000	\$500,000	\$1,394,000	\$0	\$1,394,000	\$1,501,000
Winthrop	\$3,312,000	\$3,312,000	\$0	\$4,119,000	N/A +	\$4,119,000	\$4,119,000	\$0	\$0
Woburn *	\$2,591,000	\$2,591,000	\$0	\$2,905,000	\$500,000	\$2,500,000	\$2,500,000	\$0	\$0
SUBTOTAL	\$200,000,000	\$180,160,572	\$19,839,428	\$279,346,800	\$32,859,500	\$162,163,500	\$73,572,188	\$88,591,112	\$108,450,540
Chicopee	\$7,153,000	\$5,183,400	\$1,969,600	\$9,774,000	\$977,400	\$4,887,000	\$0	\$4,887,000	\$6,856,600
South Hadley F.D. 1	\$1,538,000	\$1,538,000	\$0	\$2,026,000	\$500,000	\$2,500,000	\$500,000	\$2,000,000	\$2,000,000
Wilbraham	\$1,309,000	\$0	\$1,309,000	\$2,200,000	\$500,000	\$2,500,000	\$0	\$2,500,000	\$3,809,000
SUBTOTAL	\$10,000,000	\$6,721,400	\$3,278,600	\$14,000,000	\$1,977,400	\$9,887,000	\$500,000	\$9,387,000	\$12,665,600
TOTAL	\$210,000,000	\$186,881,972	\$23,118,028	\$293,346,800	\$34,836,900	\$172,050,500	\$74,072,188	\$97,978,112	\$121,096,140

* Partially Served Communities
[¶] Ashland and Burlington: Partial Water Communities Beginning in FY21
** Exempt per Board Approval
*** Per Board Approval, years 4, 9 and 10 allocations were distributed in June 2020