



MASSACHUSETTS WATER RESOURCES AUTHORITY

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

Frederick A. Laskey
Executive Director

BOARD OF DIRECTORS' MEETING

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

To be Held Virtually on March 17, 2021

Pursuant to Governor Baker's March 12, 2020 Order
Suspending Certain Provisions of the Open Meeting Law

WebEx Meeting Link for Attendees

<https://mwra.webex.com/mwra/onstage/g.php?MTID=edb368c18b737147f6350b7ad5512d8b8>

Event number: 129 041 8213 **Event password:** 0317

Time:

1:00 p.m.

REVISED AGENDA

I. APPROVAL OF MINUTES

II. REPORT OF THE CHAIR

III. REPORT OF THE EXECUTIVE DIRECTOR

IV. WASTEWATER POLICY AND OVERSIGHT

A. Information

1. Infiltration/Inflow Local Financial Assistance Program Annual Update

B. Contract Amendments/Change Orders

1. Chelsea Creek Headworks Upgrade: BHD/BEC JV 2015, A Joint Venture, Contract 7161 Change Order 45
2. Remote Headworks Upgrade: Arcadis U.S., Inc., Contract 7206, Amendment 7

V. WATER POLICY AND OVERSIGHT

A. Information

1. Response to WSCAC Correspondence on Green Forestry Certification
2. Local Water System Assistance Program Annual Update

B. Contract Awards

1. Quabbin Maintenance Building Design, Construction Administration and Resident Engineering Services: The Robinson Green Beretta Corporation, Contract 7677

C. Contract Amendments/Change Orders

1. Commonwealth Avenue Pumping Station: WES Construction, Contract 7524, Change Order 10

VI. PERSONNEL AND COMPENSATION

A. Approvals

1. PCR Amendments – March 2021
2. Appointment of Manager, Operations Administration
3. Appointment of Director, Security
4. Appointment of Deputy Director, MIS
5. Appointment of Associate General Counsel, Labor and Employment, Law

VII. ADMINISTRATION, FINANCE AND AUDIT

A. Information

1. Delegated Authority Report – February 2021
2. FY21 Financial Update and Summary as of February 2021

B. Approvals

1. Appointment of Proxy for Fore River Railroad Corporation

C. Contract Awards

1. Harbor Outfall Monitoring and Loading System Upgrade, Guild Systems, Inc., Contract 7653

VIII. CORRESPONDENCE TO THE BOARD

IX. OTHER BUSINESS

X. EXECUTIVE SESSION

- i. Approval of February 17, 2021 Executive Session Minutes
 - A. Real Estate
 1. Update on Chelsea Facility
 - B. Litigation
 1. MWRA. v. Dewberry Engineers, Inc. et al., Suffolk Superior Court, No. 18-01156-BLS1, MWRA Contracts 7334 and 7335, Section 4 Webster Avenue Pipe and Utility Bridge Replacement Project, Settlement Authority for Claims

XI. ADJOURNMENT

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the Board of Directors

February 17, 2021

Pursuant to Governor Baker's March 12, 2020 Order Suspending Certain Provisions of the Open Meeting Law the February 17, 2021 meeting of the Board of Directors of the Massachusetts Water Resources Authority was conducted by remote participation. Vice Chair Carroll presided. Present remotely from the Board, in addition to Vice Chair Carroll, were Ms. Wolowicz and Messrs. Cook, Cotter, Flanagan, Foti, Pappastergion, Peña, Vitale and Walsh. Chair Theoharides was absent. MWRA staff participants 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 of Tunnel Redundancy, Denise Breiteneicher, Program Manager, Energy and Environment, David Duest, Director, Deer Island Treatment Plant, Michael Cole, Budget Director, Matthew Horan, Deputy Director of Finance/Treasurer, Robert Belkin, Controller, Ethan Wenger, Deputy Director, Deer Island, Robert Huang, Program Manager, Energy Management, Valerie Moran, Director, Waterworks, Kristen Hall, Program Manager, Operations Engineering, Richard Adams, Manager, Engineering Services, Stephen Estes-Smargiassi, Director, Planning and Sustainability, Daniel Nvule, Senior Program Manager, Planning, Bethany Card, Director, Environmental and Regulatory Affairs, John Colbert, Chief Engineer, Patterson Riley, Special Assistant for Affirmative Action, Andrea Murphy, Director, Human Resources, and Assistant Secretaries Ria Convery and Kristin MacDougall. Vandana Rao, EOEEA and Joseph Favalaro, MWRA Advisory Board, also participated. The meeting was called to order at 1:00 pm. All motions were individually made and presented for discussion and deliberation. After any discussion and deliberation, motions for which there were no objections were then consolidated for one omnibus roll call vote.

APPROVAL OF JANUARY 20, 2021 MINUTES

A motion was duly made and seconded to approve the minutes of the Board of Directors' meeting of January 20, 2021.

Vice Chair Carroll called for any discussion or objections. Hearing none, the Vice Chair referred the motion to an omnibus roll call vote. (ref. I)

REPORT OF THE EXECUTIVE DIRECTOR

On behalf of MWRA staff, Mr. Laskey thanked and congratulated Mr. Cotter upon the occasion of his retirement from the MWRA Board of Directors after more than eighteen years of service. Vice Chair Carroll and members of the Board also offered congratulatory remarks. Mr. Cotter expressed appreciation for his fellow Board Members, Mr. Laskey and MWRA staff.

Documents used for this meeting, referenced above, can be found here:

<https://www.mwra.com/monthly/bod/boardmaterials/2021/OS-2021-02-17%20Board%20Materials.pdf>

Next, Mr. Laskey congratulated Board Member Peña upon the occasion of his new position as Town of Andover Water Superintendent.

Finally, Mr. Laskey reported on the recent enactment of new statewide legislation: *An Act Promoting Awareness of Sewage in Public Waters*.

(Mr. Cook joined the meeting during the Executive Director's report.)

ADMINISTRATION, FINANCE AND AUDIT INFORMATION

FY21-25 Strategic Business Plan

Staff made a presentation.

There was brief discussion and questions and answers.

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

FY2021 Second Quarter Orange Notebook

Staff made a presentation.

There were questions and answers.

Hearing no further discussion, Committee Chair Vitale proceeded to the next agenda item. (ref. IV A.2)

Delegated Authority Report – January 2021

Committee Chair Vitale called for questions.

There were questions and answers.

Committee Chair Vitale proceeded to the next agenda item. (ref. IV A.3)

FY2021 Mid-Year Capital Spending Report

Staff provided a verbal summary.

There were questions and answers.

Committee Chair Vitale proceeded to the next agenda item. (ref. IV A.4)

FY2021 Financial Update and Summary as of January 2021.

Staff provided a verbal summary.

There was brief discussion.

Committee Chair Vitale proceeded to the next agenda item. (ref. IV A.5)

Preliminary FY2022 Water and Sewer Assessments

Staff provided a verbal summary.

There were questions and answers.

Committee Chair Vitale proceeded to the next agenda item. (ref. IV A.6)

APPROVALS

Transmittal of the FY22 Proposed Current Expense Budget

A motion was duly made and seconded to approve transmittal of the FY22 Proposed Current Expense Budget to the MWRA Advisory Board for its 60 day review and comment period.

Staff made a presentation. There were questions and answers.

Vice Chair Carroll called for further questions or objections. Hearing none, the Vice Chair referred the motion to an omnibus roll call vote. (ref. IV B.1)

CONTRACT AWARDS

Audit Services: CliftonLarsonAllen LLP, Contract F261

A motion was duly made and seconded to approve the recommendation of the Consultant Selection Committee to award Contract F261, Audit Services, to CliftonLarsonAllen LLP and to authorize the Executive Director, on behalf of the Authority, to execute said contract in an amount not to exceed \$527,000 for a term of four years, from April 1, 2021 to March 31, 2025.

Staff provided a verbal summary.

Vice Chair Carroll called for any questions or objections. Hearing none, the Vice Chair referred the motion to an omnibus roll call vote. (ref. IV C.1)

Delegation of Authority to Execute a Contract for the Purchase and Supply of Electric Power for the Deer Island Treatment Plant

A motion was duly made and seconded to authorize the Executive Director, on behalf of the Authority, to execute a contract for the supply of electric power to the Deer Island Treatment Plant with the lowest responsive and responsible bidder for the period and pricing structure determined by staff to be in MWRA's best interest, and for a contract supply term not to exceed 36 months for the Deer Island account. This delegation of authority is necessary because MWRA will be required to notify the selected bidder of the award within a few hours of the bid submission to lock in the bid prices in a constantly changing market.

Staff provided a verbal summary. There was brief discussion and questions and answers.

Vice Chair Carroll called for further discussion or objections. Hearing none, the Vice Chair referred the motion to an omnibus roll call vote. (ref. IV C.2)

Metropolitan Operations Paving: Sunshine Paving Corporation, Contract OP-421

A motion was duly made and seconded to approve the award of Contract OP-421, Metropolitan Operations Paving, to the lowest responsible and eligible bidder, Sunshine Paving Corporation, and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of \$1,060,836.50 for a contract term of 1,000 days from the Notice to Proceed.

Staff provided a verbal summary. There were questions and answers.

Vice Chair Carroll called for further discussion or objections. Hearing none, the Vice Chair referred the motion to an omnibus roll call vote. (ref. IV C.3)

WASTEWATER POLICY AND OVERSIGHT

CONTRACT AMENDMENTS/CHANGE ORDERS

Deer Island Combined Heat and Power Study: Black & Veatch Corporation, Contract 6963A, Amendment 2

A motion was duly made and seconded to authorize the Executive Director, on behalf of the Authority, to approve Amendment 2 to Contract 6963A, Deer Island Treatment Plant – Combined Heat and Power Study, with Black & Veatch Corporation, to extend the contract term by seven months from March 7, 2021 to October 7, 2021 with no increase in contract amount.

Staff made a presentation. There were questions and answers.

Vice Chair Carroll called for further discussion or objections. Hearing none, the Vice Chair referred the motion to an omnibus roll call vote. (ref. V A.1)

WATER POLICY AND OVERSIGHT

INFORMATION

Report on 2020 Water Use Trends and Reservoir Status

Staff made a presentation. There was brief discussion.

Committee Chair Peña proceeded to the next agenda item. (ref. VI A.1)

Analysis of EPA's Revised Lead and Copper Rule

Staff made a presentation.

Hearing no questions or discussion, Committee Chair Peña proceeded to the next agenda item (ref. VI A.2)

Metropolitan Tunnel Redundancy Program Update: Filing of Environmental Notification Form

Staff made a presentation. There were questions and answers.

Committee Chair Peña proceeded to the next agenda item. (ref. VI A.3)

CONTRACT AWARDS

MWRA Boat Storage Facility and Cosgrove Intake Improvements: Poulin Construction Inc., Contract 6650C

A motion was duly made and seconded to approve the award of Contract 6650C, MWRA Boat Storage Facility and Cosgrove Intake Improvements, to the lowest responsible and eligible bidder, Poulin Construction Inc. and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of \$1,319,700 for a contract term of 365 calendar days from the Notice to Proceed.

Staff provided a verbal summary.

Vice Chair Carroll called for any discussion or objections. Hearing none, the Vice Chair referred the motion to an omnibus roll call vote. (ref. VI B.1)

PERSONNEL AND COMPENSATION

APPROVALS

Approval of the 2021 Affirmative Action Plan

A motion was duly made and seconded to approve the Massachusetts Water Resources Authority's Affirmative Action Plan effective for a one-year period from January 1, 2021 through December 31, 2021.

Staff provided a verbal summary. There were questions and answers.

Vice Chair Carroll called for further discussion or objection. Hearing one, the Vice Chair referred the motion to an omnibus roll call vote. (ref. VII A.1)

PCR Amendment – February 2021

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

Staff provided a verbal summary.

Vice Chair Carroll called for any discussion or objections. Hearing one, the Vice Chair referred the motion to an omnibus roll call vote. (ref. VII A.2)

Appointment of Area Manager, Deer Island

A motion was duly made and seconded to approve the appointment of Mr. Hugeton Francis to the position of Area Manager, Maintenance (Unit 6, Grade 12), at an annual salary of \$97,705.78 commencing on a date to be determined by the Executive Director.

Vice Chair Carroll called for any discussion or objections. Hearing one, the Vice Chair referred the motion to an omnibus roll call vote. (ref. VII A.3)

CONTRACT AWARDS

Workers' Compensation Legal Services: Tentindo, Kendall, Canniff & Keefe LLP, Contract A627

A motion was duly made and seconded to approve the recommendation of the Consultant Selection Committee to award Contract A627, Workers' Compensation Legal Services, to Tentindo, Kendall, Canniff & Keefe LLP and execute said contract in the not-to-exceed amount of \$300,000 for a term of three years from the Notice to Proceed.

Vice Chair Carroll called for any questions or objections. Hearing none, the Vice Chair referred the motion to an omnibus roll call vote. (ref. VII B.1)

CONTRACT AMENDMENTS/CHANGE ORDERS

Extension of Employment Contract - Sr. Lab Technician

A motion was duly made and seconded to approve the extension of an employment contract for Mr. Tomas Lopez-Gomez, Contract Senior Laboratory Technician, Department of Laboratory Services, for a period of 12 months from March 6, 2021 to March 5, 2022 at the current hourly rate of \$25.35 per hour for an annual compensation not to exceed \$52,728.00.

Vice Chair Carroll called for any questions or objections. Hearing none, the Vice Chair referred the motion to an omnibus roll call vote. (ref. VII C.1)

CORRESPONDENCE TO THE BOARD

Vice Chair Carroll announced that the MWRA Board of Directors had received a letter from the Water Supply Citizens Advisory Committee (WSCAC) in support of Green Certification for the Quabbin, Ware and Wachusett Watersheds.

There was brief discussion.

The Vice Chair deferred the item for further discussion at a future Board of Directors meeting. (ref. VIII)

OMNIBUS ROLL CALL VOTE

Vice Chair Carroll 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>
Carroll		
Cook		
Cotter		
Foti		
Flanagan		
Pappastergion		
Peña		
Vitale		
Walsh		
Wolowicz		

Voted: to approve the minutes of the Board of Directors' meeting of January 20, 2021; (ref. I)

Further, voted: to approve transmittal of the FY22 Proposed Current Expense Budget to the MWRA Advisory Board for its 60 day review and comment period; (ref. IV B.1)

Further, voted: to approve the recommendation of the Consultant Selection Committee to award Contract F261, Audit Services, to CliftonLarsonAllen LLP and to authorize the Executive Director, on behalf of the Authority, to execute said contract in an amount not to exceed \$527,000 for a term of four years, from April 1, 2021 to March 31, 2025; (ref. IV C.1)

Further, voted: to authorize the Executive Director, on behalf of the Authority, to execute a contract for the supply of electric power to the Deer Island Treatment Plant with the lowest responsive and responsible bidder for the period and pricing structure determined by staff to be in MWRA's best interest, and for a contract supply term not to exceed 36 months for the Deer Island account. This delegation of authority is necessary because MWRA will be required to notify the selected bidder of the award within a few

hours of the bid submission to lock in the bid prices in a constantly changing market; (ref. IV C.2)

Further, voted: to approve the award of Contract OP-421, Metropolitan Operations Paving, to the lowest responsible and eligible bidder, Sunshine Paving Corporation, and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of \$1,060,836.50 for a contract term of 1,000 days from the Notice to Proceed; (ref. IV C.3)

Further, voted: to authorize the Executive Director, on behalf of the Authority, to approve Amendment 2 to Contract 6963A, Deer Island Treatment Plant – Combined Heat and Power Study, with Black & Veatch Corporation, to extend the contract term by seven months from March 7, 2021 to October 7, 2021 with no increase in contract amount; (ref. V A.1)

Further, voted: to approve the award of Contract 6650C, MWRA Boat Storage Facility and Cosgrove Intake Improvements, to the lowest responsible and eligible bidder, Poulin Construction Inc. and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of \$1,319,700 for a contract term of 365 calendar days from the Notice to Proceed; (ref. VI B.1)

Further, voted: to approve the Massachusetts Water Resources Authority's Affirmative Action Plan effective for a one-year period from January 1, 2021 through December 31, 2021; (ref. VII A.1)

Further, voted: to approve an amendment to the Position Control Register (PCR) as presented and filed with the records of the meeting; (ref. VII A.2)

Further, voted: to approve the appointment of Mr. Hugeton Francis to the position of Area Manager, Maintenance (Unit 6, Grade 12), at an annual salary of \$97,705.78 commencing on a date to be determined by the Executive Director; (ref. VII A.3)

Further, voted: to approve the recommendation of the Consultant Selection Committee to award Contract A627, Workers' Compensation Legal Services, to Tentindo, Kendall, Canniff & Keefe LLP and execute said contract in the not-to-exceed amount of \$300,000 for a term of three years from the Notice to Proceed; (ref. VII B.1) and,

Further, voted: to approve the extension of an employment contract for Mr. Tomas Lopez-Gomez, Contract Senior Laboratory Technician, Department of Laboratory Services, for a period of 12 months from March 6, 2021 to March 5, 2022 at the current hourly rate of \$25.35 per hour for an annual compensation not to exceed \$52,728.00. (ref. VII C.1)

EXECUTIVE SESSION

Vice Chair Carroll moved that the Board enter Executive Session to discuss security and real estate since discussion in Open Session may have a detrimental effect upon the negotiating position of the Authority; further, to not return to Open Session and to adjourn the meeting from Executive Session.

MWRA General Counsel Francisco Murphy announced that under the Open Meeting Law members who are participating remotely must state that no other person is

present or able to hear the discussion at their remote locations, and that a response of “yes” to the Roll Call to enter Executive Session when their names are called would be deemed their statements that no other person is present or able to hear the Executive Session discussion at their remote locations.

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>
Carroll		
Cook		
Cotter		
Foti		
Flanagan		
Pappastergion		
Peña		
Vitale		
Walsh		
Wolowicz		

Voted: to enter Executive Session to discuss security and real estate; further, voted: to not return to Open Session, and to adjourn the meeting from Executive Session.

*** EXECUTIVE SESSION ***


The meeting entered Executive Session at 2:40pm and adjourned at 2:55pm.

Approved: March 17, 2021

Attest:

Andrew M. Pappastergion, Secretary


STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: March 17, 2021
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
Carl H. Leone, P.E., Senior Program Manager, Planning
Jon F. Szarek, P.E., Project Manager, Planning
Preparer/Title


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

MWRA's Infiltration/Inflow (I/I) Local Financial Assistance Program, initiated in 1993, has provided funding in the form of grants and loans, to member sewer communities to perform I/I reduction and sewer system rehabilitation projects within their locally-owned collection systems. I/I and stormwater (from combined sewers) take up pipeline capacity in the collection system that would otherwise be available to transport sanitary flow. While improvements in receiving water quality in the harbor and rivers are the direct result of MWRA's CSO Long-Term Control Plan Program and system modernization efforts, they can also be attributed in part to the success of community efforts funded by this program. Programs like this should continue to be considered as a cost effective means to solve regional or system-wide issues.

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/replacement and efficient operation and maintenance of local collection systems. Staff 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, are providing gradual flow reduction improvements for 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, which will allow for future regional growth leading to increases in sanitary flows (residential, commercial, industrial, and institutional) without a net increase in total wastewater flow to the Deer Island Treatment Plant. 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 281 mgd, well below the NPDES permit limit (see Table 1).

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

Calendar Year	Total Wastewater Flow	Dry Day Wastewater Flow
2011	379 mgd	328 mgd
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
10 Year Average	321 mgd	281 mgd

Update on Distribution of I/I Financial Assistance to Communities

Since 1993, a total of \$760.75 million in grant and loan funds have 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. Most recently in June 2018, Phases 11, 12, and 13 were added at \$100 million each. 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.

All 43 sewer customer communities are participating in the financial assistance program. Through December 2020, a total of \$457 million has been distributed to member communities to fund 616 local sewer rehabilitation projects. The remaining \$303.8 million is approved for distribution through FY30. All scheduled community loan repayments have been made, a total of \$181 million to date. Of the 616 total projects, 545 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.

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.

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. All available funds have been utilized by member communities through Phase 6. The grant portion of Phase 7 funds will sunset at the end of FY21 and only two communities have Phase 7 funds remaining to be distributed (Holbrook and Malden). Both of these communities have indicated they will apply for their Phase 7 funds in May 2021 before the sunset date.

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. Seventy-nine 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.

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:	\$ 47.6	\$ 7.2	\$ 54.8 (12%)
Design:	15.4	4.2	19.6 (4%)
Construction:	259.1	101.0	360.1 (79%)
Eng. Services During Const.:	18.3	4.2	22.5 (5%)
TOTAL	\$ 340.4 (74%)	\$ 116.6 (26%)	\$ 457.0 (100%)

Program Results from Local Projects

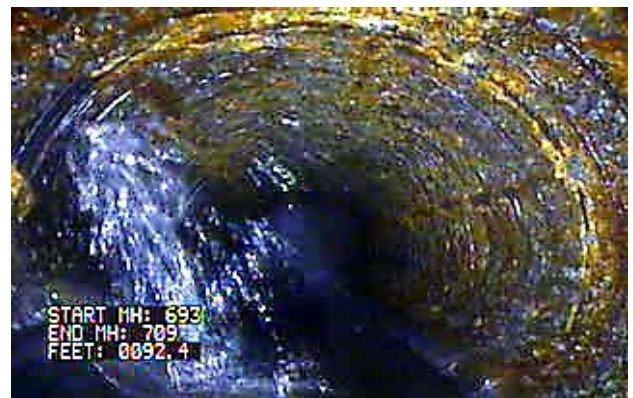
Through December 2020, a total of 616 local I/I reduction and sewer system rehabilitation projects have been funded through the MWRA’s I/I Local Financial Assistance (grant/loan) Program. Cumulative results are summarized below.

Results for planning and sewer inspection projects:

- 2,312 miles of sewer TV inspected
- 1,552 miles of sewer flow isolated
- 1,388 miles of sewer smoke tested
- 64,000 sewer manholes inspected
- 78,232 buildings inspected



Sewer TV Inspection



Infiltration Source Identified by Sewer TV Inspection

Results for projects targeting infiltration reduction:

- 71 miles of sewer replaced
- 284 miles of cured-in-place-pipe (CIPP) liner installed
- 189 miles of sewer tested/chemically sealed
- 2,995 sewer spot repairs
- 17,747 service connection repairs
- 4.8 miles of underdrains sealed

Results for projects targeting inflow reduction:

- 1,064 catch basins disconnected
- 44 miles of new or replaced storm drains installed
- 21,962 manholes rehabilitated/sealed
- 3,700 manhole covers replaced or inflow seals installed
- 551 sump pumps redirected
- 5,425 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 or 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 reduce.

Inflow is extraneous flow entering the collection system through point sources and may be directly related to storm water 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.



Infiltration into a Sanitary Sewer



Inflow into a Manhole During Flooding

Storm Water 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 infiltration, inflow, 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. Infiltration and inflow is extraneous water that enters all wastewater collection systems through a variety of sources. I/I and stormwater 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 (32 years from 1989-2020) 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 43.4 inches. Using the five-year running average over the long-term, the total system wastewater average daily flow has declined approximately 82 mgd, a reduction of 21%. The north collection system wastewater flow has declined by approximately 61 mgd, while the south collection system wastewater flow has declined by approximately 21 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:

- 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, sewerage area population has increased by approximately 275,000 (due to increased population and expanded sewerage areas). The net decrease in wastewater flow from reduced indoor water use is estimated at 20 mgd over the last 20 years.

Review of Frequency and Duration of Sanitary Sewer Overflow Events

Attachments 4 presents Sanitary Sewer Overflow (SSO) event frequency data for MWRA's north and south collection systems over the last 22 years (1999-2020). Attachment 5 presents SSO duration data (number of hours the SSO occurred) for one representative SSO location in MWRA's south collection systems over the last 22 years (1999-2020). This data relates only to rainfall related wet-weather flows and excludes dry-weather SSOs that may have resulted from maintenance issues. SSO data pre-1999 has not been presented, since 1999 represents the first complete year when full pumping capacity at Deer Island Treatment Plant was reached (following completion of the Nut Island Headworks and Inter-Island Tunnel). For periods of comparable rainfall, the frequency of SSOs pre-1999 was significantly higher.

Attachment 4 shows the frequency of SSOs has declined during periods of comparable rainfall over the last 22 years. A single month with very high rainfall or the cumulative effect of consecutive months with medium to high rainfall may put MWRA's regional collection system at risk of SSOs. Attachment 4 displays monthly rainfall totals (Logan Airport) with the blocks shaded darker blue to represent larger monthly rainfall totals. The blocks shaded pink list the number of north and south "SSO Risk Assessment Areas" that had an active SSO during the month (north SSOs are listed on top and south SSOs are listed on the bottom). The "SSO Risk Assessment Areas" (12 in the north and 8 in the south) are one or more manholes or structures where SSOs have historically occurred and are hydraulically connected within a small geographic area.

As shown on Attachment 4, there were SSOs in the north or south system during three different months in two years (2003 and 2008); there were SSOs during two different months in five years (2000, 2002, 2006, 2010, and 2015); there were SSOs during one month in eleven years; and only during 2009, 2016, 2019 and 2020 were there no wet-weather SSOs in either the north or south systems. The extraordinarily rainy spring of 2010 (over 14 inches of rain in March) and December 2014 (three consecutive months of over five inches of rain) were the last two extended wet-weather periods which produced widespread SSOs in MWRA's system.

Attachment 5 again displays monthly rainfall totals (Logan Airport) with the blocks shaded darker blue to represent larger monthly rainfall totals. In Attachment 5, the blocks shaded pink list the duration of the SSO in hours at the most frequent South System SSO Risk Assessment Area (S-1 at Smelt Brook Siphon headhouse at the Braintree/Weymouth Town Line). The data displayed in Attachment 5 shows the duration of SSO at the Smelt Brook Siphon has declined for periods of comparable rainfall over the last 22 years. The most recent SSO at this site lasted for 26 hours during the March 2-3, 2018 severe storm event, which included multiple extreme high tides from storm surge and significant south coastal flooding. During this event, storm surge raised the high tide elevation a few inches above the Smelt Brook Siphon headhouse structures.

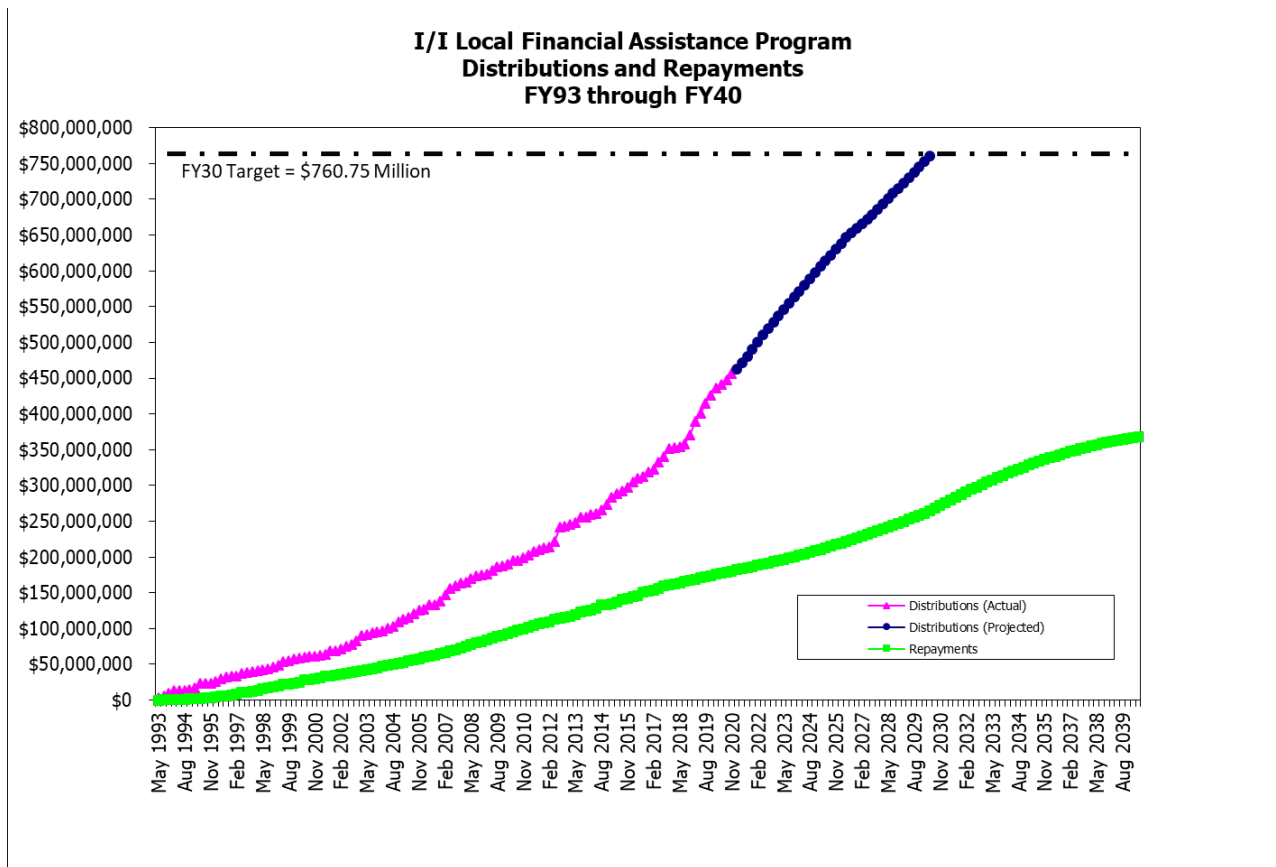
Wastewater Flow Reduction Summary

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, are providing gradual wastewater flow reduction in the regional collection system tributary to the Deer Island Treatment Plant.

BUDGET/FISCAL IMPACT:

The FY21 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 2020, \$457.0 million in grants and loans (\$237 million in grants and \$220 million in loans) have been distributed. The program has a remaining balance of \$304 million in future community grants and loans through FY30. Community loan repayments to date are \$181 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 4 - Monthly Rainfall Data 1999-2020 and Number of SSOs at Risk Assessment Areas

Attachment 5 - Monthly Rainfall Data 1999-2020 and Duration of SSO (Hours)
at Risk Assessment Area S-1 at Smelt Brook Siphon (South System)

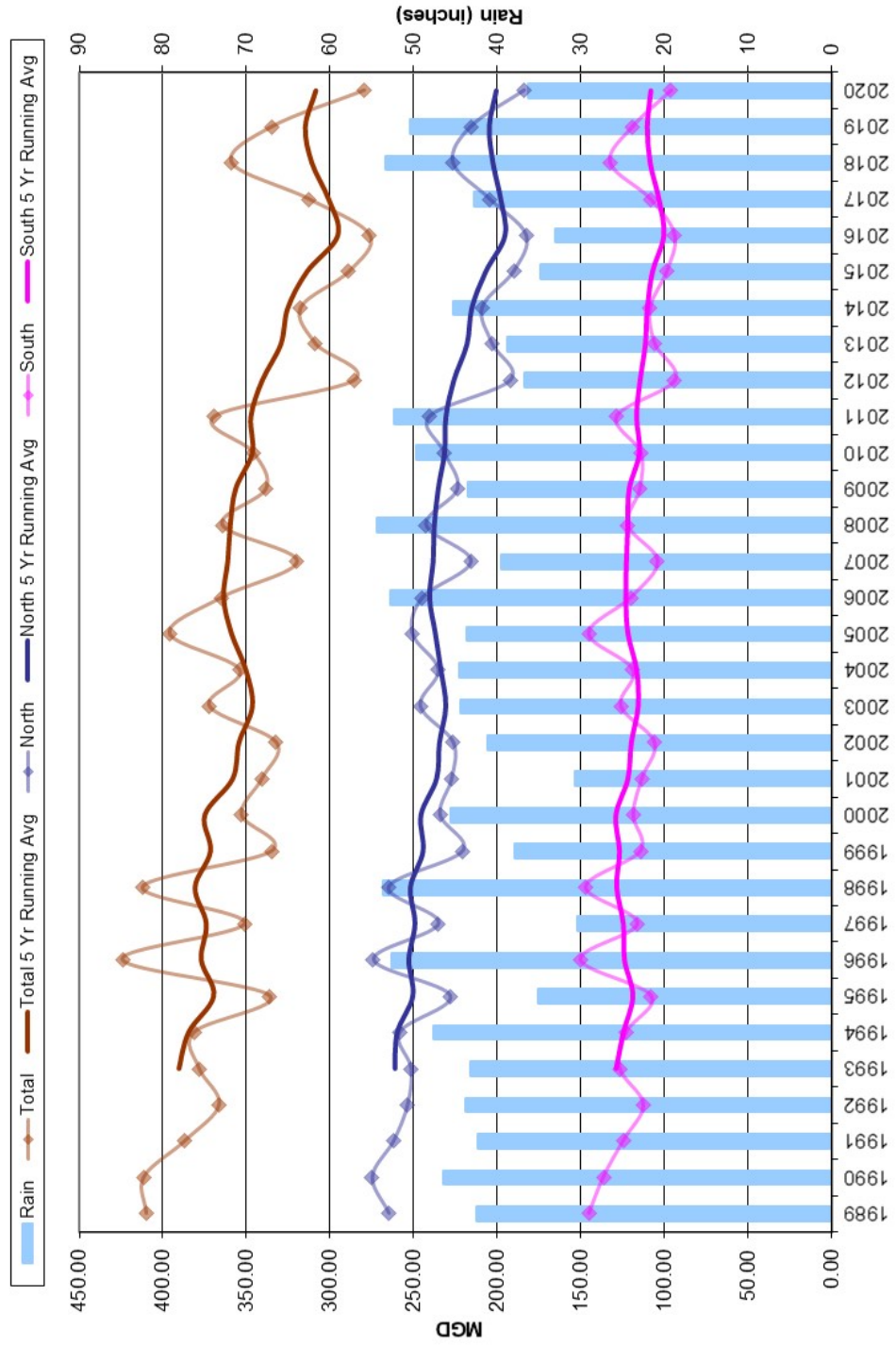
**ATTACHMENT 1
MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM
FUNDING SUMMARY AS OF DECEMBER 2020**

Community	Total Allocations (Phases 1 - 13)	Total Distributions (Phases 1 - 13)	Percent Distributed	Funds Remaining
Arlington	\$13,703,000	\$10,023,000	73%	\$3,680,000
Ashland	\$3,818,500	\$1,742,450	46%	\$2,076,050
Bedford	\$5,654,600	\$2,439,658	43%	\$3,214,942
Belmont	\$8,255,100	\$5,135,100	62%	\$3,120,000
Boston	\$218,001,200	\$97,064,876	45%	\$120,936,324
Braintree	\$14,419,000	\$9,928,840	69%	\$4,490,160
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	\$2,675,900	40%	\$3,960,000
Chelsea	\$11,760,100	\$10,130,100	86%	\$1,630,000
Dedham	\$9,220,000	\$6,900,000	75%	\$2,320,000
Everett	\$13,381,500	\$6,650,500	50%	\$6,731,000
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	\$5,641,900	27%	\$15,042,000
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	\$7,864,500	87%	\$1,150,000
Natick	\$9,332,600	\$5,582,600	60%	\$3,750,000
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	\$26,237,239	80%	\$6,542,761
Randolph	\$10,070,800	\$4,971,058	49%	\$5,099,742
Reading	\$7,749,100	\$5,669,100	73%	\$2,080,000
Revere	\$16,940,900	\$5,502,900	32%	\$11,438,000
Somerville	\$25,955,800	\$12,116,900	47%	\$13,838,900
Stoneham	\$7,829,900	\$5,889,900	75%	\$1,940,000
Stoughton	\$7,902,900	\$6,724,150	85%	\$1,178,750
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	\$15,226,900	68%	\$7,055,500
Watertown	\$10,155,800	\$6,285,800	62%	\$3,870,000
Wellesley	\$9,249,700	\$4,739,700	51%	\$4,510,000
Westwood	\$4,302,300	\$2,091,300	49%	\$2,211,000
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	\$4,561,150	82%	\$992,250
Woburn	\$16,665,500	\$14,675,500	88%	\$1,990,000
Totals	\$760,750,000	\$456,917,583	60%	\$303,832,417

ATTACHMENT 2
 MWRA I/I Local Financial Assistance Program - Fiscal Year Breakdown

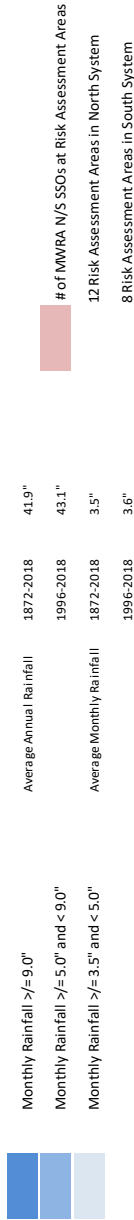
FY	Distribution Cycle	Distribution Amount	Distribution Cycle	Distribution Amount	Distribution Cycle	Distribution Amount	Distribution Cycle	Distribution Amount	FY Total
FY93	Aug 1992	\$0	Nov 1992	\$0	Feb 1993	\$0	May 1993	\$2,714,883	\$2,714,883
FY94	Aug 1993	\$3,096,468	Nov 1993	\$4,096,133	Feb 1994	\$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		May 2021		\$15,876,446
Total		\$116,583,119		\$110,193,362		\$106,712,390		\$123,428,711	\$456,917,583
Average		\$4,163,683		\$3,935,477		\$3,952,311		\$4,408,158	\$16,459,628

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



ATTACHMENT 4
Community Support Program Tracking

Monthly Rainfall Data 1999-2020 and SSOs at Risk Assessment Areas



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1999	5.69	3.51	2.52	0.83	2.70	0.00	3.51	1.33	9.86	4.30	2.14	1.52	37.91
2000	2.62	2.55	3.59	5.02	2.88	6.61	5.20	2.22	2.87	2.86	4.51	4.67	45.60
2001	1.58	1.37	7.57	0.88	1.23	4.99	2.13	4.14	2.29	0.98	0.73	2.83	30.72
2002	3.14	1.81	3.52	2.61	4.48	4.77	1.42	2.13	3.39	3.47	5.03	5.30	41.07
2003	1.81	4.21	4.00	4.00	4.12	4.69	2.11	2.89	2.65	6.20	2.63	5.06	44.37
2004	1.01	1.45	3.38	9.57	3.07	1.95	3.87	4.38	7.44	1.88	2.91	3.66	44.57
2005	4.45	2.70	3.89	3.17	3.98	1.46	3.37	2.88	1.78	9.41	3.71	2.87	43.67
2006	4.55	2.64	0.56	1.83	12.48	10.09	3.58	3.20	1.72	4.50	5.80	1.89	52.84
2007	2.57	2.20	4.31	6.71	3.70	2.12	5.26	0.66	1.81	2.08	2.80	5.25	39.47
2008	2.69	7.94	4.66	2.98	2.73	3.46	6.00	4.47	6.45	1.41	4.57	7.10	54.46
2009	3.35	1.94	2.51	4.13	2.69	3.22	6.90	3.24	3.09	5.17	3.34	3.91	43.49
2010	2.91	3.34	14.87	1.78	2.90	3.18	2.66	5.75	1.80	3.90	2.96	3.61	49.66
2011	4.57	4.57	2.10	4.03	3.23	4.76	2.04	7.74	4.40	6.77	4.21	3.97	52.39
2012	2.67	1.00	1.21	3.09	3.43	4.71	3.88	3.08	4.10	2.82	1.01	5.93	36.73
2013	1.08	3.66	3.32	1.37	3.22	10.50	3.61	1.84	2.21	0.61	2.72	4.62	38.76
2014	3.24	4.13	4.48	3.24	2.86	2.62	4.57	1.75	0.70	5.83	5.27	6.56	45.25
2015	3.57	3.37	3.05	2.28	1.22	5.01	2.09	2.19	3.93	1.74	2.07	4.28	34.80
2016	3.27	4.17	3.16	2.91	2.83	1.33	0.87	1.72	1.38	5.46	2.70	3.25	33.05
2017	3.50	3.22	4.18	5.73	3.45	4.85	4.03	1.58	3.73	4.14	1.80	2.49	42.70
2018	4.92	3.76	5.07	4.62	1.90	2.96	4.55	4.65	5.12	3.78	9.26	2.72	53.31
2019	3.62	3.45	2.95	6.52	3.35	5.15	5.81	3.48	2.16	4.45	3.37	6.07	50.38
2020	1.39	3.30	3.60	4.33	2.21	2.66	1.74	2.28	0.97	4.98	4.20	4.67	36.33

* Rag clogging at B/W Pump Stations - Limited Pumping
 ** Significant Snow Melt
 *** Extreme High Tide with Storm Surge on South Coast

ATTACHMENT 5
Community Support Program Tracking
Monthly Rainfall Data 1999-2020 and Duration of SSO (Hours) at Risk Assessment Area S-1
Smelt Brook Siphon - Braintree/Weymouth

South System

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1999	5.69	3.51	2.52	0.93	2.70	0.00	3.51	1.33	9.86	4.30	2.14	1.52	37.91
2000	2.62	2.55	3.59	5.02	2.88	6.61	5.20	2.22	2.87	2.86	4.51	4.67	45.60
2001	1.58	1.37	7.57	151	1.23	4.99	2.13	4.14	2.29	0.98	0.73	2.83	30.72
2002	3.14	1.81	3.52	2.61	4.48	4.77	1.42	2.13	3.39	3.47	5.03	4	41.07
2003	1.81	4.21	4.00	48	4.12	4.69	2.11	2.89	2.65	6.20	2.63	5.06	44.37
2004	1.01	1.45	3.38	9.57	3.07	1.95	3.87	4.38	7.44	1.88	2.91	3.66	44.57
2005	4.45	2.70	3.89	3.17	3.98	1.46	3.37	2.88	1.78	9.41	0	2.87	43.67
2006	4.55	2.64	0.56	1.83	12.48	10.09	3.58	3.20	1.72	4.50	5.80	1.89	52.84
2007	2.57	2.20	4.31	6.71	3.70	2.12	5.26	0.66	1.81	2.08	2.80	5.25	39.47
2008	2.69	7.94	4.66	7	2.73	3.46	6.00	4.47	6.45	1.41	4.57	7.10	54.46
2009	3.35	1.94	2.51	4.13	2.69	3.22	6.90	3.24	3.09	5.17	3.34	3.91	43.49
2010	2.91	3.34	14.87	105	2.90	3.18	2.66	5.75	1.80	3.90	2.96	3.61	49.66
2011	4.57	4.57	2.10	4.03	3.23	4.76	2.04	7.74	4.40	6.77	4.21	3.97	52.39
2012	2.67	1.00	1.21	3.09	3.43	4.71	3.88	3.08	4.10	2.62	1.01	5.93	36.73
2013	1.08	3.66	8	1.37	3.22	10.50	3.61	1.84	2.21	0.61	2.72	4.62	38.76
2014	3.24	4.13	4.48	3.24	2.86	2.62	4.57	1.75	0.70	5.83	5.27	6.56	45.25
2015	3.57	3.37	3.05	2.28	1.22	5.01	2.09	2.19	3.93	1.74	2.07	4.28	34.80
2016	3.27	4.17	3.16	2.91	2.83	1.33	0.87	1.72	1.38	5.46	2.70	3.25	33.05
2017	3.50	3.22	4.18	5.73	3.45	4.85	4.03	1.58	3.73	4.14	1.80	2.49	42.70
2018	4.92	3.76	5.07	26	1.90	2.96	4.55	4.65	5.12	3.78	9.26	2.72	53.31
2019	3.62	3.45	2.95	6.52	3.35	5.15	5.81	3.48	2.16	4.45	3.37	6.07	50.38
2020	1.39	3.30	3.60	4.33	2.21	2.66	1.74	2.28	0.97	4.98	4.20	4.67	36.33

Monthly Rainfall >/= 9.0"

Monthly Rainfall >/= 5.0" and <9.0"

Monthly Rainfall >/= 3.5" and <5.0"

Average Annual Rainfall 1872-2018 41.9"

1996-2018 43.1"

Average Monthly Rainfall 1872-2018 3.5"

1996-2018 3.6"

of Hours of SSO at Risk Assessment Area S-1

STAFF SUMMARY


TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: March 17, 2021
SUBJECT: Chelsea Creek Headworks Upgrade
BHD/BEC 2015, A Joint Venture
Contract 7161, Change Order 45



COMMITTEE: Wastewater Policy & Oversight

INFORMATION
 VOTE

Corinne M. Barrett, Director, Construction
Martin E. McGowan, Construction Coordinator
Preparer/Title



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

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to approve Change Order 45 to Contract 7161, Chelsea Creek Headworks Upgrade, with BHD/BEC 2015, A Joint Venture for an amount not to exceed \$644,447.00, increasing the contract amount from \$84,189,092.06 to \$84,833,539.06, with no increase in contract term.

Further, to authorize the Executive Director to approve additional change orders as may be needed to Contract 7161 in an amount not to exceed the aggregate of \$250,000, in accordance with the Management Policies and Procedures of the Board of Directors.

DISCUSSION:

The Chelsea Creek Headworks is one of three remote headworks facilities that provides preliminary treatment and flow control of wastewater from MWRA's Northern Service Area before reaching the Deer Island Treatment Plant. Preliminary treatment at Chelsea Creek Headworks includes grit and screenings removal, which prevents excessive wear and maintenance of equipment at the North Main Pump Station, and protects the cross harbor tunnel from filling with debris. The Chelsea Creek Headworks was constructed in the 1960s and received its last significant upgrade in 1987.

This project is a major upgrade of the entire facility and includes automation of the screenings collection and solids conveyance system, allowing the facility to be unstaffed during dry weather flow. The grit collector systems are being replaced and existing climber screens are being replaced with catenary screens. Influent and effluent sluice gates are being replaced and the gate hydraulic operating system is being replaced with electric gate actuators. Carbon adsorbers are being installed for odor control, HVAC systems are being upgraded, and redundancy is being added to

both systems. Ancillary systems including the emergency generator, fuel oil tank, and transformer are being replaced. Instrumentation and control systems are being upgraded, the communications tower is being replaced and a communications building is being added. Abatement of hazardous building materials including paint containing PCBs, flood protection measures to protect the facility to the 100-year flood elevation plus 2.5 feet, and upgrades to meet current code requirements for egress, electrical, plumbing and fire suppression are also included.

Project Update

- All four process channels have been rehabilitated and are available for service. The facility is currently undergoing a 30-day reliability test. There were multiple failures of the new stainless steel grit collector chain in the first two channels. MWRA, the Contractor and the chain supplier disagree as to the cause of the failure and the parties have reserved their respective rights. New collector chain was fabricated and has been installed in all four channels.
- The new odor control system, including filters, fans and carbon adsorbers was completed and placed into service in October 2020. The new makeup air units were placed into service in May 2020. Final system balancing is ongoing.
- Hazardous material abatement is approximately 99% complete.
- The Contractor is now beginning final site restoration for project completion.

This Change Order

Change Order 45 consists of the following three items:

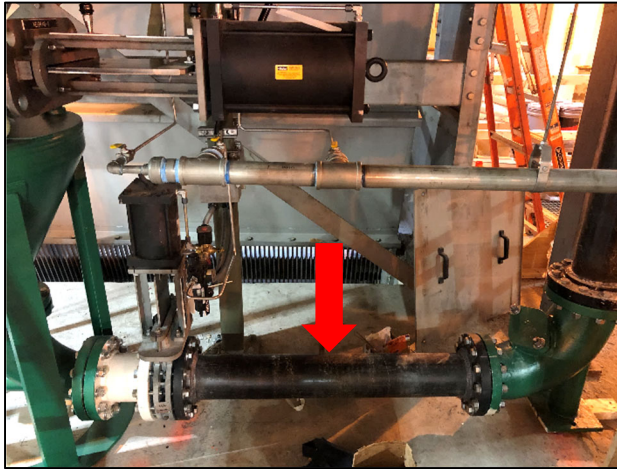
Pneumatic Ejection System Piping Modifications

Not to Exceed \$350,000

Change Order 26 was executed on March 14, 2019 for an amount not to exceed \$375,000. It required the Contractor to furnish and install additional pipe and fittings to avoid conflicts with existing equipment while maintaining necessary access spaces to complete the pneumatic ejection piping system. This piping system conveys grit and screening materials from the operating floor up to the new dumpsters located on the ground level. The original pipe alignment did not account for the necessary pipe supports and restraints or the requirement to maintain continued operation of three process channels during construction. To remedy this, the new pipe system alignment had to match the existing piping on the operating level. The Contractor was then able to connect new piping to the existing, with brief interruptions for Operations staff to eject grit and screening material collected from the channels.

Due to the abrasive nature of the grit, the pipe and fittings are made of ASTM A335 P22 alloy steel, which provides the necessary abrasive resistance properties for these severe service conditions. This pipe has a 5/8-inch wall thickness with Class 300 ANSI welded flanges. In addition, the fittings are lined with a ceramic reinforced composite material to provide additional protection in the bends where the abrasive forces are highest. Fabrication and delivery of these

specialty pipe and fittings are approximately 12-16 weeks. Since the new alignment required connections from new equipment to the existing piping system, the Contractor was unable to get precise lay lengths for pipe spools until the piping was disassembled. This heavy duty pipe is unforgiving to minor inaccuracies and will not fit properly if measurements are not exact. Since these connections were being made to an active pipe system, the long lead time for pipe fabrication was unacceptable. This required the Contractor to fabricate temporary closure spools at each connection point to ensure pipe integrity. These closure spools were fabricated on site using Schedule 120 steel pipe and allowed the piping system to be returned to service while the permanent P22 pipe could be fabricated with the exact known lay length.



Typical Temporary Closure Spool



Ejection Piping (in green) in Odor Control Room

A key element of the Chelsea Creek Headworks upgrade was relocating the outdoor dumpsters to a new indoor location to reduce odors from the facility. The final pipe route to the new grit bin room is located within the footprint of the old wet scrubbers in the odor control room. When the wet scrubbers were demolished in April 2020, additional conflicts with existing columns and ductwork were identified in the original pipe route. To eliminate these direct conflicts, additional fittings and pipe spools were required on the ground level of the facility, similar to what was done on the operating level.

At the time Change Order 26 was executed, the labor and material needed to fabricate and install temporary closure spools were not included in the original cost. In addition, the recent conflicts identified at the wet scrubbers were unknown and must now be included to provide a complete piping system to the new indoor dumpsters. To correct these errors, the Contractor must furnish and install additional pipe and fittings to eliminate conflicts in the odor control room and fabricate temporary closure spools to ensure continued operation of the pneumatic ejection system.

This item was identified by MWRA staff as a design error. MWRA staff, the Consultant and the Contractor have agreed to a not-to-exceed amount of \$350,000 for this work. The Contractor proceeded with this work at its own risk in order to complete the remainder of the contract work.

Reimbursement for COVID-19 Costs

Not to Exceed \$250,000

The Governor of the Commonwealth of Massachusetts issued an Essential Services Order on March 23, 2020, assuring continued operation of essential services in the Commonwealth, closing certain workspaces and prohibiting gatherings of more than ten people. The Order designated a range of critical services and functions as “COVID-19 Essential Services” to ensure continued operation, to protect the health and welfare of the Commonwealth, support community resilience, and maintain continuity of response efforts. The Order included water and sewer public works construction projects as essential services and the construction workers who support the construction, operation, inspection and maintenance of such construction sites and projects as essential workers.

The Commonwealth’s “COVID-19 Guidelines and Procedures for All Construction Sites and Workers at All Public Works” established COVID-19 related safety requirements, which allow work to continue on MWRA construction projects. These Guidelines required the Contractor to hold a safety stand down meeting at the site with all construction personnel, establish a site specific COVID Officer and employ other protocols. This change order reimburses the Contractor for compensable costs associated with complying with these required guidelines and procedures.

This item was identified by MWRA staff as an unforeseen condition. MWRA staff, the Consultant, and the Contractor have agreed to a not-to-exceed amount of \$250,000 for this work. The Contractor proceeded with this work at its own risk in order to comply with the Commonwealth’s guidelines and procedures.

Concrete Infills for Abandoned Roof Openings

\$44,447

The Contractor is required to replace the existing roofing system at the Chelsea Creek Headworks. There were a number of existing openings and penetrations in the concrete roof slab. These include exhaust fans, air conditioning units, vent pipes, roof drains and access hatches. As part of the new facility overhaul, all of these components have been replaced. In most cases, the new equipment was installed in different locations on the roof and the existing penetrations have been abandoned. In order to provide a solid substrate for the new roofing system, these abandoned openings had to be sealed with concrete prior to the roofing subcontractor installing the new roof. After commencement of the contract, it was noted that nine of these existing roof penetrations were not identified in the contract documents. In order to correct this omission, the Contractor must furnish and install reinforcing steel and concrete to infill nine of the abandoned roof openings to provide a solid substrate for the new membrane roofing system.



Typical Roof Infill for Abandoned Exhaust

This item was identified by MWRA staff as a design omission. MWRA staff, the Consultant, and the Contractor have agreed to a lump sum amount of \$44,447 for this work. The Contractor proceeded with this work at its own risk in order to complete the remainder of the contract work.

Staff are compiling a list of all change order items that have resulted from an error or omission and will conduct a review at the end of the project regarding responsibility of the Design Consultant, Arcadis U.S., Inc., and the potential for any cost recovery.

CONTRACT SUMMARY:

	<u>Amount</u>	<u>Time</u>	<u>Dated</u>
Original Contract:	\$72,859,000.00	1,460 Days	11/22/16
Change Orders:			
Change Order 1	\$252,512.00	0 Days	06/29/17
Change Order 2*	\$208,431.00	0 Days	07/24/17
Change Order 3	\$1,129,740.20	0 Days	07/24/17
Change Order 4*	\$237,870.00	0 Days	10/18/17
Change Order 5	\$304,036.26	0 Days	12/21/17
Change Order 6*	\$207,226.00	0 Days	01/26/18
Change Order 7	\$1,278,783.00	0 Days	02/07/18
Change Order 8	\$937,267.00	0 Days	02/22/18
Change Order 9	\$17,321.00	0 Days	04/03/18
Change Order 10*	\$20,879.00	0 Days	04/11/18
Change Order 11*	\$200,000.00	0 Days	05/18/18
Change Order 12	\$1,000,000.00	0 Days	05/31/18
Change Order 13*	\$129,783.00	0 Days	06/12/18
Change Order 14	\$500,000.00	0 Days	06/28/18
Change Order 15*	\$24,634.00	0 Days	08/20/18
Change Order 16*	\$21,584.00	0 Days	08/24/18
Change Order 17*	\$109,065.00	0 Days	09/13/18
Change Order 18	\$395,742.00	0 Days	09/28/18
Change Order 19*	\$18,351.00	0 Days	10/26/18
Change Order 20*	\$20,123.00	0 Days	11/06/18
Change Order 21*	\$82,621.00	0 Days	11/13/18
Change Order 22	\$182,792.00	0 Days	11/19/18
Change Order 23*	\$70,125.00	0 Days	12/17/18
Change Order 24*	\$15,618.00	0 Days	01/24/19
Change Order 25*	\$149,469.00	0 Days	02/19/19
Change Order 26	\$375,000.00	0 Days	03/14/19
Change Order 27*	\$24,238.00	0 Days	05/21/19
Change Order 28*	\$213,402.00	0 Days	06/17/19
Change Order 29	\$400,000.00	0 Days	07/16/19
Change Order 30*	\$24,122.00	0 Days	08/12/19
Change Order 31*	\$164,177.00	0 Days	09/16/19
Change Order 32	\$236,588.00	0 Days	09/25/19
Change Order 33*	\$200,073.00	0 Days	11/20/19
Change Order 34	\$425,000.00	0 Days	12/09/19
Change Order 35*	\$248,039.60	0 Days	02/20/20
Change Order 36	\$144,652.00	0 Days	03/31/20

Change Order 37*	\$169,097.00	0 Days	06/30/20
Change Order 38	\$226,853.00	0 Days	07/31/20
Change Order 39*	\$24,128.00	0 Days	09/09/20
Change Order 40*	(\$15,556.00)	0 Days	09/09/20
Change Order 41*	\$0.00	14 Days	10/21/20
Change Order 42*	\$69,579.00	0 Days	11/23/20
Change Order 43	\$600,000.00	120 Days	12/24/20
Change Order 44	\$308,291.00	0 Days	01/26/21
Change Order 45	<u>\$644,447.00</u>	<u>0 Days</u>	Pending
Total of Change Orders:	\$11,974,539.06	134 Days	
Adjusted Contract:	\$84,833,539.06	1594 Days	

*Approved under delegated authority

If Change Order 45 is approved, the cumulative value of all change orders to this contract will be \$11,974,539.06 or 16.4% of the original contract amount. Work on this contract is approximately 90% complete.


BUDGET/FISCAL IMPACT:

The FY21 Capital Improvement Program includes a budget of \$83,366,700 for Contract 7161. Including this change order for an amount not to exceed \$644,447, the adjusted subphase total will be \$84,833,539.06 or \$1,466,839.06 over budget. This amount will be absorbed within the five-year CIP spending cap.

MBE/WBE PARTICIPATION:

The MBE/WBE participation requirements for this project were established at 3.4% and 3.8%, respectively. The Contractor has been notified that these requirements are still expected to be met.


STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: March 17, 2021
SUBJECT: Remote Headworks Upgrade Design and Construction Administration
Arcadis U.S., Inc.
Contract 7206, Amendment 7

COMMITTEE: Wastewater Policy & Oversight

INFORMATION
 VOTE

John P. Colbert, P.E., Acting Chief Engineer
Margery J. Johnson, Program Manager
Preparer/Title


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

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to approve Amendment 7 to Contract 7206, Remote Headworks Upgrade Design and Construction Administration, with Arcadis U.S., Inc., increasing the contract amount by \$439,000, from \$10,315,831 to \$10,754,831 and extending the contract term by 6-months from October 1, 2021 to April 1, 2022.

DISCUSSION:

On June 30, 2010, the Board approved the award of Contract 7206 to Malcolm Pirnie, Inc., now Arcadis, U.S., Inc., to provide design and construction administration services for the upgrade of the three remote headworks facilities, Chelsea Creek, Columbus Park and Ward Street. These facilities provide preliminary treatment and flow control of the wastewater from MWRA's Northern Service Area before reaching the Deer Island Treatment Plant.

Following completion of Preliminary Design, staff reevaluated the design and construction sequencing for the project. Informational staff summaries were presented to the Board on January 18, 2012 and June 6, 2012 to discuss concerns with upgrading all three facilities at once, and to evaluate the best options to proceed. It was decided that Final Design for the Columbus Park and Ward Street Headworks would be performed under a separate contract, and that Contract 7206 would include Chelsea Creek Headworks only. This decision was codified through the first amendment approved by the BOD over 8 year ago.

Over these past 8 years, amendments have also been provided to perform additional evaluations, a number of which led to the incorporation of new design elements. These include the provision of flood protection, contending with on-site contaminated soil, and relocation of odor control equipment and a portion of an MWRA water main. Amendments for the inclusion of e-Construction Software Services and additional level of effort for construction administration services; including Requests for Information (RFIs) and submittals, and design associated with unforeseen conditions, have been provided through additional amendments.

Chelsea Creek Headworks was constructed in the 1960s and received its last significant upgrade in 1987. This project is a major upgrade of the entire facility and construction is expected to reach substantial completion in April 2021. Upgrades in all four process channels have been completed, including automation of the grit and screenings collection and conveyance systems, and new influent and effluent sluice gates. Ancillary systems, including a new emergency generator, fuel oil tank, and MWRA-owned transformer have been constructed. Upgrades of instrumentation and control systems, including gas monitoring systems, have been performed; and a new communications tower and equipment shelter have been constructed. Flood protection measures to protect the existing facility and new construction are nearly complete, as are upgrades to meet current code requirements, including new stair towers and a sprinkler system. Redundancy has been added to the HVAC and odor control systems; the new odor control and makeup air systems are in service, and final balancing will occur with the completion of interior masonry walls that provide separation of classified and unclassified spaces. The abatement of hazardous building materials is approximately 99% complete with spot abatements occurring through final demolition of existing equipment. Site restoration for project completion, including installation of fencing, is being completed, as weather permits. The facility's 30-Day Reliability Test is currently ongoing.

The Consultant continues to provide construction administration services to support the completion of construction. Ongoing work includes preparation of documentation required by DEP for close out of the site with respect to contaminated soils; and documentation of PCB remediation required by EPA, as well development of the long-term monitoring and maintenance implementation plan included in this proposed amendment. A major effort is ongoing with respect to development of the SCADA and Facility Handbooks, including preparation of Standard Operating Procedures and training of staff to provide them with the knowledge necessary to operate the completed facility. Final development of record drawings to accurately reflect the upgrade will be developed for MWRA's future use. Ongoing construction of ancillary systems for which the consultant is providing support includes startup of the Building Management System, activation of the fire alarm system, completion of the security system, modernization of the elevator, and final testing of the natural gas supply to the boilers. The Consultant will also provide support during the one-year warranty period to ensure that the facility meets its operational objectives and complies with warranty requirements.

This Amendment

Proposed Amendment 7 will increase the contract amount by \$439,000, from \$10,315,831 to \$10,754,831, and the contract term by 6-months from October 1, 2021 to April 1, 2022. The increase in contract term is required to align with the construction time extension approved at the November 18, 2020 Board for Contract 7161, Chelsea Creek Headworks Upgrade that was a result of an unforeseen condition requiring additional work for grit channel concrete restoration.

This amendment includes engineering support and escalation for an additional six months and for out of scope items including construction administration services, SCADA integration, and the development of a long-term PCB monitoring and maintenance implementation plan. This amendment also includes the reallocation of remaining funds in unspent Allowances and in completed tasks to finish the remaining project work.

Out of Scope Construction Administration Services

\$211,000

The number of RFIs and submittals that were originally included in the contract have been exceeded and additional funds are needed to address additional RFIs and submittals through contract completion. Specifically, there are 813 RFIs and 825 submittals included in the contract. A total of 869 RFIs and 1026 submittals were responded to under the existing budget. An additional 183 RFIs and 350 submittals are projected to be required to complete this contract.

SCADA Integration

\$147,300

Additional out of scope level of effort is necessary to complete the SCADA integration work and to support this work for an additional six months. The out of scope work includes Programmable Logic Controller (PLC) code development, application software testing, Human Machine Interface (HMI) development and programming support for the MWRA and Contractor during testing and startup. In addition, MWRA is transitioning to new PLC programming methods and new HMI graphic standards. This being the first headworks facility to be programmed using these new methods and standards has resulted in a greater level of effort than budgeted.

PLC and HMI programming efforts are performed and tested by the consultant prior to the facility equipment and systems being installed and placed into service by the contractor. The programming is based on the facility design and written control strategies. Modifications to the equipment controls or signals made during construction requires editing and retesting of the programming. Additional work included adjustment to accommodate differences in the contractor supplied Pneumatic Transport systems control panel, diverter valves, and pod level instruments; odor control and building management system interactions; odor control vibration and temperature instrumentation changes; and influent sluice gate control modification.

In order to maintain the construction schedule, SCADA testing of equipment and systems was combined into one test. The testing of contractor-installed equipment was performed simultaneously with, instead of prior to, the final remote monitoring and control testing of the equipment through the control system. This resulted in additional field time and support efforts provided by the consultant while the contractor worked to troubleshoot installed field equipment, including Channel No. 1 grit and screenings collection, pneumatic transport systems, and the new gas monitoring systems.

Sequencing to maintain facility operations and conformance with the contractor's schedule has resulted in continued adjustments to the existing and new PLC programming and HMI displays as old equipment was removed and new equipment installed. This is required to allow operations to effectively monitor and control facility equipment (pneumatic ejection, gates, screens, odor control, etc.) throughout the construction within an operating facility. Many of these adjustments to both the old and new control systems could not have been anticipated by the consultant or were the result of changes in project sequencing, resulting in additional field coordination and programming efforts. As an example, modifications to construction sequencing that resulted in only one channel's grit and screening ejection system being operational, while the adjoining channel was off line, required significant additional programming and testing.

This amendment also covers additional time the consultant will be on-site to provide SCADA support for testing and startup services as remaining equipment comes on-line, SOPs are finalized, and operation of the full facility is fine-tuned during the extended 6-month construction duration.

Administration and Management Services \$45,700

As previously discussed, this amendment includes a 6-month time extension to align with the construction time extension approved for Contract 7161. Approximately \$6,675 a month is included for project management, including management of the four subconsultants continuing to work on the project, as well as preparation of monthly reports and invoices for an additional 6-months. Escalation of \$5,642 associated with the time extension is also included.

Out of Scope Design - PCB Long Term Monitoring Plan \$35,000

Construction at Chelsea Creek Headworks includes removal of paint, which contains PCBs and encapsulation of porous surfaces from which the paint has been removed. This work has been performed in compliance with EPA’s *PCB Decontamination and Risk-Based Disposal Approval* plan for this project. EPA approval requires the development of a long-term monitoring and maintenance implementation plan to ensure the continued integrity of the encapsulation system. Development of the plan was not in the original consultant contract scope.

Staff are compiling a list of all change order items that have resulted from an error or omission and will conduct a review at the end of the project regarding responsibility of the Design Consultant, Arcadis U.S., Inc., and the potential for any cost recovery

CONTRACT SUMMARY:

	<u>AMOUNT</u>	<u>TIME</u>	<u>DATED</u>
Original Contract:	\$6,682,531	2,494 Days	07/01/10
Amendment 1:	\$0	458 Days	10/05/12
Amendment 2*:	\$249,500	0 Days	10/22/13
Amendment 3:	\$957,600	0 Days	09/17/14
Amendment 4:	\$897,200	1,160 Days	04/06/17
Amendment 5:	\$846,000	0 Days	07/23/18
Amendment 6:	\$683,000	0 Days	02/11/19
Proposed Amendment 7:	<u>\$439,000</u>	<u>183 Days</u>	Pending
Adjusted Contract Amount	\$10,754,831	4,295 Days	

*Approved under delegated authority

The percentage of amendments for this contract is 60.9% of the original contract value.

BUDGET/FISCAL IMPACT:


The FY21 CIP includes a budget of \$10,315,831 for Contract 7206. Including this amendment for \$439,000, the adjusted subphase total will be \$10,754,831 or \$439,000 over budget. This amount

will be absorbed within the five-year CIP spending cap.

MBE/WBE PARTICIPATION:

The minimum MBE and WBE participation requirements for this contract are 17.5% and 6.57%, respectively, and will be unchanged by this amendment.


STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: March 17, 2021
SUBJECT: Response to WSCAC Correspondence on Green Forestry Certification

COMMITTEE: Water Policy & Oversight

 X INFORMATION
 VOTE

Hillary Monahan, Environmental Planner
Stephen Estes-Smargiassi, Dir, Planning and Sustainability
Preparer/Title


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

RECOMMENDATION:

For information only.

DISCUSSION:

In its letter to the Board of Directors dated February 15, 2021, the Water Supply Citizens Advisory Committee (WSCAC) raised the question of whether the watershed forestry program should pursue certification under one of the “green forestry” programs. A copy of that letter is attached.

This question had been raised and discussed recently at the Water Supply Protection Trust meeting in December 2020, as well as several times in 2015 and 2016.

The watershed forestry program is designed to promote long-term protection of water quality and forest resilience to disease or natural disaster. When the Quabbin Reservoir was constructed in the 1930s, the vast majority of the watershed was in open fields, with the preexisting forest having been cleared for farm use or damaged in the 1938 hurricane. Thus, almost all of the current forested lands are of a relatively uniform age, with large stands of single species. The goal of the program is to slowly, over decades, move the forest toward a multi-species, uneven aged forest that is less likely to be damaged by invasive species or a natural disaster such as a hurricane, reducing the risk to water quality. All other objectives are treated as secondary to water quality protection.

The green forestry certification processes started in the 1990s and were intended to promote good forestry practices by certifying to consumers that their wood-based products, such as lumber, paper or furniture, came from a well-managed forest. The programs are focused on promoting biodiversity, well-functioning ecosystems and water quality, while protecting the interests of local and regional stakeholders such as indigenous peoples. Certification of a product requires documentation of all of the steps from the forest to the factory. The two primary voluntary certification programs are the Forest Stewardship Council (FSC) and the Sustainable Forestry Initiative (SFI).

The watershed forestry programs had been certified under the Forest Stewardship Council process from 1997 to 2004. The Commonwealth subsequently choose to pursue certification of all state forestry lands and was certified in 2004. Due to the number of issues raised during the recertification process in 2009, which would have required substantial changes to practices in other agencies programs, the Commonwealth choose not to complete the process. MWRA and DCR staff are not aware of any current plans by other Commonwealth agencies to move toward certification. DCR could again separately pursue certification of the watershed forestry program.

At the heart of the issue is the question of whether having an external body provide any sort of validation of the forestry program is necessary or valuable. None of the other major northeast water supply forest owners such as NYC, Portland Maine, nor Providence RI have chosen to have their watershed forestry programs certified by SFI or FSC; although Portland had been certified under the another program, the American Tree Farm System but has let it lapse.

One goal of the voluntary forestry certification programs is to create markets for sustainably produced forest products. For example, MWRA specifies FSC certified paper for the annual water quality report. The watershed forestry program is not a major producer of forest products; individual lots are small. Furthermore, DCR has not found that the certification offers a cost advantage to those bidding on parcels, although there may be a slight improvement in the ability to sell pulp wood for paper production.

Being green certified would potentially provide positive publicity benefits. When the watershed forestry was first certified in 1997, it did receive positive coverage. The certification process requires an extensive stakeholder consultation process; this could result in both positive and potentially negative publicity. DCR staff have expressed concern that the public process would be relatively one-sided, and that established environmental groups may not publicly offer their support for even well-conducted forestry operations. There are individuals and organizations whose objective is to seek to prevent or severely restrict all forestry activities, with a preference for establishing “forever wild” forest preserves. While some of the interest is based on philosophical or aesthetic concerns, there are some groups whose interest arises from concerns that while the use of forest products for energy *may* be greenhouse gas neutral over the long term, in the short to medium term, (perhaps several decades) more greenhouse gases are released than the regenerating forest will be able to recapture. None of the green certification processes deal directly with this concern in their certification process, as they are all designed to allow and promote forestry. In any case, the DCR watershed forestry program is relatively small in proportion to their holdings.

The certification processes require substantial documentation from planning, through implementation to tracking and review, with public stakeholder engagement at multiple points.

DCR’s forestry program is well documented in its Land Management Plan (2017), which is updated periodically with an opportunity during that process for public input. The entire watershed forestry program was the subject of an intensive independent scientific review in 2012 by the Science and Technical Advisory Council (STAC¹) with extensive public comment opportunities.

¹ The STAC was originally chartered in the 1990ss by DCR as the Quabbin Science and Technical Advisory Committee, and was later tasked in 2010 to assist in overseeing forestry programs by the Secretary of EEA. It includes forest, wildlife, and natural resource researchers and managers from several University of Massachusetts Amherst departments, Harvard Forest, the USDA Forest Service, Mount Holyoke College, Amherst College, the Institute of Ecosystem Studies, US Geological Survey, Massachusetts Audubon Society, the New England Small Farms Institute, the MA Natural Heritage and Endangered Species Program, Hampshire College, and several state agencies.

DCR used the recommendations of the STAC report in the development of the current Land Management Plan.

The FSC and SFI both have detailed certification standards and documentation requirements. SFI has 101 separate specific criteria for which organizations must document compliance; FSC has 57 slightly broader ones. These criteria are summarized in the attachment. The DCR watershed forestry program likely meets many of the substantive requirements. However, DCR's 2017 Land Management Plan was written to be responsive to the STAC report recommendations and to address water quality concerns. To meet certification requirements, it would need to be re-written or additional documentation developed. Responses for the issues identified in the 2009 FSC renewal review (issues that related to the watershed program rather than other state agencies) would also need to be developed. DCR has indicated that this may require a significant level of effort.

A review of SFI and FSC criteria indicate that the many items are only indirectly related to physical forestry management practices or water quality. Many SFI indicators relate to other societal goods, such as natural heritage data, forest tree biotechnology research, and wood producer training courses. The *SFI 2015-2019 Forest Management Standards and Rules*² promote sustainable forestry practices through a set of 13 Principles, 15 Objectives, and 37 Performance Measures. Of the total 101 criteria, around 30 items relate to *physical* forestry management practices. Similarly, the *FSC Principles and Criteria for Forest Stewardship*³ is comprised of 10 Principles and 57 Criteria that focus heavily on socially beneficial management practices. About half relate to actual physical forestry practices. FSC is in the process of revising its criteria and standards again with the next release expected in 2022. Should green certification be pursued, the forestry program would need to be regularly updated to continue to meet the certification requirements.

DCR's 2017 Land Management Plan satisfies MWRA's interest in assuring that DCR's forest management programs are building a resilient forest and protecting reservoir water quality in both the short term and the longer term. Green forestry certification while not necessary, could provide additional public evidence of the quality of the DCR program.

At MWRA's request, DCR is in the process of producing a comparison of current practices with the criteria of the two green forestry certification programs, including review of issues raised during the 2009 certification. MWRA staff anticipate that DCR will complete this review by June 2021. Once that review is complete, MWRA staff will evaluate it and return to the Board with any appropriate recommendations regarding green certification.

ATTACHMENTS:

Attachment A - Summary of SFI and FSC Certification Criteria
Attachment B – WSCAC Letter of February 15, 2021

² https://forests.org/wp-content/uploads/2015_2019StandardsandRules_web_Feb_2017.pdf

³ <https://fsc.org/en/document-centre/documents/retrieve/16c5cce0-ccc4-434d-953e-a27c6750fbad?mode=view#viewer.action=download>

Attachment A - Summary of FSC and SFI Certification Criteria

Forest Stewardship Council (FSC) Criteria

- ❖ Workers' Rights and Employment Conditions
 - Six of the 57 criteria relate to promoting gender equality in employment practices, training opportunities, awarding of contracts, processes of engagement, and management activities.
- ❖ Indigenous Peoples' Rights
 - Six of the 57 criteria relate to identifying and upholding Indigenous Peoples' legal and customary rights of ownership, use and management of land, territories and resources affected by management activities.
- ❖ Community Relations
 - Eight criteria relate specifically to enhancing the social and economic wellbeing of local communities, including identifying sites which are of special cultural, ecological, economic, religious, or spiritual significance, and for which these local communities hold legal or customary rights.
- ❖ Environmental Values and Impacts
 - Ten of the 57 criteria relate to protecting or restoring natural water courses, water bodies, riparian zones, and their connectivity, avoiding negative impacts on water quality and quantity, and mitigating and remedying those that occur.
- ❖ Management Planning
 - Six criteria relate to proactively and transparently engaging affected stakeholders in management planning and monitoring processes, and engage interested stakeholders on request.
- ❖ Monitoring and Assessment
 - Five criteria relate to implementation of a tracking and tracing system proportionate to scale, intensity and risk of its management activities, for demonstrating the source and volume in proportion to projected output for each year, of all products that are marketed as FSC certified.
- ❖ High Conservation Values
 - Four criteria require engagement with affected stakeholders to assess and record the presence and status of species diversity, landscape-level ecosystems and mosaics, ecosystems and habitats, critical ecosystem services, community needs, and cultural values.
- ❖ Implementation of Management Activities
 - Twelve criteria require that the organization manage infrastructural development, transport activities and silviculture so that water resources and soils are protected, and disturbance of and damage to rare and threatened species, habitats, ecosystems, and landscape values are prevented, mitigated and/or repaired.

Source: <https://fsc.org/en/document-centre/documents/retrieve/16c5cce0-ccc4-434d-953e-a27c6750fbad?mode=view#viewer.action=download>

Sustainable Forestry Initiative (SFI) Criteria

- ❖ Sustainable Forestry
 - Thirty of the 101 criteria relate to promptly reforesting after final harvest as per documented reforestation plans, including designation of all harvest areas for either natural, planted or direct seeded regeneration, and prompt reforestation.
- ❖ Protection of Water Resources
 - Eight of the 101 criteria relate to implementation of water, wetland and riparian protection measures based on soil type, terrain, vegetation, ecological function, harvesting system, state best management practices, and provincial guidelines..
- ❖ Protection of Biological Diversity
 - Fifteen of the criteria, require that Program Participants document diversity of forest cover types and age or size classes at the individual ownership or forest tenure level, and where credible data are available, at the landscape scale.
- ❖ Aesthetics and Recreation
 - Eight of the 101 criteria relate to the impact of harvesting on visual quality; average size of clearcut harvest areas does not exceed 120 acres.
- ❖ Protection of Special Sites
 - Two criteria require that program participants use information from existing natural heritage data, expert advice, or stakeholder consultation in identifying or selecting special sites for protection.
- ❖ Responsible *Fiber Sourcing* Practices
 - One criterion requires exploration of markets for underutilized species and low-grade wood and alternative markets (e.g. bioenergy markets).
- ❖ Recognize and Respect Indigenous Peoples' Rights
 - Four criteria require communication with and response to local Indigenous Peoples with respect to sustainable forest management practices on their private lands.
- ❖ Community Involvement and Social Responsibility
 - Six criteria require participation in efforts to support or promote conservation of managed forests through voluntary market-based incentive programs.
- ❖ Communications and Public Reporting
 - Four criteria require increased transparency through annual reporting on performance by way of the *SFI Forest Management Standard*. The summary audit report must be posted on the *SFI Inc.* website for public review.

Source: https://forests.org/wp-content/uploads/2015_2019StandardsandRules_web_Feb_2017.pdf



**WATER SUPPLY CITIZENS
ADVISORY COMMITTEE**
to the Mass. Water Resources Authority

485 Ware Road
Belchertown MA 01007
(413) 213-0454
fax: (413) 213-0537
email: info@wscac.org

February 15, 2021

MWRA Board of Directors
100 First Ave.
Charlestown Navy Yard
Boston, MA 02129

Subject: Recertification of DCR Watersheds

Dear Chair Theoharides and Board Members,

The members of Water Supply Citizens Advisory Committee (WSCAC) would like to introduce the case for recertifying, through green certification, the DCR-Division of Water Supply Protection's Quabbin, Ware River and Wachusett watersheds. Forestry practices in the watersheds are not well supported by the public. There are reasons to question whether they closely follow DCR's Land Management Plan, and portions of the December 2012 forest management report of recommendations by the Science and Technical Advisory Committee (STAC) have yet to be done.

WSCAC recommends recertification as the most direct, cost-effective way to rebuild public trust, address reputational risk, and acknowledge the need for a broader technical perspective on forest management in the DCR watersheds.

At the December 2020 Water Supply Protection Trust meeting, WSCAC presented the benefits of green certification:

- Recertification of DCR's watershed lands adds credibility and accountability to the requirement to conduct forest management and avoid costly filtration.
- Recertification can revitalize the knowledge base of watershed forest management by providing direct access to research and technical support from a wide range of forestry professionals.
- Recertification strengthens public support, knowledge and understanding of DCR's forest management.

DCR's Division of Water Supply Protection is against recertification for the following reasons stated at the December Trust meeting:

- There is not any financial gain to green certification.
- The process is not a constructive use of staff time.
- The cost of recertifying is not worth the effort.
- Recertifying will not encourage public support.

DCR's management of the watershed forests is not a revenue generating program. The goal of the program is to manage for water quality by maintaining a diverse and resilient forest buffer to avoid filtration.

Current and retired DCR foresters have supported the previous green certification process because of the ability to collaborate with other forestry professionals. DCR's current reliance on historical practices and management plans may not address the conditions occurring in forests today as the climate warms.

The cost of recertification is well within DCR's current budget as paid for by the MWRA ratepayers via the Trust, and support has been voiced by the MWRA Advisory Board through its participation on the Water Supply Protection Trust. The Trust has discussed recertification at recent meetings but has not yet voted on whether to support the process of recertifying.

DCR has stated that green certification will not generate any public support of its forestry management practices. The question is, given that DCR initiates very little public dialogue, and has not followed the recommendations of the STAC report which strongly request public engagement, how does DCR know what the public will support? It is clear that there are public groups opposed to state forestry practices and have voiced support for more oversight in how public lands are managed. H. 4415-An Act to Study Forest Management Practices is proposed legislation by Rep. Whipps which calls for a new commission to study forest practices on all state lands. The Attorney General's office is also interested in forestry practices as noted in the September 2020 webinar, The Critical Role of Forests in Protecting Climate and Public Health.

The best forestry management practices are based on professional standards and scientific data. The inclusion of transparency and accountability through certification can generate public support for these practices. WSCAC has supported the forestry program but on the condition that moving forward, watershed lands will be recertified.

In summary, WSCAC requests the following:

- A vote of support by the MWRA Board of Directors to recertify DCR-DWSP watershed lands to promote transparency and accountability in forestry management, and to be funded within the DCR Watershed Division budget.

On behalf of the WSCAC members, thank you for your consideration of this request.

Gerald Eves, Chair

Whitney Beals, Executive Committee

Lexi Dewey, Executive Director

Cc: Fred Laskey, Executive Director, MWRA

Joseph Favaloro, Executive Director, MWRA Advisory Board

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director *Frederick A. Laskey*
DATE: March 17, 2021
SUBJECT: Local Water System Assistance Program Annual Update

COMMITTEE: Water Policy & Oversight

INFORMATION
 VOTE

Carolyn M. Fiore, Deputy Chief Operating Officer
Stephen Estes-Smargiassi, Director, Planning and Sustainability
Carl H. Leone, P.E., Senior Program Manager, Planning
David A. Granados, Project Manager, Planning
Preparer/Title

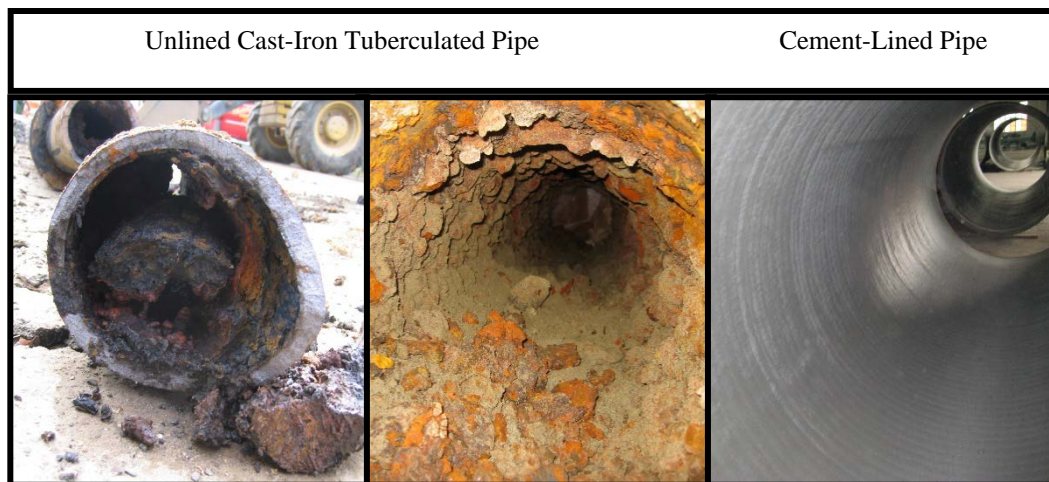
David W. Coppes
David W. Coppes, P.E.
Chief Operating Officer

RECOMMENDATION:

For information only.

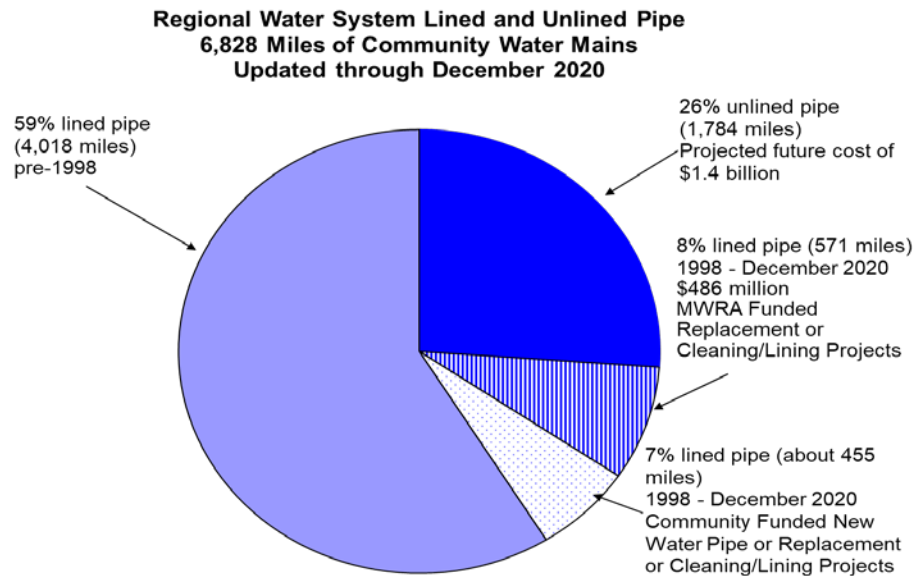
DISCUSSION:

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 customer's homes.



Prior to 1998, 4,018 miles (59%) of the 6,828-mile regional distribution system was lined water pipe. Since 1998, MWRA's community financial assistance programs (including the \$30 million

pilot program in 1998/99) have invested \$486 million in local water distribution systems and resulted in the replacement or cleaning and lining of 571 miles of water mains. Additional community-only funded rehabilitation or new pipeline projects have added 455 miles of lined water mains. Approximately 1,784 miles (26%) of locally-owned distribution systems remain unlined, representing a regional need of about \$1.4 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. Most recently Ashland and Burlington received Local Water System Assistance Program loan allocations when they were approved as partially supplied member communities. Through December 2020, \$456 million in ten-year interest-free loans have been distributed to member communities to finance 478 projects that will help maintain high water quality in local distribution systems. Of the 478 total projects, 416 have been completed and 62 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 \$308 million to date. Forty-three of the 47 eligible member water communities¹ have participated in the Program. Two additional water loans totaling \$1.8 million are scheduled for the February/March 2021 distribution cycle.

¹ 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 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 emergency only) 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.

The photos below are typical examples of local water system rehabilitation construction work funded through the MWRA Local Water System Assistance 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 and 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 2020, \$181.7 million in Phase 2 funds have been distributed and \$28.3 million remain to be distributed. Twenty-nine 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 and 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 2020, \$51.7 million in Phase 3 funds have been distributed and \$241.6 million remain to be distributed. (See Attachment 2 - Allocation and Fund Utilization by Community.)

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. Through December 2020, MWRA has distributed a total of \$17.6 million in lead loans (22 separate distributions) to eleven communities:



- Quincy: \$1.5 million in FY17;
- Winchester: \$500,000 in FY17; \$500,000 in FY18; \$600,000 in FY20; \$600,000 in FY21;
- Newton: \$4.0 million in FY17;
- Marlborough: \$1.0 million in FY18; \$1.0 million in FY19; \$1.0 million in FY20;
- Revere: \$195,000 in FY18;
- Winthrop: \$284,000 in FY18; \$487,850 in FY19; \$690,000 in FY20;
- Needham: \$1.0 million in FY18;
- Everett: \$1.0 million in FY19; \$1.0 million in FY20; \$500,000 in FY20;
- Chelsea: \$100,000 in FY19; \$300,000 in FY20; \$300,000 in FY21;
- Somerville: \$900,000 in FY20; and,
- Weston: \$160,000 in FY20.

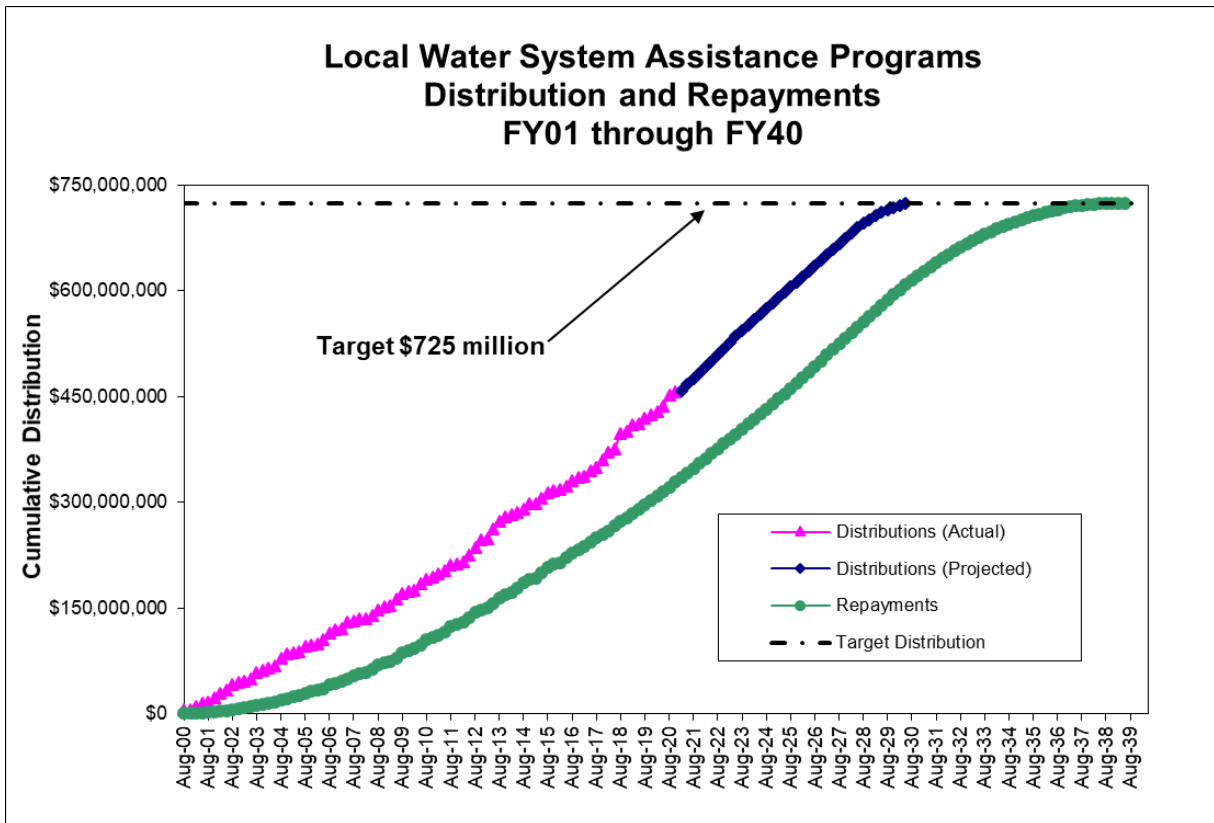
One additional Lead Service Line Replacement Loan is scheduled for distribution during the February/March 2021 distribution cycle - \$750,000 for Winthrop's Phase 4 project.

BUDGET/FISCAL IMPACT:

The FY21 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 over-spending or under-spending (versus budget) 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 its 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 2020, \$456 million in water project loans have been distributed and community loan repayments are \$305 million. An additional \$18 million in lead service line project loans have been distributed and lead project loan repayments are \$3 million. As community loans are repaid, the funds are deposited into MWRA's construction fund. The FY21 CEB budget includes \$5.7 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.

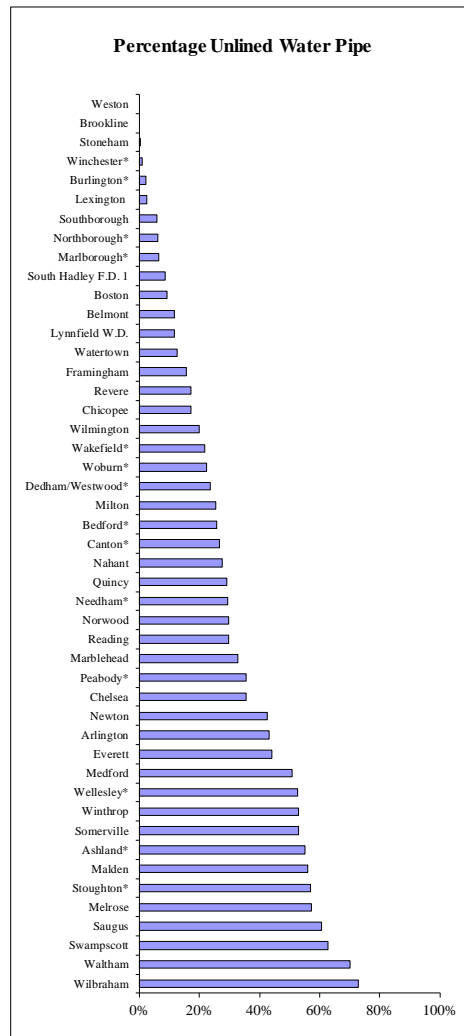
ATTACHMENTS:

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

ATTACHMENT 1
MWRA LOCAL WATER SYSTEM ASSISTANCE PROGRAM
LINED AND UNLINED PIPE BY COMMUNITY
THROUGH DECEMBER 2020

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	919	92	9%
Brookline	140	140	0	0%
Burlington*	135	132	3	2%
Canton*	128	94	34	27%
Chelsea	59	38	21	36%
Chicopee	269	223	46	17%
Dedham/Westwood*	203	155	48	24%
Everett	68	38	30	44%
Framingham	276	233	43	16%
Lexington	165	161	4	2%
Lynnfield W.D.	29	26	3	12%
Malden	121	53	68	56%
Marblehead	97	65	32	33%
Marlborough*	180	169	11	6%
Medford	144	71	73	51%
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	84	35	30%
Peabody*	208	134	74	36%
Quincy	240	170	70	29%
Reading	114	80	34	30%
Revere	107	89	18	17%
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	150	45	105	70%
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	147	43	22%
TOTAL	6,828	5,044	1,784	26%




* Partially Served Communities

**ATTACHMENT 2
MWRA LOCAL WATER SYSTEM ASSISTANCE PROGRAM
ALLOCATION AND FUND UTILIZATION BY COMMUNITY
THROUGH DECEMBER 2020**

Community	Community Total Phase 2 Allocation	Phase 2 Funds Distributed thru December 2020	Total Remaining Phase 2 Funds	Community Total Phase 3 Allocation	Community Phase 3 Annual Allocation	Phase 3 Allocation To Date (Year 4)	Phase 3 Funds Distributed thru December 2020	Phase 3 Funds Currently Available	Total Phase 2 and 3 Funds Available
Arlington	\$6,225,000	\$5,700,000	\$525,000	\$8,687,000	\$868,700	\$3,474,800	\$0	\$3,474,800	\$3,999,800
Ashland*	\$0	\$0	\$0	\$19,400	\$500,000	\$500,000	\$0	\$500,000	\$500,000
Bedford*	\$2,418,000	\$2,418,000	\$0	\$3,649,000	\$500,000	\$2,000,000	\$0	\$2,000,000	\$2,000,000
Belmont	\$3,477,000	\$3,477,000	\$0	\$3,852,000	\$500,000	\$2,000,000	\$2,000,000	\$0	\$0
Boston	\$38,754,000	\$38,754,000	\$0	\$52,787,000	\$5,278,700	\$21,114,800	\$13,894,230	\$7,220,570	\$7,220,570
Brookline	\$3,426,000	\$660,000	\$2,766,000	\$4,585,000	\$500,000	\$2,000,000	\$0	\$2,000,000	\$4,766,000
Burlington**	\$0	\$0	\$0	\$82,740	\$500,000	\$500,000	\$0	\$500,000	\$500,000
Canton*	\$3,216,000	\$3,216,000	\$0	\$2,971,000	\$500,000	\$2,000,000	\$1,384,000	\$616,000	\$616,000
Chelsea	\$3,814,000	\$3,814,000	\$0	\$5,039,000	\$503,900	\$2,015,600	\$1,511,700	\$503,900	\$503,900
Deerham/Westwood*	\$503,000	\$503,000	\$0	\$849,000	\$500,000	\$849,000	\$0	\$849,000	\$849,000
Everett	\$4,672,000	\$4,672,000	\$0	\$6,298,000	\$629,800	\$2,519,200	\$990,300	\$1,528,900	\$1,528,900
Frammingham	\$7,357,000	\$7,357,000	\$0	\$9,003,000	\$900,300	\$3,601,200	\$2,700,900	\$900,300	\$900,300
Lexington	\$3,024,000	\$1,145,015	\$1,878,985	\$3,777,000	\$500,000	\$2,000,000	\$0	\$2,000,000	\$3,878,985
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	\$4,242,000	\$0	\$4,242,000	\$4,779,200
Marblehead	\$4,237,000	\$2,200,000	\$2,037,000	\$5,112,000	\$511,200	\$2,044,800	\$0	\$2,044,800	\$4,081,800
Marborough*	\$1,917,000	\$1,283,800	\$633,200	\$3,512,000	\$500,000	\$2,000,000	\$0	\$2,000,000	\$2,633,200
Medford	\$6,959,000	\$2,075,000	\$4,884,000	\$10,800,000	\$1,080,000	\$4,320,000	\$0	\$4,320,000	\$9,204,000
Melrose	\$3,988,000	\$3,988,000	\$0	\$6,865,000	\$686,500	\$2,746,000	\$2,746,000	\$0	\$0
Milton	\$4,123,000	\$4,123,000	\$0	\$5,967,000	\$596,700	\$2,386,800	\$641,000	\$1,745,800	\$1,745,800
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	\$12,241,800	\$1,360,200	\$20,837,000	\$2,083,700	\$8,334,800	\$0	\$8,334,800	\$9,695,000
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	\$4,089,000	\$306,000	\$6,296,000	\$629,600	\$2,518,400	\$2,518,400	\$0	\$0
Peabody*	\$1,089,000	\$1,089,000	\$0	\$2,756,000	N/A +	\$2,756,000	\$2,756,000	\$0	\$0
Quincy**	\$10,505,000	\$10,505,000	\$0	\$14,252,000	\$1,425,200	\$8,551,200	\$8,551,200	\$0	\$0
Reading	\$4,146,000	\$4,146,000	\$0	\$5,073,000	\$507,300	\$2,029,200	\$0	\$2,029,200	\$2,029,200
Revere	\$5,034,000	\$5,034,000	\$0	\$5,315,000	\$531,500	\$2,126,000	\$1,016,000	\$1,110,000	\$1,110,000
Saugus	\$6,621,000	\$6,621,000	\$0	\$9,688,000	\$968,800	\$3,875,200	\$488,994	\$3,386,206	\$3,386,206
Somerville	\$7,419,000	\$5,898,234	\$1,520,766	\$10,791,000	\$1,079,100	\$4,316,400	\$0	\$4,316,400	\$5,837,166
Southborough	\$1,512,000	\$0	\$1,512,000	\$1,920,000	\$500,000	\$1,920,000	\$0	\$1,920,000	\$3,432,000
Stoneham	\$2,339,000	\$2,339,000	\$0	\$2,742,000	\$500,000	\$2,000,000	\$1,800,000	\$200,000	\$200,000
Stoughton*	\$2,506,000	\$2,506,000	\$0	\$3,547,000	\$500,000	\$2,000,000	\$0	\$2,000,000	\$2,000,000
Swarmscott	\$3,755,000	\$3,755,000	\$0	\$5,276,000	\$527,600	\$2,110,400	\$1,294,468	\$815,932	\$815,932
Wakefield*	\$2,325,000	\$2,325,000	\$0	\$3,356,000	\$500,000	\$2,000,000	\$1,000,000	\$1,000,000	\$1,000,000
Waltham	\$10,293,000	\$5,520,201	\$4,772,799	\$14,904,000	\$1,490,400	\$5,961,600	\$0	\$5,961,600	\$10,734,399
Watertown	\$2,978,000	\$2,978,000	\$0	\$3,745,000	\$500,000	\$2,000,000	\$1,000,000	\$1,000,000	\$1,000,000
Wellesley*	\$2,350,000	\$241,569	\$2,108,431	\$3,268,000	\$500,000	\$2,000,000	\$0	\$2,000,000	\$4,108,431
Weston	\$1,625,000	\$1,625,000	\$0	\$2,295,000	\$500,000	\$2,000,000	\$437,997	\$1,562,003	\$1,562,003
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	\$0	\$0	\$0
Woburn*	\$2,591,000	\$2,591,000	\$0	\$3,905,000	\$500,000	\$2,000,000	\$0	\$2,000,000	\$2,000,000
SUBTOTAL	\$200,000,000	\$175,016,372	\$24,983,628	\$279,346,800	\$32,859,500	\$134,489,400	\$51,187,454	\$83,301,946	\$108,285,574
Chicopee	\$7,153,000	\$5,183,400	\$1,969,600	\$9,774,000	\$977,400	\$3,909,600	\$0	\$3,909,600	\$5,879,200
South Hadley F.D. I	\$1,538,000	\$1,538,000	\$0	\$2,026,000	\$500,000	\$2,000,000	\$500,000	\$1,500,000	\$1,500,000
Wilbraham	\$1,309,000	\$0	\$1,309,000	\$2,200,000	\$500,000	\$2,000,000	\$0	\$2,000,000	\$3,309,000
SUBTOTAL	\$10,000,000	\$6,721,400	\$3,278,600	\$14,000,000	\$1,977,400	\$7,909,600	\$500,000	\$7,409,600	\$10,688,200
TOTAL	\$210,000,000	\$181,737,772	\$28,262,228	\$293,346,800	\$34,836,900	\$142,399,000	\$51,687,454	\$90,711,546	\$118,973,774

* 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

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: March 17, 2021
SUBJECT: Quabbin Maintenance Building Design, Construction Administration and Resident Engineering Services
The Robinson Green Beretta Corporation
Contract 7677


COMMITTEE: Water Policy & Oversight

Douglas J. Rice, Director of Procurement
John P. Colbert P.E., Chief Engineer
Maureen K. McAvoy, P.E., Program Manager
Preparer/Title

 INFORMATION
 X VOTE


Michele S. Gillen

Director of Administration


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

This contract was on the agenda for the Board of Director's November 18, 2020 meeting and was postponed, pending a review of water supply protection efforts carried out by the Department of Conservation and Recreation. Staff now recommend award of this contract. The selected consultant was contacted recently and has agreed to hold the original negotiated price. The project, design and construction support services for a new Quabbin maintenance building for water supply protection staff will be fully-funded by the MWRA.

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to award Contract 7677, Quabbin Maintenance Building Design, Construction Administration and Resident Engineering Services, to the first ranked firm, The Robinson Green Beretta Corporation, and to authorize the Executive Director, on behalf of the Authority, to execute said contract in an amount not to exceed \$1,318,278 for a contract term of 43 months from the Notice to Proceed.

DISCUSSION:

The Department of Conservation and Recreation (DCR) has proposed constructing a new Maintenance Building at Quabbin Reservoir to replace an existing facility that is currently housed in the West Garage at the main Quabbin Administration Building complex. After investigating the current maintenance facility, staff determined that considerable investment would be required to stabilize deteriorating conditions and to repair the structural deficiencies. However, investments to repair the existing facility would not be enough to overcome the space constraints, operational limitations and building shortcomings that severely limit the effectiveness of the DCR fleet maintenance program. A rendering of the proposed maintenance building is included in Figure 1.



Figure 1: Maintenance Building Conceptual Design

A new maintenance facility is intended to provide approximately 11,000 square feet of gross floor area to house and support vehicle fleet maintenance staff and equipment. The new space will accommodate oversized vehicles and heavy equipment, include provisions for a vehicle wash bay and offer the space necessary to support staff and equipment needs. Moreover, the facility will offer working conditions that improve safety, efficiency and operational capability.

Consistent with a Memorandum of Understanding between DCR and the MWRA regarding the protection, construction, operation, maintenance and improvement of water supply resources, facilities and infrastructure within the watershed and waterworks system, MWRA has agreed to procure and manage both the design and construction services for the Maintenance Building on behalf of DCR.

Procurement Process

The Massachusetts Designer Selection Board (DSB) is responsible for the qualification-based selection of designers for state building projects undertaken by public agencies and as such, DCR is required to utilize the DSB process.¹ The DSB utilizes an advertised competitive process to solicit applications from designers to perform the design services requested. In response to the advertisement, designers submit applications to the DSB and the DSB screens applications for completeness and forwards copies to the public agency. The DSB then ranks finalists based on pre-determined criteria, at which point the public agency can begin negotiations with the first ranked firm.

On May 6, 2020, the DSB issued a Public Notice of Designer Selection for this project. On June 10, 2020, the DSB received seven applications for this project, from the following designers: 1) Clark & Green, Inc.; 2) DiGiorgio Associates, Inc.; 3) edm Services, Inc.; 4) Hill Engineers, Architects, Planners, Inc.; 5) The Robinson Green Beretta Corporation; 6) STV Incorporated; and 7) Weston & Sampson Engineers, Inc. On July 8, 2020, the DSB reviewed the seven applications and determined that two of the applicants failed to meet the required personnel requirements set forth in the public notice. The DSB members then proceeded to review the remaining applications with input from MWRA and DCR. Subsequently, in accordance with the provisions of Massachusetts General Laws, Chapter 7C, Section 49, the DSB voted to select the following three ranked finalists for this project:

1. The Robinson Green Beretta Corporation
2. Weston & Sampson Engineers, Inc.
3. DiGiorgio Associates, Inc.

¹ MWRA's projects typically fall outside of the jurisdiction of the DSB because MWRA's building projects are generally "appurtenant" to and required to be constructed as an "integral" part of the development of its water and sewer system. These projects are statutorily exempt from the DSB process. Since the DCR Maintenance Building is not "appurtenant" to and required to be constructed as an "integral" part of the development of the MWRA's water and sewer system, MWRA, on behalf of DCR, is required by statute to seek the assistance of the DSB to select the designer for this project.

In accordance with Massachusetts General Laws, Chapter 7C, Section 50, MWRA staff reviewed The Robinson Green Beretta Corporation (RGB) proposal and then commenced cost negotiations with the first ranked finalist. RGB, as required pursuant to the public notice, provided a detailed cost proposal to complete the design, construction administration, and resident engineering services. MWRA staff reviewed RGB's cost proposal, which included an in-depth review of scope and RGB's proposed level of effort of its staff and sub-consultants to perform the required services for this project. The negotiations included discussions on the required level of effort to complete the design, construction, and schedule based upon MWRA and RGB's past experience with similar maintenance buildings. As a result, several scope items were changed, including the elimination of the Resident Inspector, reduction of the Resident Engineering hours by DCR staff support, reduction in the number of design submittals and the shortening of the design duration from 15 to 10 months. These negotiations resulted in a reduction of over \$865,000 from the original cost proposal.

The Engineer's estimate for this project is \$1,000,000. This estimate is based on a 2018 cost estimate prepared by the Kehes Group Ltd. for DCR. Since the estimate was prepared, several scope items have been added to the project, including the demolition of two small buildings and the abatement of hazardous materials in these buildings. The 18-month construction duration for this project is based on a worst-case scenario assuming no work being completed during the severe winter weather. The consultant has estimated that the construction may be completed in 12-16 months, based upon previous projects of similar buildings. If completed in less than 18 months, additional cost savings may be realized in construction engineering services. Staff have determined that RGB's cost proposal contains the level of effort necessary to perform the required services under this contract. Staff have further determined that the cost proposal is reasonable and complete.


BUDGET/FISCAL IMPACT:

The FY21 CIP includes a budget of \$1,000,000 for Contract 7677. The award amount is \$1,318,278, or \$318,278 over budget. This amount will be absorbed within the five-year CIP spending cap.

MBE/WBE PARTICIPATION:

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


STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: March 17, 2021
SUBJECT: Commonwealth Avenue Pumping Station Improvements
WES Construction Corp.
Contract 7524, Change Order 10

COMMITTEE: Water Policy and Oversight

INFORMATION
 VOTE

Corinne M. Barrett, Director, Construction
Eleanor Duffy, P.E., Assistant Director, Construction
Preparer/Title


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

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to approve Change Order 10 to Contract 7524, Commonwealth Avenue Pumping Station Improvements, with WES Construction Corp. for a not to exceed amount of \$230,246.92, increasing the contract amount from \$7,669,408.18 to \$7,899,655.10, with no increase in contract term.

Further, to authorize the Executive Director to approve additional change orders as may be needed to Contract 7524 in an amount not to exceed the aggregate of \$250,000, in accordance with the Management Policies and Procedures of the Board of Directors.

DISCUSSION:

The Commonwealth Avenue Pumping Station supplies water to 85 percent of the City of Newton. The pumping station is supplied through a single connection to Shaft 6 of MWRA's High Service City Tunnel and can serve the remaining 15 percent in an emergency. The pumping station is supplied through a single connection to Shaft 6 of MWRA's City Tunnel.

The Commonwealth Avenue Pumping Station was originally placed into service in 1953 and has received a variety of improvements over the years, including a renovation completed in 1999. That renovation upgraded the capacity and reliability of the pumping station and included the construction of the West Building with two additional pumps, a 900kW diesel generator, and rehabilitation of the East Building's piping, valves and two pumps.

This construction contract includes the installation of a new 24-inch diameter suction pipe to the East Building from the Weston Aqueduct Supply Main Low Service 48-inch (WASM 1) and 60-inch (WASM 2) pipes located in the Carriage Lane of Commonwealth Avenue across the street from the pumping station, and the installation of two new pumps (one replacement and one new) capable of pumping from the low service grade lines to provide water supply redundancy. This redundancy will allow the pumping station to operate in the event that Shaft 6 of the City Tunnel

cannot provide suction to the pumping station. The project also includes new Supervisory Control and Data Acquisition (SCADA) instrumentation and controls, new heating, ventilation and air conditioning equipment to replace older equipment that has a history of maintenance issues, painting of the suction and discharge piping, and new suspended ceilings in the office/control rooms and bathrooms.

This Change Order

Change Order 10 consists of the following seven items:

Reimbursement for COVID-19 Costs

Not to Exceed \$150,000.00

The Governor issued an Essential Services Order on March 23, 2020, assuring continued operation of essential services in the Commonwealth, closing certain workspaces, and prohibiting gatherings of more than ten people. The Order designated a range of critical services and functions as “COVID-19 Essential Services” to ensure continued operation, to protect the health and welfare of the Commonwealth, support community resilience, and maintain continuity of response efforts. The Order included water and sewer public works construction projects as essential services and the construction workers who support the construction, operation, inspection and maintenance of such construction sites and projects as essential workers.

The Commonwealth’s “COVID-19 Guidelines and Procedures for All Construction Sites and Workers at All Public Works” established COVID-19 related safety requirements, which allow work to continue on MWRA construction projects. These Guidelines required the Contractor to hold a safety stand down meeting at the site with all construction personnel, establish a site specific COVID Officer and employ other protocols. This change order reimburses the Contractor for compensable costs associated with complying with these required guidelines and procedures.

This change has been identified by staff as an unforeseen condition. While MWRA staff and the Consultant have agreed to an amount not to exceed \$150,000, staff anticipate execution of this change order unilaterally as the work is ongoing and the final costs are unknown at this time.

Increase Police Detail Services

Not to Exceed \$40,000.00

The contract includes an allowance for Police Detail Services in the amount of \$30,000. This allowance amount was significantly overrun during pipeline installation and connection work in Carriage Lane. Although Carriage Lane was closed for the work on the WASM pipeline connections, a police detail was nonetheless required anytime the Contractor worked in Carriage Lane, the median area or Commonwealth Avenue. Change Order 3 increased this allowance amount by \$40,000. At the present time, \$90,191 has been invoiced for police detail services provided, resulting in a current shortfall amount of \$20,191. Future work requiring police detail services includes final paving activities on Carriage Lane, sidewalk restoration and landscaping on the median, Carriage Lane and Commonwealth Avenue. As a result, this line item must be increased.



Lane Restriction and Traffic Control on Commonwealth Avenue

This change has been identified as an overrun. MWRA staff, the Consultant, and the Contractor have agreed to an amount not to exceed \$40,000 for this additional work with no increase in contract term. The Contractor proceeded with this work at its own risk in order to proceed with the remainder of the contract work.

Dehumidifier Duct and Louver Modifications

\$12,952.69



New Dehumidification Ductwork

The contract work includes furnishing and installing a new dehumidifier in the basement of the East Building Pumping Station, with new exhaust ductwork from the basement through the operating floor level into the Electrical Room and exhaust outside through a new 20-inch by 60-inch louver. The new louver and ductwork penetration through the floor is in direct conflict with three existing conduits and an existing transformer. To avoid these conflicts, it was determined that the exhaust duct should be revised and the louver relocated to a lower elevation on the same wall. However, per code, an aluminum jacket must now be furnished and installed on the ductwork given the height is less than eight feet above finished floor.

This change has been identified as a design error. MWRA staff, the Consultant and the Contractor have agreed to a lump sum amount of \$12,952.69 for this additional work with no increase in contract term. The Contractor proceeded with this work at its own risk in order to proceed with the remainder of the contract work.

Conduit and Wiring Repairs from Coring

\$10,274.67

The contract documents include new penetrations achieved by coring or cutting existing concrete walls and floor slabs for new HVAC and electrical work. Ground penetrating radar investigation requirements and procedures for coring, cutting and patching concrete walls and floor slabs were not included in the contract bid documents. This omission was discovered after the Contractor cored through an embedded 3/4-inch conduit and power wiring to the existing unit heaters and receptacles in the West Pumping Station building. The contract drawings do not indicate the locations of embedded conduits and there was no indication the conduit and wiring were in this

location. Change Order 3 added the requirement to perform ground penetrating radar survey to identify potential buried obstructions before performing coring or cutting activities.

Although this is an important tool in identifying and preventing damage to unknown pipes, conduits and other obstructions buried in the concrete walls and slabs, it is not a perfect technology. The Contractor completed the survey prior to performing any additional coring. Despite this, the Contractor encountered and damaged two additional embedded power and control conduits. Replacement of the damaged conduits and wiring was required to restore equipment operation for the three incidents.

This change has been identified as an unforeseen condition. MWRA staff, the Consultant and the Contractor have agreed to a lump sum amount of \$10,274.67 for this additional work with no increase in contract term. The Contractor proceeded with this work at its own risk in order to proceed with the remainder of the work.

Furnish and Install Aluminum Windows \$8,546.74

The contract work includes demolition of existing dampers and ductwork in the West Pumping Station Electrical Room. However, the contract scope of work omitted the demolition of the louvers on the exterior wall. A note on the HVAC Demolition Drawings specifically states, "Louvers shall be retained unless specifically indicated to be removed." The existing dampers, ductwork and louvers were part of an air intake and exhaust system that under this contract were removed and replaced with cooling units for the Electric Room. It was determined that two small windows should have been installed at the louver locations to match the existing windows.

This change has been identified as a design omission. MWRA staff, the Consultant and the Contractor have agreed to a lump sum amount of \$8,546.74. The Contractor proceeded with this work at its own risk in order to proceed with the remainder of the contract work.

Furnish and Install a Larger Expansion Tank \$4,521.32

The contract work includes upgrades to the heating, ventilation and air conditioning systems to replace older equipment that has a history of maintenance issues. The Contractor furnished and installed a new expansion tank for the existing boiler. After it was placed into operation, during normal operation frequent actuations of both the water makeup valve and the pressure relief valve were observed, spraying the mixture onto the floor. The Designer determined the specified expansion tank was undersized and needed to be replaced with a larger tank. To correct this error, the newly furnished and installed expansion tank needs to be removed and replaced with the larger model tank.

This change has been identified by staff as a design error. MWRA staff, the Consultant and the Contractor have agreed to a lump sum amount of \$4,521.32. The Contractor proceeded with this work at its own risk in order to proceed with the remainder of the contract work.

Remove and Replace Fire Alarm Duct Bank \$3,951.50

During excavation to connect the new suction pipe to the existing pipe, the contractor encountered a concrete-encased ductbank containing fire alarm wiring from a pull station located on the East

Pumping Station. Record drawing information did not identify this ductbank in this location. The Newton Fire Department required the fire alarm wiring to remain in service during the construction of the pipe tie-in. Therefore, the fire alarm wiring had to be disconnected, temporarily relocated and reconnected at the pull station. The abandoned concrete ductbank could then be demolished. After the contractor completes the pipework and the excavation is backfilled, a new one-inch conduit with a concrete ductbank must be installed and the fire alarm wiring must be reinstalled to the pull station.

This change has been identified by staff as an unforeseen condition. MWRA staff, the Consultant and the Contractor have agreed to a lump sum amount of \$3,951.50. The Contractor proceeded with this work at its own risk in order to proceed with the remainder of the contract work.

CONTRACT SUMMARY:

	AMOUNT	TIME	DATED
Original Contract:	\$6,879,500.00	580 Days	02/04/19
CHANGE ORDERS:			
Change Order 1*	\$7,261.59	0 Days	12/09/19
Change Order 2*	\$146,503.51	0 Days	02/03/20
Change Order 3*	\$94,858.02	0 Days	04/30/20
Change Order 4	\$225,000.00	0 Days	04/30/20
Change Order 5*	\$9,507.29	0 Days	07/09/20
Change Order 6*	\$13,980.81	0 Days	08/03/20
Change Order 7*	\$131,601.03	180 Days	10/05/20
Change Order 8	\$150,000.00	0 Days	10/30/20
Change Order 9*	\$11,195.93	0 Days	11/24/20
Change Order 10	<u>\$230,246.92</u>	<u>0 Days</u>	Pending
Total Change Orders	\$1,020,155.10	180 Days	
 Adjusted Contract:	 \$7,899,655.10	 760 Days	

*Approved under delegated authority

If Change Order 10 is approved, the cumulative total value of all change orders to this contract will be \$1,020,155.10 or 14.8% of the original contract amount. Work on this project is approximately 92% complete.

BUDGET/FISCAL IMPACT:

The FY21 CIP includes a budget of \$7,515,137 for Contract 7524. Including this change order for \$230,246.92, the adjusted subphase will be \$7,899,655.10 or \$384,518.10 over budget. This amount will be absorbed within the five-year CIP spending cap.

MBE/WBE PARTICIPATION:

The D/MBE and D/WBE participation requirements for this project were established at 4.2% and 4.5%, respectively. The Contractor has been notified that these requirements are still expected to be met.

STAFF SUMMARY


TO: Board of Director
FROM: Frederick A Laskey, Executive Director
DATE: March 17, 2021
SUBJECT: PCR Amendments - March 2021



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 two PCR Amendments this month.

Organizational Changes:

1. Title change to one filled position in the Operations Division, Engineering & Construction department from Senior Staff Engineer Unit 9 Grade 25 to Senior Staff Engineer, Structural, Unit 9, Grade 25 to reflect responsibilities of the role.
2. Creation of a new position in the Executive Division, Public Affairs Department: Community Relations Coordinator (Tunnel Redundancy), Unit 6, Grade 12 to provide 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 \$117,280. Staff will ensure that the cost increase associated with this PCR amendment will not result in spending over the approved FY21 Wages and Salaries budget.

ATTACHMENTS:

New Job Descriptions

Old Job Descriptions

**MASSACHUSETTS WATER RESOURCES AUTHORITY
POSITION CONTROL REGISTER AMENDMENTS
FISCAL YEAR 2021**

PCR AMENDMENTS REQUIRING BOARD APPROVAL - March 17, 2021																	
Number	Current PCR #	V/F	Type	Current Title	UN	GR	Amended Title	UN	GR	Current/Budget Salary	Estimated New Salary		Estimated Annual			Reason For Amendment	
													\$ Impact				
B29	Engineering & Construction Department Operations Division 5525042	F	T	Senior Staff Engineer	9	25	Senior Staff Engineer, Structural	9	25	\$110,569	\$110,569	-	\$110,569	\$0	-	\$0	Title change to reflect responsibilities of the role.
B30	Public Affairs Department Executive Division TBD	N/A	N/A	N/A	N/A	N/A	Community Relations Coordinator (Tunnel Redundancy)	6	12	\$0	\$76,646	-	\$117,280	\$76,646	-	\$117,280	New position to support multi-year Tunnel Redundancy Program.
BOARD TOTAL=					2		TOTAL:					\$76,646 - \$117,280					

**MWRA
POSITION DESCRIPTION**



POSITION: Senior Staff Engineer, Structural

PCR#: 5525030

DIVISION: Operations

DEPARTMENT: Engineering & Construction

BASIC PURPOSE:

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

SUPERVISION RECEIVED:

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

SUPERVISION EXERCISED:

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

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Performs in-house planning, design, and management of various water, wastewater, and facilities repair, improvement and replacement projects, and in the investigation and resolution of construction and operations issues.
- Provides structural engineering support to the operating departments for the operations and maintenance programs of division facilities.
- Provides review and comments on 8(m) permit applications prepared by owners and/or consultants.
- Participates in the design of in-house projects including development of project plans, specifications, cost estimates and schedules.
- Maintains organized and detailed central files on assigned projects.

Page 1 of 4

U9 Gr 25

\\CNY1\Ria_MWRA_Pres\IN PROGRESS\1BoardStaffSummaries\Mar17\PCR\1A Senior Staff Engineer, Structural -Eng & Const December 2013 OLD.doc

- Establishes design criteria and applicable code requirements and performs analytical calculations for assigned work.
- Develops procedures to ensure safe and efficient operations, maintenance and testing practices.
- Provides technical review of consultant prepared reports and design projects, contractor shop drawings and O&M manuals.
- Participates in the preparation of standard specifications.
- Participates in field investigations in order to verify and obtain information on existing facilities, structures, systems and equipment.
- Supervises and manages junior professional staff, including assignment of tasks and evaluation of performance, as assigned.
- Prepares equipment and material quantity takeoffs for cost estimates.

SECONDARY DUTIES:

- Performs other related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) Knowledge of principles of and practices of structural engineering as normally attained through a four (4) year college program in structural engineering or a related field; and
- (B) Demonstrated knowledge of water and wastewater treatment plant, pump station, and pipeline design and construction as acquired through six (6) to eight (8) years of experience, of which two (2) years must include supervisory experience; or

Necessary Knowledge, Skills and Abilities:

- (A) Knowledge of structural engineering work as related to water and wastewater infrastructure and facilities design required.

- (B) Knowledge of codes and standards such as ACI, AISC, PCA, PCI, BOCA, AASHTO, AREA, OSHA, Mass. State Building and Highway codes, NETWPCC, ASCE and WEF Manual of Practice required.
- (C) Proficiency with personal computers and knowledge of word processing, spreadsheets and engineering applications software required.
- (D) Understanding of and experience with CADD systems preferred.
- (E) Excellent interpersonal, oral and written communication skills are required.

SPECIAL REQUIREMENTS:

Massachusetts Registered Professional Engineer license preferred.

Engineer-in-Training certificate required.

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

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

WORK ENVIRONMENT:

The work environment characteristics described here are representative of those employee

Page 3 of 4

U9 Gr 25

\\CNY1\Ria_MWRA_Pres\IN PROGRESS\1BoardStaffSummaries\Mar17\PCR\1A Senior Staff Engineer, Structural -Eng & Const December 2013 OLD.doc

encounters while performing the essential functions of this job. There are no specific environmental conditions noted.

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

December 2013

**MWRA
POSITION DESCRIPTION**



POSITION: Senior Staff Engineer, Structural

PCR#: 5525042

DIVISION: Operations

DEPARTMENT: Engineering & Construction

BASIC PURPOSE:

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

SUPERVISION RECEIVED:

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

SUPERVISION EXERCISED:

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

ESSENTIAL DUTIES AND RESPONSIBILITIES:

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

- Provides technical review of consultant prepared reports and design projects, contractor shop drawings and O&M (Operations and Maintenance) manuals.
- Participates in the preparation of standard specifications.
- Participates in field investigations to verify and obtain information on existing facilities, structures, systems and equipment.
- Supervises and manages junior professional staff, including assigning tasks and evaluating performance, as assigned.
- Prepares equipment and material quantity takeoffs for cost estimates.

SECONDARY DUTIES:

- Performs other related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

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

Necessary Knowledge, Skills and Abilities:

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

- (D) CADD Systems knowledge and experience preferred.
- (E) Excellent interpersonal, oral and written communication skills.

SPECIAL REQUIREMENTS:

A valid Massachusetts Class D Motor Vehicle Operators License.

Massachusetts Registered Professional Engineer license preferred.

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

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

WORK ENVIRONMENT:

The work environment characteristics described here are representative of those employee encounters while performing the essential functions of this job. There are no specific environmental conditions noted.

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

March 2021

**MWRA
POSITION DESCRIPTION**

NEW

POSITION: Community Relations Coordinator (Tunnel Redundancy)

DIVISION: Executive

DEPARTMENT: Public Affairs

BASIC PURPOSE:

Serves as a liaison to communities impacted by the Metropolitan Tunnel Redundancy project. Communicates project updates, provides customer service and builds relationships with constituents and cities and towns under the guidance of senior management. Educates the public on the impact and benefits of the project and resolves community concerns.

SUPERVISION RECEIVED:

Works under the general supervision of the Director of Intergovernmental Affairs in coordination with the Director, Tunnel Redundancy Program.

SUPERVISION EXERCISED:

None.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Works closely with other work units such as Planning, Engineering and Operations staff to understand project impacts to the communities in the Tunnel Study Area.
- Serves as a liaison to local elected and appointed officials and citizens of communities on tunnel project issues.
- Meets with relevant constituent groups including community working groups, professional organizations, and environmental and citizen advisory committees to receive feedback on the project and to build awareness of the benefits and impacts of the tunnel project. Makes presentations to community organizations as appropriate.
- Drafts responses to inquiries from the public regarding the Metropolitan Tunnel Redundancy Program. Coordinates with MWRA and consultant project managers and engineers to resolve concerns regarding impact on communities. Works closely with Communications Manager and other Public Affairs and Tunnel Redundancy employees to ensure consistent messaging on the Tunnel project.

- Updates the Director of Intergovernmental Affairs on issues that arise in various communities.
- Attends Tunnel Program meetings with project managers to understand project progress, timeframes, and issues. Communicates concerns from neighborhood groups and community leaders to manager and tunnel staff.
- Answers verbal inquiries from the public regarding MWRA tunnel activities.
- Assists with other projects as directed.
- Provides community relations support for after-hours and weekend project problems and operational crises as needed.

SECONDARY DUTIES:

- Assist with the coordination of emergency response activities.
- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) Bachelor's degree in public administration, political science, communications, or related field; and
- (B) At least five (5) to seven (7) years of experience in community relations and project management preferably in engineering or public sector.
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A)
- (B) Ability to handle conflict with tact, diplomacy, professionalism, and confidentiality.
- (C) General knowledge of engineering concepts.
- (D) Excellent interpersonal, written and oral communications skills.
- (E) Strong analytical skills.
- (C) Ability to work independently and to

SPECIAL REQUIREMENTS:

Availability to attend community meetings each week outside the normal business hours (i.e.

nights and/or weekends).

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 be lifted or force be exerted in the performance of this job. Specific vision abilities required by this job include close vision, and the ability to adjust focus.

WORK ENVIRONMENT:

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. While performing the duties of this job, the employee regularly works in an office environment.

The employee occasionally works in outside weather conditions at construction sites.

The noise level in the work environment is usually a moderately quiet office setting.

March 2021

STAFF SUMMARY


TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: February 17, 2021
SUBJECT: Appointment of Manager, Operations Administration



COMMITTEE: Personnel & Compensation

 INFORMATION
 X VOTE

Andrea Murphy, Director, Human Resources
Carolyn M. Fiore, Deputy COO, Operations Division
Preparer/Title



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

RECOMMENDATION:

To approve the appointment of Ms. Laurie Allen as Manager, Operations Administration (Unit 6 Confidential, Grade 13) in the Operations Division at an annual salary of \$120,129.66 commencing on a date to be determined by the Executive Director.

DISCUSSION:

The position of Manager, Operations Administration became vacant upon the retirement of the previous incumbent Marcel Brady. This position reports directly to the Chief Operating Officer. The Manager, Operations Administration, manages division level administrative initiatives and polices in support of the Chief Operating Officer. The position is the key point person for staff summary development in the Operations Division: managing the editing and tracking process, coordinating between affected departments, and resolving any issues that develop. In addition, the position oversees the development, coordination and implementation of all Operations Division procurement policies and initiatives. Other responsibilities include, but are not limited to, coordinating with the Law Division on all public information requests; reviewing and approving all critical need purchase order and sole source requests for the division; and, coordinating Internal Audit compliance audit responses for the division.

Laurie Allen reports directly to the Chief Operating Officer in the role of Senior Manager, Coordination and Control. This position was created in 2016 to address a need in the Operations Division to support the Chief Operating Officer with planning and implementing administrative coordination activities and reporting. Upon the retirement of Mr. Brady, Ms. Allen acquired the most critical duties of his position and continued carrying out the most critical duties of the Senior Manager, Coordination and Control position. Given the changing nature of work during the CoVid Pandemic, specifically the establishment of electronic procedures across the Authority, and the skills and abilities of Ms. Allen, the division recognizes an opportunity to streamline the organization by consolidating the critical functions of both positions and creating a new job description for the Manager, Operations Administration.

Ms. Allen is recommended for this position based on her knowledge, education, experience, skills, abilities and outstanding performance. Ms. Allen has nearly 30 years of professional experience, including the last eight at the MWRA. She has performed exceptionally well in her current role as Senior Manager, Coordination and Control, streamlining administrative processes and bringing a critical eye to sole source and critical need procurement issues. Since Mr. Brady's retirement, she has stepped in and deftly managed the most critical functions of his position on top of her own. Prior to her current role, Ms. Allen served as the Manager, Contracts Administration, in the Operations Division, principally responsible for oversight of the preparation and processing of proposed change orders and related Staff Summaries, oversight of professional staff, and implementation of special projects. Prior to MWRA, Ms. Allen served in a variety of increasingly responsible positions in various state and local agencies in the Commonwealth of Massachusetts, including the Assistant Director of State Audits and the Chief Procurement Officer for the City of Quincy.

Ms. Allen holds a Bachelor of Science Degree with Honors from Georgetown University, Washington, D.C, and a Master of Arts Degree from the University of Massachusetts, Boston.

BUDGET/FISCAL IMPACT:

There are sufficient funds for this position in the FY21 CEB.

ATTACHMENTS:

Resume of Laurie Allen
Position Description
Organization Chart

LAURIE M. ALLEN

EXPERIENCE:

- July 2016 to Present **Massachusetts Water Resources Authority, Charlestown, Massachusetts**
Senior Manager, Coordination and Control, and Public Records Access Officer
Duties include drafting, editing and tracking procurement documents, coordinating with Law Division on public records requests and representing the Chief Operating Officer in various matters as assigned.
- November 2012 to July 2016 **Massachusetts Water Resources Authority, Chelsea, Massachusetts**
Manager, Contract Administration, Engineering & Construction Department
Managed special projects, reviewed and edited proposed change orders and related documents, compiled reports, conducted audits; composed correspondence for Deputy Chief Operating Officer and represented Deputy Chief Operating Officer on various matters.
- June 2010 to November 2012 **Operational Services Division, Commonwealth of Massachusetts**
Boston, Massachusetts
Strategic Sourcing Services Lead
Responsible for the procurement and contract management of statewide telecommunications equipment and services contracts.
- January 2008 to June 2010 **Office of the State Auditor, Boston, Massachusetts**
Assistant to the Director of State Audits
Compiled reports, edited audit reports and provided support to the Director.
- May 2003 to December 2007 **City of Quincy, Massachusetts**
Chief Procurement Officer
Conducted the procurement and managed contracts for all municipal departments, including goods and services, public works and building construction.
- January 2002 to May 2003 **Office of the Mayor, Quincy, Massachusetts**
Executive Secretary
Chief policy advisor to Mayor. Served as primary liaison with members of the City Council and Executive Department heads, represented Mayor at City Council meetings, wrote speeches and press releases, assisted in policy development, and established office systems.
- March 2001 to November 2001 **Massachusetts Port Authority, Boston, Massachusetts**
Regional Transportation Planner
Supported the initiation and ongoing management of the \$1.5M New England Regional Aviation System Plan Update, including administration of grant and study contracts. Served as liaison with the Federal Aviation Administration, consultants and project management teams.
- January 2000 to March 2001 **Massachusetts Port Authority, Boston, Massachusetts**
Destination Marketing Manager, International Marketing Department
Responsibilities included the development and implementation of market strategies within assigned budget to increase international tourism to New England, management of contracted overseas representatives and organization of international trade shows and sales missions.
- November 1997 to December 1999 **McDermott, Will & Emery, Boston and New York**
Executive Assistant
Provided administrative support to Litigation and Corporate Partner resident in Boston and New York offices of international law firm.
- October 1991 to November 1997 **Office of the Governor, Boston, Massachusetts**
Special Assistant
Governor's executive assistant. Responsible for preparation of Governor's daily briefing book. Acted as confidential assistant and primary channel of communication.

EDUCATION:

University of Massachusetts, Boston
M.A. in English as a Second Language
Georgetown University, Washington, D.C.
B.S. with Honors, Linguistics

CERTIFICATIONS:

Massachusetts Certified Public Purchasing Official

LANGUAGES:

Fluent French

**MWRA
POSITION DESCRIPTION**

POSITION: Manager, Operations Administration

DIVISION: Operations

DEPARTMENT: Operations Administration

BASIC PURPOSE:

Directs, develops and implements division-level initiatives, strategies and policies in support of the Chief Operating Officer. Manages Operations Division reporting requirements, contract management requirements, and public presentations and materials. Develops and implements automated administrative systems and procedures related to master planning, operational and business strategies, organizational structure and contract management in support of the Chief Operating Officer.

SUPERVISION RECEIVED:

Works under the general supervision of the Chief Operating Officer.

SUPERVISION EXERCISED:

Exercises close supervision of assigned administrative support staff.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Directs the development, coordination and implementation of all Operations Division's procurement policies, strategies and initiatives.
- Develops and implements automated database systems for all Operations Division internal tracking requirements related to planning, contract management, operations and business strategies.
- Maintains and revises policies, procedures and electronic tracking for the administration and management of contracts.
- Coordinates all monthly Board of Directors agenda items, materials and presentations.
- Prepares edits and manages the staff summary process for the Operations Division. Ensures the appropriate development, editing and tracking of all staff summaries.
- Coordinates with Law Division on all public information requests.

- Directs development, coordination and implementation of all administrative policies and procedures associated with the Chief Operating Officer's office.
- Approves all critical need purchase order requests on behalf of the Chief Operating Officer.
- Reviews, edits and makes recommendations on all sole source and / or proprietary procurement initiatives.
- Reviews contract provisions, consults with appropriate MWRA staff and ensures compliance in legal, financial and affirmative action areas.
- Manages the Operations Division's responses to all Internal Audit Unit's compliance audits, to include sensitive matters requiring confidentiality.
- Assists in implementation of improvements in the Capital Delivery Program.
- Oversees the Operations Division's utilization of the MWRA's Purchasing Card Program.
- Participates in a variety of employee and labor relations issues requiring access and exposure to confidential information. May participate in investigations as required. Interacts with Human Resources and Operations staff on issues affecting division policy and / or personnel and collective bargaining matters.
- Represents the Chief Operating Officer on various matters as assigned.

SECONDARY DUTIES:

Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- A) A Bachelor's degree in public administration, business administration or a related field; and
- B) Knowledge of administrative management, procurement policies and procedures, financial analysis and personnel administration as acquired through seven (7) to nine (9) years of related experience; or
- C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- A) Demonstrated effectiveness at facilitating major projects that involve coordinating with people across all levels of an organization.

- B) Understanding of conceptual issues related to development of computer systems.
- C) Excellent analytical, facilitation, oral and written communication skills.
- D) Ability to maintain confidentiality and exercise discretion in sensitive matters.

SPECIAL REQUIREMENTS:

None.

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

There are no requirements that weight be lifted or force be exerted in the performance of this job. Specific vision abilities required by this job include close vision, and the ability to adjust focus.

WORK ENVIRONMENT:

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. While performing the duties of this job, the employee regularly works in an office environment.

The noise level in the work environment is usually a moderately quiet office setting.

March 2021

Operations Division Summary

March, 2021

Chief Operating Officer
5210001
NU/18
1,013 Positions

Manager Operations, Administration
5210007
C6/13

Head Administrative Assistant
5210006
6/9

Deputy Chief Operating Officer
5210072
NU/17
202 Positions

Director Env. & Reg. Affairs
5210096
NU/16
7 Positions

Chief Engineer
55250113
NU/16
82 Positions

Director, Wastewater
24700155
NU/16
470 Positions

Director, Waterworks
3391022
NU/16
249 Positions

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: March 17, 2021
SUBJECT: Appointment of Director, Security



COMMITTEE: Personnel & Compensation

 INFORMATION

 X VOTE

Andrea Murphy, Director, Human Resources

Preparer/Title

RECOMMENDATION:

To approve the appointment of Gary Cacace as Director, Security (Grade 16, Non-Union) in the Executive Office at an annual salary of \$161,000.00 commencing on a date to be determined by the Executive Director.

DISCUSSION:

In November 2020, the Board approved the creation of a new position, Director of Security, as well as related organizational changes. As it is critical to maintain safe and secure continuous operations, and to provide uninterrupted water and wastewater treatment for 3 million of residents, staff recommended creation of a new position of Director of Security. This position will report to the Executive Director and will focus on cyber security, physical security, and operations technology security.

The Director of Security will develop policies and strategies to reduce the risk of cyber-security threats, breaches and intrusions. This position will also oversee the management of contracts related to physical security including guard services and intrusion alarm monitoring and serve as the primary liaison to external entities including local, state, and federal government law enforcement agencies.

This role was previously filled by the Director of Emergency Planning and Preparedness. With his retirement, the opportunity was presented to restructure this organization. The Director of Security will report directly to the Executive Director and will oversee a team of four including a Senior Program Manager of IS Security, Manager of Security Services, Security Specialist, and an Administrative Systems Coordinator.

Selection Process:

The position of Director, Security was posted internally and externally. Thirty-two applications were received from which only one candidate, Mr. Gary Cacace, was deemed qualified. The Director of Administration, Special Assistant for Affirmative Action, Chief Operating Officer and Director of MIS participated in the initial interview. A second interview was held with the

Executive Director and Deputy Chief Operating Officer. Mr. Cacace is highly qualified for the position based on his professional experience and education.

Mr. Cacace is a long-time FBI professional and security expert with over 29 years of progressive experience in law enforcement. He currently serves as an FBI Supervisory Special Agent. He has participated in major critical incident command posts and active investigative scenes as both an investigator and a supervisor.

Mr. Cacace commanded the FBI's two regional offices in Northern and Central Massachusetts with responsibility for initiating and leading the FBI's investigative efforts in nearly 100 cities and towns. He has investigated complex crimes including terrorism, counterintelligence and cyber-crime. Mr. Cacace has experience facilitating assessments of security needs, safety strategies, policies and procedures and the effectiveness of security protocols.

Mr. Cacace has a bachelor's degree in Accounting from Quinnipiac University and a Master's degree in Science, Cyber Security, Policy and Governance from Boston College.

BUDGET/FISCAL IMPACT:

There are sufficient funds for this position in the FY21 CEB.

ATTACHMENTS:

Resume of Gary Cacace
Position Description
Organization Chart

GARY S. CACACE

PROFILE OVERVIEW

Vision – Communication - Leadership

Seasoned FBI professional and security expert with 29+ years of progressive experience in federal law enforcement. Highly skilled in planning, developing and implementing advanced security and intelligence operations. Exceptional leadership and communication skills augmented from years of hands-on fieldwork and people management experience. Track record of training, consulting and developing field agents and other law enforcement personnel on a national level.

Core Competencies:

- Risk Assessments
- Security Protocols
- Investigations
- Negotiations
- Asset Protection
- Strategic Planning
- Policy Development
- Financial Management
- Training & Development
- Risk Mitigation
- Project Management
- Security Technology

PROFESSIONAL EXPERIENCE

FEDERAL BUREAU OF INVESTIGATION

1991 – Present

SUPERVISORY SPECIAL AGENT | SPECIAL AGENT

Provide leadership and direction for a U.S. Government entity responsible for domestic intelligence and security services. Served in positions of increasing management responsibility.

- Serving as Supervisory Special Agent and Regional Organized Crime Drug Task Force Coordinator
- Served 7-year term limit as a Supervisory Special Agent responsible overseeing the strategic planning and prioritization of work based upon assessing, identifying, deterring and addressing actual and potential risk and security issues
- On scene commander for violent offender arrests, kidnappings, surveillance operations and investigative scenarios
- Investigate complex crimes ranging from crimes including terrorism, counterintelligence, cyber-crime, public corruption, civil rights, organized crime, white collar crime, violent crime, narcotics trafficking and human trafficking
- Direct training of FBI personnel thru mentoring, counseling and by setting performance based goals and objectives; create a culture of accountability, execution and professional development
- Lead multidisciplinary staff meetings to discuss changes in security needs, improvements to safety strategies and updates to policies and procedures; collaborate with team to perform ongoing assessments of the effectiveness of security protocols
- Manage budgets including specialized task forces, undercover operations, and usage/testing of leading edge technology
- Collaborate with partner agencies to identify and assemble agents for special FBI task forces

Selected Accomplishments

- Participated in major critical incident command posts and active investigative scenes in the capacities of both an investigator and a supervisor
- Supervised the FBI Boston Division's Crisis Negotiation Team
- Supervised the FBI's Economic Crimes Squad in Boston which successfully targeted criminals conducting multi-million dollar corporate fraud, telemarketing fraud and other white collar crime schemes
- Commanded the FBI's two regional offices in Northern and Central Massachusetts with responsibility for initiating and leading the FBI's investigative efforts in nearly 100 cities and towns
- Interrupted violent crimes including bank and armored car robberies, extortion, kidnaping, murder for hire, and interstate stolen property crimes
- Disrupted a planned terrorist attack in Washington D.C. using Undercover and other sophisticated techniques
- Collaborated with Canadian law enforcement in Montreal to reduce telemarketing fraud victimizing U.S. residents
- Successfully thwarted a complex mortgage fraud scheme led by a corrupt public official
- Commanded the scene of an employee involved shooting of a bank robbery suspect
- Recovered a victim of a kidnaping through tireless investigative efforts

- Other achievements include identifying, recruiting and managing informants to enhance investigative efforts

Previous Roles: Burzenski and Company – Staff Accountant

E D U C A T I O N , A C T I V I T I E S , A W A R D S & T R A I N I N G S

QUINNIPIAC UNIVERSITY- BACHELOR OF SCIENCE, ACCOUNTING

BOSTON COLLEGE – CANDIDATE FOR MASTERS OF SCIENCE, CYBER SECURITY, POLICY AND GOVERNANCE- GRADUATION - DECEMBER 2020

U.S. Attorney’s Award for Excellence 2013 ▪ Federal Law Enforcement Officer’s Association Award for Excellence 2013 ▪ Crisis (Hostage) Negotiator ▪ Division Bank Robbery Coordinator ▪ National Center for the Analysis of Violent Crime Coordinator

**MWRA
POSITION DESCRIPTION**

POSITION: Director of Security

DIVISION: Executive

DEPARTMENT: Security

BASIC PURPOSE:

Senior role responsible for oversight and long-term planning of MWRA cybersecurity policy. Additionally responsible for the day-to-day management, oversight and long-term planning of physical security systems for all MWRA locations. Ensures operations continuity, safety and security of systems, personnel, property and equipment. Develops and implements policies, protocols, and strategy, for cyber-security to reduce risk of threats, breaches, intrusions, and system downtime. Manages contracts related to physical security including guard services and intrusion alarm monitoring. Chairs MWRA Information Security Council and serves as primary liaison to external entities including local, state, and federal government law enforcement agencies on Information Technology/Operations Technology (IT/OT) security and physical security issues. Instills cybersecurity culture at the MWRA. This is a highly confidential position providing access to Security-Most Sensitive documents.

SUPERVISION RECEIVED:

Reports to the Executive Director, MWRA.

SUPERVISION EXERCISED:

Provides general supervision to Senior Program Manager, IS Security, Manager of Security Services, Security Specialist, and Administrative Systems Coordinator.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

Cybersecurity

- Develops, manages and maintains information security policies and standards as well as incident response protocols working closely with the Deputy Director, MIS and Director SCADA and Deputy Director, DITP.

- Conducts long-range, strategic planning efforts with internal and external partners in cyber activities. Collaborates with key stakeholders to enhance the cybersecurity risk management program.

- Monitors and evaluates the effectiveness of the MWRA's cybersecurity safeguards to ensure that they provide the intended level of protection.
- Ensures that plans of actions and milestones or remediation plans are in place for vulnerabilities identified during risk assessments, audits, inspections, etc.
- Monitors threats and conducts vulnerability testing and security audits.
- Oversees incident response planning, investigation of security incidents and/or data breaches, and related disciplinary and legal matters.
- May act as Incident Commander, Co-Commander, or as part of the Command team based on the incident type and severity. Oversees protective or corrective measures when a cybersecurity incident or vulnerability is discovered.
- Serves as primary liaison to SCADA and PICS managers on needed security improvements.
- Leads the Information Security Council and facilitates meetings.
- Acts as a liaison to federal, state, and local law enforcement authorities regarding responses to security threats, jurisdictional issues, and security enhancement tactics.

Physical security

- Oversees the design, definition, development, implementation and maintenance of physical security systems, applications, projects and programs.
- Manages MWRA physical security systems, video surveillance systems and access control procedures. Manages security guard services contract which includes 24/7 intrusion alarm monitoring.
- Oversees responses to security incidents.
- Leads efforts to innovate surveillance, access control, and public safety systems throughout operating units. Recommends changes to physical environment, systems, and technology to minimize risks.
- Oversees risk assessments and recommends/implements alternatives for mitigating vulnerabilities including physical hardening improvements, use of technology, and changes in policies and procedures.
- Manages audits of MWRA facilities to ensure compliance with MWRA security standards and provides a secure working environment.

- Acts as a liaison to federal, state, and local law enforcement authorities regarding responses to security threats, logistical support, jurisdictional issues, and security enhancement tactics.

Education and Awareness

- Communicates the value of information technology (IT) and Operations technology (OT) security and physical security throughout all levels of the organization stakeholders.
- Disseminates information relating to security and privacy legislation, advisories, alerts and vulnerabilities, and physical security incidents to executive staff.
- Routinely briefs executive staff on the state of cybersecurity at all facilities and provides periodic presentations at monthly Board of Directors meetings.

Staffing, Budgeting, and Procurement

- Leads and oversees information security and physical security budget, staffing, and contracting within unit.
- Serves on procurement teams on goods and services related to independent IT/OT and physical security audits, physical security contracts such as fire alarm response, surveillance systems, intrusion detection, and contracted guard services.

SECONDARY DUTIES:

Perform related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelor's degree in computer science, information technology, management science, criminal justice, or a related field. A Master's degree in related field is preferred; and
- (B) Ten (10) to twelve (12) years of experience in information technology and physical asset protection, of which five (5) years must be in a managerial capacity (with a preference for experience managing large Information Technology Units and experience in contract administration, alarm response, and physical security systems); or
- (C) Any equivalent combination of education and/or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Ability to develop policy, plans, and strategy in compliance with laws, regulations, policies, and standards in support of organizational cyber activities.
- (B) Technical expertise in information security architecture and tools such as firewalls, intrusion detection and remediation.
- (C) Knowledge of laws, regulations, policies, and ethics as they relate to cybersecurity and privacy and ability to interpret and apply laws, regulations, policies, and guidance.
- (D) Knowledge of computer networking concepts and protocols, and network security methodologies.
- (E) Knowledge of cybersecurity, privacy principles, cyber threats, and vulnerabilities.
- (F) Knowledge of risk management processes and system and application security threats and vulnerabilities.
- (G) Knowledge of emerging security issues, risks, and vulnerabilities.
- (H) Knowledge of water and wastewater industry technology and associated potential cybersecurity vulnerabilities preferred.

- (I) Understanding of physical security concepts and incident investigations as may be obtained by experience in law enforcement, military or public safety related fields.
- (J) Ability to maintain confidentiality and exercise discretion and tact in sensitive matters.
- (K) Strong managerial skills and a proven ability to direct and coordinate staff resources to successfully deliver services and products in a diverse technology environment.
- (L) Excellent analytical, interpersonal, written and oral communication skills.

SPECIAL REQUIREMENTS:

- Must be available 24/7 for security incident response.
- A valid Massachusetts Class D Motor Vehicle Operators License.
- Global Information Assurance Certification (GIAC) as a Security Expert (GSE).
- ITIL Intermediate certification.

Certifications required – at least two of the following:

- ASIS - American Society for Industrial Security
- CISM - Certified Information Security Manager (ISACA)
- CPP - Certified Protection Professional (American Society for Industrial Security ASIS)
- CISSP - Certified Information Systems Security Professional (International Information System Security Certification Consortium, also known as ISC)
- CRISC - Certified in Risk and Information Systems Controls (ISACA)
- ISS – Internet Security Systems Real Secure
- PSP - Physical Security Professional (American Society for Industrial Security ASIS)

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

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

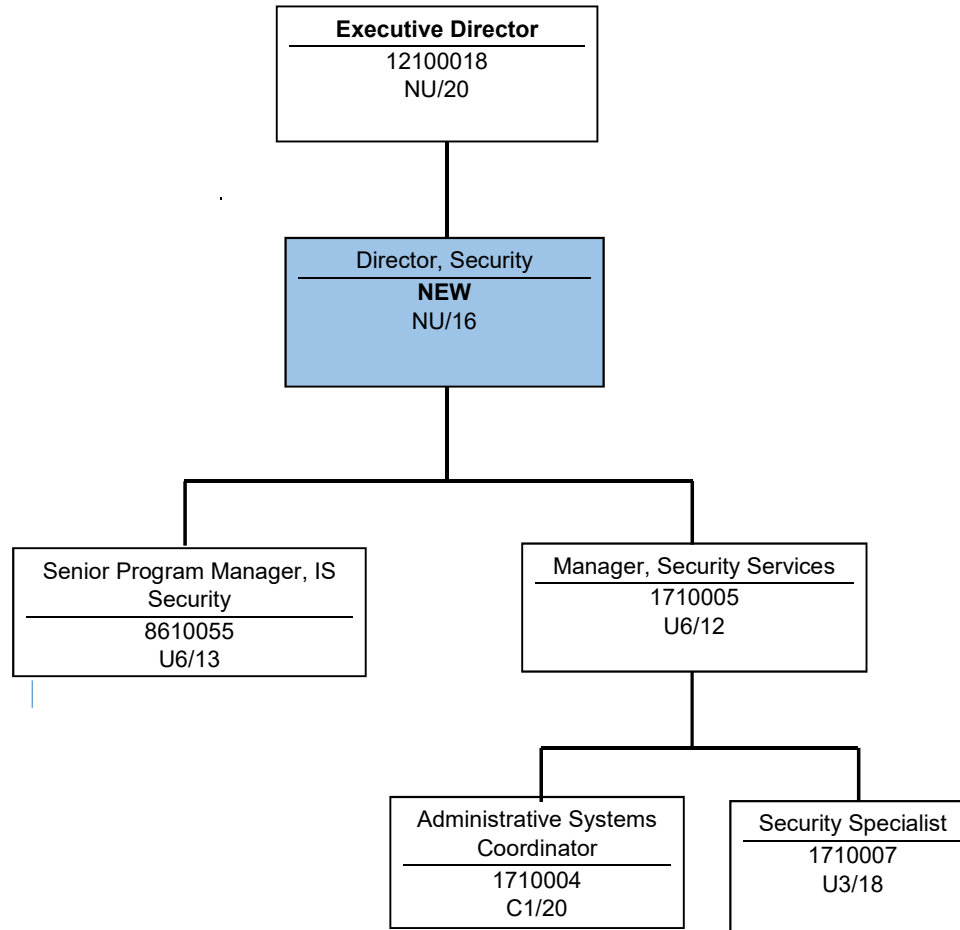
WORK ENVIRONMENT:

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


While performing the duties of this job, the employee works in an office environment. The noise level in the work environment is a moderately quiet office setting.

Executive Division

March 2021



STAFF SUMMARY


TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: March 17, 2021
SUBJECT: Appointment of Deputy Director, Management Information Systems, Administration

COMMITTEE: Personnel and Compensation

Paula Weadick, Director, MIS
Preparer/Title

 INFORMATION

 X VOTE


Michele S. Gillen
Director of Administration

RECOMMENDATION:

To approve the appointment of Mr. Roni Holzer to the position of Deputy Director, Management Information Systems (MIS), Non-Union, Grade 15, at an annual salary of \$146,000.00 commencing on a date to be determined by the Executive Director.

DISCUSSION:

The position of Deputy Director MIS became vacant upon the promotion of the incumbent. The Deputy Director, MIS oversees the security, design, implementation and administration of all infrastructure operations within the MIS network. This position is responsible for developing, directing and administering plans and programs that address the timely and cost effective delivery of information technology projects. The Deputy Director will ensure that all aspects of system development and operations have the appropriate Cyber Security focus throughout the life cycle of the system.

Selection Process

This position was posted both internally and externally. A total of 23 candidates applied, and seven candidates were determined to be qualified and were referred for an interview. Two candidates withdrew from the process prior to interviews. The Director of MIS, the Director of Wastewater Operations and the Associate Special Assistant for Affirmative Action conducted the interviews. One candidate was referred for a second interview with the Director of Administration. Upon completion of the interviews, Mr. Holzer was determined to be the best candidate based on his experience, knowledge, skills and education.

Mr. Holzer has over 20 years of experience in information technology with increasing roles of responsibility. For the past year and a half, Mr. Holzer served as Assistant Director of Utility Technology for Reading Municipal Light Department where he was responsible for the IT infrastructure, supporting GIS and automated vehicle location system, unified software usage across the organization and cyber security.

Prior to his role at Reading Municipal Light, Mr. Holzer was the Technical Relationship Manager for Nasuni, where his focus was on working with customers to ensure services provided met service level agreements and expectations. Mr. Holzer was also responsible for project management. He previously held the position of Technical Operations Manager managing the State Street Global Network and the role of Principal Service Manager managing voice over IP telephony services.

Mr. Holzer possesses a Technical Engineering/Computer Programming degree from Hadassah College, training in networking and telephony technologies, and is currently pursuing a certification in cyber security.

Based on his experience with IT infrastructure and operations support, background in application development, and his ability to manage technical staff to successful solution implementations, Mr. Holzer is recommended for the position of Deputy Director, Management Information Systems.

BUDGET/FISCAL IMPACT:

Sufficient funds are included in the FY21 CEB for this position.

ATTACHMENTS:

Resume of Roni Holzer
Position Description
MIS Organization Chart

Roni Holzer

Director of Information Technology ~ Network Operations Center ~ Customer Success

*Project Management - Delivery and Implementation
Solutions Management ~ Talent Development ~ Team Focused*

- Global manager, with consistent achievement in driving technical support with experience working in North and Latin America (Mercosur), APAC and EMEA markets
- 5+ years of experience in upper IT management, setting the mission, vision, and strategic roadmaps for the IT organization.
- 10+ years working with IT, Telephony, and operations.
- Responsible for overseeing IT operational and service management processes to ensure that our quality, efficiency and agility goals are met, while monitoring and improving the security of systems and quality of services.
- Experience working on yearly budget and teaming with (Senior) executives to define the company's roadmap including capital projects.
- Well versed in contract negotiations, vendor management and acquiring 3rd party services for external projects, including evaluating and implementing new SaaS products, Cloud hosting, etc, continuously evaluating existing systems, processes, and procedures, recommending new products and services to meet business needs
- Continuously improving IT processes and documentation and providing training for the entire organization in order to improve knowledge and security.
- Responsible for evaluating to ensure quality, security, efficiency, and agility goals are achieved. Constant evaluation and patch management to ensure/improve cybersecurity.
- Develop system backups and implement Disaster Recovery strategy for critical systems and infrastructure.
- Responsible for developing and improving relationship breaking silos between the business and IT team
- Comfortable facing customers, providers as well as multiple groups within the organization (Tier 1 to C-suite).
- Works well under pressure, able to multitask multiple projects with competing timelines while maintaining high level of professionalism.

Technical Skills

- Leadership
- Mentoring
- Technology
- Planning & execution
- Project management
- Vendor management
- Contract negotiation
- Strong verbal & written communication
- Automation
- MacOS
- Unix, Linux
- Microsoft windows
- MS Office 365 + Visio
- Active Directory
- Antivirus (Symanted/Broadcom, Malwarebytes)
- Backup & security
- Configuration & management
- MDM
- Firewalls & routers
- ITC/IP
- LAN/WAN Networks
- Ethereal/Wireshark,
- VoIP & POTN
- VMWare
- CISCO HUD, switches, GW & GKs
- HP Openview
- SSH (Putty)
- Ping Plotter
- Cloud technology
- SaaS
-
- Salesforce
- Remedy
- Scope
- Nagios
- Jira
- EasyCMDB
- ISM

Language skills

Fluent in: **English** **Spanish** **Portuguese (MT)** **Hebrew**
knowledge of: **Italian** **French**

US, Brazilian and Israeli Citizenship

Authorized to work in the USA, Israel and all Mercosur (Argentina, Uruguay, Paraguay, Chile and Brazil).

PROFESSIONAL EXPERIENCE

Reading Municipal Light Department - Reading, MA – USA (January 2019, July 2020)

Assistant Director of Utility Technology

Directed the following teams:

- Utility & Technology team GIS, SpryPoint)
- Billing (Cogsdale, InvoiceCloud, Microsoft Dynamics)
- DB, reporting (SQL, Power BI)
- IT (Routers, Firewalls, AD's, VMWare, Office365, IP Phones & Mobiles,etc)

Set direction for each team (including succession plans), creating SOP's, mentoring and cross training (within the team and cross teaming for redundancy).

External: Negotiate vendor contracts to obtain most favorable terms to RMLD. Vendor maintenance

Internal: Worked to bring down silos and improved overall communication & Data flow between departments.

Moved All software under IT, verified redundancies and aligned the organization to unify SW.

Created timelines for all organization projects and dashboards for executive visibility.

Continuously monitored IT infrastructure and serviceability and improved cybersecurity (including cybersecurity training for all employees, adding Multi Factor Authentication and Advanced Threat Protection).

Responsible for moving all non-essential employees to work remote, Cloud environment when possible and VPN access where needed.

Nasuni (NAS storage) - Boston, MA – USA (August 2017, November 2018)

Technical Relationship Manager

Established and cultivated professional relationship with the customer with focus on customer satisfaction, account growth and renewal.

Performed Weekly case reviews, created and managed feature requests and presented QBR/ABR's to executive teams. Also on special projects and health-checks for Nasuni's customer base.

Part of a team that monitored all customer growth and worked with the customer pertaining projected target growth policy.

Optanix (IT monitoring – SaaS) - Syracuse, NY – USA (October 2014 – January 2017)

Technical Operations Manager

Managed State Street Global Network, Optanix's largest account (20% of our company's revenue).

Established and cultivated professional relationship with the customer with focus to ensure customer satisfaction, account renewal, and account growth.

Managed a team of NOC technicians, Second and third level engineers, PM and other personnel dedicated to the account.

Managed escalations, created SOP's and procedures to improve services for the customer.

Maintained Runbook, performed monthly SLA reviews and presented MBR/QBR's to customer's executive team.

Sonus Networks Inc. (Telephony VOIP SIP & SBC solutions) - Westford, MA – USA (November 2011 – May 2014)

Principal Service Manager

Managed key accounts (customers and Channel partners) and Resident engineers (RENO) at customer's locations.

Led regularly scheduled meetings to discuss the status of all current open cases.

Closely involved in critical issues and working with all Sonus technical teams to prioritize and manage escalations.

Held quarterly meetings (QBR) with the customer and Sonus Account Team reviewing overall performance.

Created and delivered Postmortem/Root Cause Analysis on both technical and process critical issues.

Provided a high level software upgrade guidance, looking for optimal release for client.

Also was the lead person for representing the services organizations on all aspects of the Product development cycles to ensure that service-ability features of the products.

Mobile Messenger (SMS/MMS content distribution, campaign creation) - Watertown, MA – USA (January 2011 –October 2011)

Manager, Network Operations

Managed a team of 8 technicians maintaining a 24/7/365 Network supporting global customers.

Enhanced the NOC's technical skills, tools and procedures in order to improve the network, decreasing downtime.

Focused on delivery of best services, improving team's technical skills, resulting in Customer satisfaction and ensuring customer retention.

iBasis (KPN) (Telephony - voice traffic solutions both domestically and internationally.)

Burlington, MA – USA (August 1999 – December 2010)

Project Manager / Service Deployment Specialist

Managed all Americas including the Caribbean and assisted on EMEA & APAC regions when needed.

Served as point of contact for deployment of projects in conjunction with Sales & Engineering.

Senior NOC Controller / Technical Manager

Worked closely with a wide range of customers (tier 1,2 and 3 carriers), project managers, R&D, and provisioning and engineering teams to resolve problems associated with existing and new services.

ADDITIONAL PROFESSIONAL EXPERIENCES

Delta Three (**Network Manager**) – NetMedia International (**LAN Admin**) – *E.R. Computers Inc (Owner, technician & Teacher)* – *Sprint Computers (technical consultant & lead technician)* – *Combo Computers (senior technician)*

EDUCATION & TRAINING

Middlesex Community College

Information Technology - Cybersecurity (started in 2019)

Hadassah College Jerusalem, Israel (1990 – 1993)

Technical Engineering /Computer programming

Programming: C, C++, Pascal, COBOL, Assembler and others

Operating Systems & Electronics Lab

LinkedIn

1/2020 - **Performing a Technical Security Audit and Assessment**

12/2019 - **Digital Transformation**

12/2019 - **IT Security: Key Policies and Resources**

12/2019 - **Inside the Breach**

12/2019 - **Malware: Defense and Response**

12/2019 - **Microsoft 365 Business Essential Training for SMBs**

12/2019 - **Microsoft Office 365: Advanced Threat Protection**

12/2019 - **The Cybersecurity Threat Landscape**

11/2019 - **Managing Organizational Change for Managers**

10/2019 - **Learning Ransomware Countermeasures**

Cisco Systems

CCNA (Boot Camp): This course covered a broad range of topics, from Ethernet cabling to Virtual Networks (VPNs). It delves in to the core Cisco Technology and protocols, most specifically switching and routing.

SC2200 / Thundervoice - Configuration, operation, maintenance and basic troubleshooting of Cisco SS7 Interconnect for Voice Gateways Solution components —Cisco SC2200, Cisco AS5300, Cisco SLT and H.323 Gw/Gk.

Introduction to Cisco Router Configuration (ICRC)

CISCO Switch – SUMMA VCO 4k - Configuration & Management

Sonus Networks

SBC 5x00 - Configuration & Troubleshooting, 92

SBC 1000/2000 Accreditation Course

Network Monitoring Basics & Troubleshooting

GSX Basics

2/2017 – Career Source - **Project**

Management Essentials

5/2001 – Global Knowledge -

Microsoft Project

8/2000 – IBasis Inc. - **Project**

Management

6/2000 – Belle Systems - **Internet**

Management System (IMS) -

Technical System Administrator

PSX, PSX Basic + Additional Routing technique

PSX Advanced - Services

PSX A - Translation, SPE & CLI

SPO, Sonus Product Overview

4/2000 – ECI Telecom Inc. - **T::DAX** -

Operation and Maintenance Course

3/2000 – Global Knowledge Network -

Unix I, Unix II

Servico Nacional de Aprendizagem

Comercial (SENAC), Brazil

● **Programming**: Basic I , Basic II

- **Microcomputer's programmer I &II**: Data process, professional programming, Electronics, Logistic II, COBOL, Data Analysis, workshop

**MWRA
POSITION DESCRIPTION**

POSITION: Deputy Director, MIS

DIVISION: Administration

DEPARTMENT: Management Information Systems (MIS)

BASIC PURPOSE:

Plans, directs, and oversees the operations and budget of the Information Technology (IT) Operations and IT Security, Architecture & Engineering sections. Plans and maintains work systems, procedures, and policies that enable and encourage the optimum performance of assigned staff and other IT resources. Oversees the development, implementation, deployment and operation of information systems and technology solutions to meet business and operational needs across the organization.

SUPERVISION RECEIVED:

Works under the direct supervision of the Director, MIS. Acts as the Director, MIS in the absence of the Director.

SUPERVISION EXERCISED:

Manages IT professional, technical and administrative employees assigned to the IT Operations and IT Security, Architecture & Engineering sections.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

Management

- Provides oversight and direction to the employees in the operating sections in accordance with the organization's policies and procedures. Identifies needed improvements to work practices and works with Director, MIS and Labor Relations staff to bring about changes.
- Manages the preparation and maintenance of reports necessary to carry out the functions of the department. Prepares periodic reports for management, as necessary or requested, to track strategic goal accomplishment.
- Provides final recommendation on staffing levels. Works with Human Resources staff to recruit, interview, select, hire, and employ an appropriate number of employees.
- Mentors and develops staff, including overseeing new employee on-boarding and providing career development planning and opportunities. Encourages employees to take responsibility for their jobs and goals. Delegates responsibility as appropriate and expects accountability and regular feedback.

- Fosters a spirit of teamwork that allows for disagreement over ideas, conflict and conflict resolution, as well as the appreciation of diversity. Communicates organizational information through department meetings, one-on-one meetings, and appropriate email, and regular interpersonal communication.
- Leads employees using a performance management and development process that provides an overall context and framework to encourage employee contribution and includes goal setting, feedback, and performance development planning. Leads employees to meet the organization's expectations for productivity, quality, and goal accomplishment.
- Maintains employee work schedules including assignments, job rotation, training, vacations and approved leaves. Provides coverage for absenteeism, and overtime scheduling as needed.
- Assist in maintaining harmonious labor management relations through proper applications of collective bargaining agreement provisions and established personnel policies.
- Prepare for and hears Step-One grievances and pre-disciplinary hearings.
- Participate in collective bargaining negotiations.

IT Security, Architecture & Engineering

- Develops and implements an enterprise technical reference model. Responsible for the establishment of technical standards associated with information technology domains required to implement the Authority's systems.
- Responsible for information technology architecture and engineering activities. Ensures that technical blue prints for specific IT solutions are provided.
- Responsible for the development and maintenance of data architecture models, policies and standards that govern which data are collected, and how it is stored, arranged, integrated, and put to use in data systems and in organizations.
- Responsible for the development and maintenance of the policies, standards and procedures associated with the Information Security Program.
- Responsible for the development and maintenance of the IT Asset and Configuration Management Program including policies, standards and procedures to ensure that assets are identified, controlled, and managed.
- Oversees capacity management. Responsible to ensure that cost-justifiable system capacity is available to meet current and future business needs.
- Oversees technical problem management. Responsible for developing and managing the lifecycle of all problems from identification to removal.
- Estimates the financial impact of technical architecture alternatives as required. Manages expenses to sections budget.

- Responsible for the development and management of the IT change management process to ensure that all changes are prioritized, planned, tested, implemented, documented, and reviewed in a controlled manner.

IT Operations

- Direct and over sees the IT Operations Manager including the following teams:
 - System and Data Base Administration
 - Network Administration and Security Operations
 - Customer Support Services
- Responsible for the development of Policies and Procedures for the management and maintenance of the IT infrastructure
- Responsible for the oversight of Information Technology Service Management Processes including: Incident, Event, Access, Request Fulfillment, IT Operations and Release

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A four (4) year college degree program in a computer science, information technology or related field is required. Advance degree preferred; and
- (B) Eight (8) to ten (10) years of experience in IT architecture, engineering and security of which 4 years must be in a supervisory or managerial capacity overseeing an IT multi-discipline functional section; or
- (C) Any equivalent combination of education and experience.

Necessary Knowledge, Skills and Abilities:

- (A) Excellent analytical and technical skills.
- (B) Excellent written and verbal communication skills. Exceptional interpersonal skills in areas such as teamwork, facilitation and negotiation.
- (C) Excellent planning and organizational skills.
- (D) Strong leadership skills.
- (E) Knowledge of all components of a technical architecture; understanding of network architecture, service oriented architecture and object-oriented analysis and design.
- (F) Skill with CSS, HTML, one or more JavaScript frameworks, and AJAX, Microsoft's .Net framework

SPECIAL REQUIREMENTS

A valid Massachusetts Class D Motor Vehicle Operator's License.

ITIL Foundations Certification version 3 and at least two from the following list:

- IPRC - ITIL Practitioner - Release and Control
 - MCSE - Microsoft Certified Solution Expert
 - MCSD - Microsoft Certified Solution Developer
 - CISM - Certified Information Security Manager
 - CISSP - Certified Information Systems Security Professional
 - VCP5-DCV: VMware Certified Professional 5 - Data Center Virtualization
 - Cisco CCIE - Cisco Certified Internetwork Expert
 - PMP - Project Management Professional
 - CCP - Citrix Certified Professional
- Or the ability to obtain within one year.

TOOLS AND EQUIPMENT USED:

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

PHYSICAL DEMANDS:

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

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

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

WORK ENVIRONMENT:

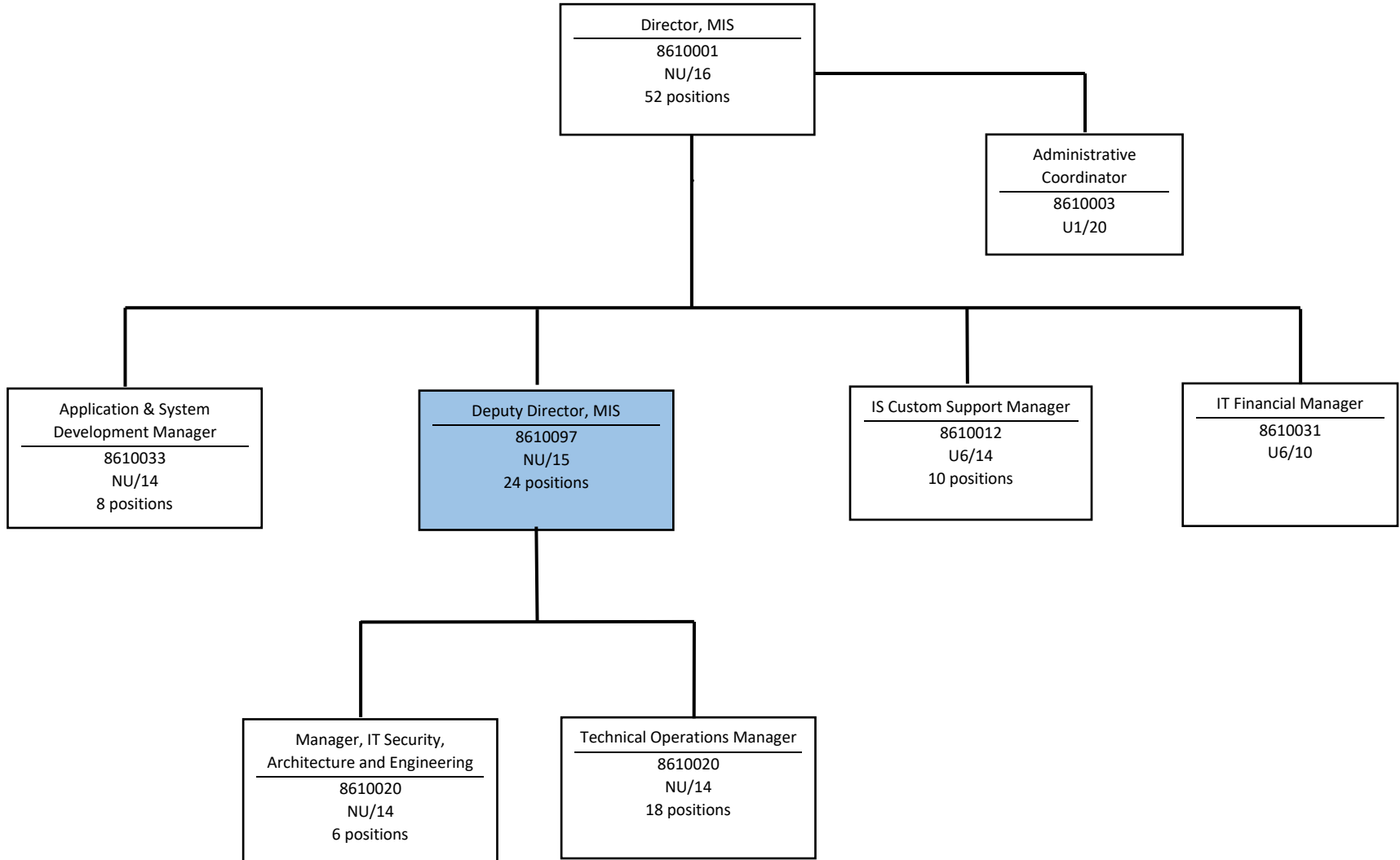
The work characteristics described here are representative of those an employee encounters while performing the essential functions of this job.

The noise level in the normal work environment is quiet.

Administration Division


MIS Department

March 5, 2021



STAFF SUMMARY

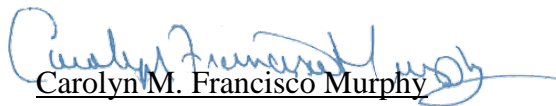
To: Board of Directors
From: Frederick A. Laskey, Executive Director
Date: March 17, 2020
Subject: Appointment of Associate General Counsel, Labor and Employment



COMMITTEE: Personnel & Compensation

 INFORMATION
 X VOTE

Andrea Murphy, Director, Human Resources
Preparer/Title



Carolyn M. Francisco Murphy
General Counsel

RECOMMENDATION:

To approve the appointment of Ms. Wen-hwei “Wendy” Chu to the position of Associate General Counsel, Labor and Employment, Law Division (Non-Union, Grade 15) at an annual salary of \$140,000, commencing on a date to be determined by the Executive Director.

DISCUSSION:

The position of Associate General Counsel, Labor and Employment will become vacant upon the retirement of the incumbent in April. The position reports to the General Counsel and involves a broad range of legal duties related to labor and employment matters, including: serving as lead labor and employment counsel for the Authority; providing advice and representation in all areas of federal and state labor, employment, wage and hour, unemployment and state ethics law; representing the Authority in arbitrations, mediations and adjudications before various administrative bodies such as the Massachusetts Commission of Discrimination (MCAD) and the Department of Labor Relations; analyzing and developing policies and procedures and advising on the MWRA Enabling Act; apprising the Board of Directors, Executive Director and General Counsel of issues and developments in their areas of responsibilities; advising on public records requests; and determining the applicability of federal, state and local laws, regulations and orders.

Selection Process:

This position was posted internally and externally. Twenty-five candidates applied for the position, including two internal candidates. Five candidates were interviewed by the General Counsel, Director of the Affirmative Action and Compliance Unit and Director of Administration. Following the first round of interviews three candidates were selected for a second interview with the General Counsel and Director of Environmental and Regulatory Matters. Attorney Chu is recommended for appointment as Associate General Counsel, Labor and Employment and is well suited and qualified for the position based upon her experience, background and knowledge.

Attorney Chu's legal career has focused exclusively on labor and employment law. She began her legal career as Labor Counsel at the Human Resources Division of the Commonwealth. After serving in that role for four years she was employed by the US Environmental Protection Agency to serve as Assistant Regional Counsel for Region 1. Attorney Chu was the sole labor and employment attorney for the Region, providing advice and counsel on labor relations matters, such as contract negotiations, grievances and unfair labor practices, and employee discipline, leave and discrimination matters. She represented the Region in litigation before federal administrative agencies and in arbitrations.

Following her work at the EPA, Ms. Chu returned to the Human Resources Division of the Commonwealth to serve as Assistant General Counsel/Diversity Officer. She represented the agencies in labor and employment litigation before state administrative bodies including the MCAD, the DLR and the Civil Service Commission, and in arbitration hearings. She also counseled state agencies in federal and state labor and employment matters including labor relations, collective bargaining, harassment and discrimination and FMLA leave, and conducted employment-related investigations. Attorney Chu developed, reviewed and provided advice and training on statewide employment policies. Finally, she served as the reasonable accommodation officer and co-chair of the agency's diversity committee, and was responsible for promoting and highlighting diversity in employment and investigating internal complaints of discrimination.

Since 2016, Attorney Chu has been in private practice representing public employers, including municipalities and school committees, in labor and employment litigation before various administrative bodies such as the MCAD, the U.S. Equal Employment Opportunity Commission, the DLR and the Department of Unemployment Assistance. In her current role she also advises public employers on a wide range of labor and employment topics such as collective bargaining, FMLA, ADA, discipline and discharge and workplace harassment and discrimination.

Attorney Chu received her Bachelor of Arts degree in 1995 from Columbia University and her Juris Doctor from Boston College Law School in 2002. She is a member in good standing of the Massachusetts Bar and is admitted to practice before the state and federal courts.

BUDGET/FISCAL IMPACT:

There are sufficient funds for this position in the FY21 CEB.

ATTACHMENTS:

Resume of Wendy H. Chu
Position Description
Organizational Chart for Law Division

WENDY H. CHU

EDUCATION

BOSTON COLLEGE LAW SCHOOL

NEWTON, MA

Juris Doctor, 2002

COLUMBIA UNIVERSITY

NEW YORK, NY

Bachelor of Arts – East Asian Languages and Culture, 1995

PROFESSIONAL EXPERIENCE

VALERIO DOMINELLO & HILLMAN, LLC

Attorney, 2018 – Present

DEUTSCH WILLIAMS BROOKS DERENSIS & HOLLAND, P.C.

Senior Associate, 2016 – 2018

Represent public employers, cities, towns, and school committees in labor and employment litigation before state and federal administrative agencies, including the Massachusetts Commission Against Discrimination, U.S. Equal Employment Opportunity Commission, Department of Labor Relations, Department of Unemployment Assistance, and Civil Service Commission. Represent public and private sector clients in grievance arbitrations and other litigation. Advise public employers on a wide range of labor and employment law topics, including collective bargaining, labor relations, FMLA, FFCRA, ADA, discipline and discharge, workplace harassment and discrimination, civil service, and layoffs and demotions. Conduct investigations into allegations of workplace harassment and discrimination.

COMMONWEALTH OF MASSACHUSETTS, HUMAN RESOURCES DIVISION

Assistant General Counsel/Diversity Officer, 2012 – 2016

Labor Counsel, 2003 – 2007

Assisted in the management and supervision of legal personnel who service various state agencies on labor and employment law matters. Served as legal counsel on labor and employment litigation before state administrative agencies, including the Massachusetts Commission Against Discrimination, Department of Labor Relations, and Civil Service Commission. Represented state agencies in grievance arbitration hearings. Counseled state agencies in state and federal labor and employment law matters, including labor relations, discrimination, harassment, FMLA, and civil service. Developed, reviewed, and provided advice and training on statewide employment policies, including FMLA leave, progressive discipline, and the Massachusetts Earned Sick Time law. Participated in collective bargaining negotiations on behalf of management. Conducted employment-related investigations at the request of the administration. Responsible for promoting and highlighting diversity in employment, investigating internal complaints of discrimination, facilitating reasonable accommodation requests, and co-chairing the agency's diversity committee.

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 1

Assistant Regional Counsel, 2008 – 2012

Served as the Region's sole labor and employment attorney. Provided advice and counsel to management representatives on labor relations matters (e.g., contract negotiations, grievances, unfair labor practices), employee discipline, employee leave, and employment discrimination matters. Represented the Region in litigation before federal administrative agencies, including the Federal Labor Relations Authority, Merit Systems Protection Board, Equal Employment Opportunity Commission, and Federal Mediation and Conciliation Service. Represented the agency in grievance arbitration hearings. Led highly sensitive investigation into allegations of harassment, discrimination, and retaliation. Counseled agency employees on federal ethics requirements. Researched and responded to inquiries on federal appropriations law. Performed legal reviews of agency agreements on various subject matters. Responded to subpoena requests in accordance with agency regulations.

WENDY H. CHU

PROFESSIONAL EXPERIENCE

(cont.)

H.E.R.E.I.U., LOCAL 6

Assistant Business Agent, 2002 – 2003

Represented hotel and restaurant workers in grievances and other contractual disputes with management. Assisted with grievance arbitration hearings. Negotiated side agreements and other resolutions with management.

PROFESSIONAL ASSOCIATIONS

- Massachusetts Bar Association
- Massachusetts Council of School Attorneys

BAR ADMISSIONS

- Massachusetts Bar, 2002
- US District Court for the District of Massachusetts, 2019

**MWRA
POSITION DESCRIPTION**

POSITION: Associate General Counsel (Labor and Employment)

DIVISION: Law

DEPARTMENT: Law

BASIC PURPOSE:

Handle all legal issues, provide counsel and representation and manage staff in the areas of responsibilities described below.

SUPERVISION RECEIVED:

Works under the general supervision of the General Counsel.

SUPERVISION EXERCISED:

Exercises general supervision of the Senior Staff Counsel and close supervision of administrative staff.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Acts as lead labor and employment counsel. Provides advice, counsel and representation in all areas of federal and state labor, employment, wage and hour, unemployment, and state ethics law.
- Supervises a staff of attorneys, a paralegal and administrative personnel involved in the handling of legal issues.
- Handles and provides representation in arbitrations, mediations and adjudications before administrative bodies of behalf on MWRA under the direction of the General Counsel.
- Analyzes and develops rules, regulations and policies, and provides advice on interpretations of the MWRA Enabling Act.
- Apprises the Board of Directors, Executive Director and General Counsel of issues and developments in areas of responsibility.
- Ensures that public records requests are handled in a timely, well-organized manner within

the requirements of law.

- Research and determines the applicability of federal, state and local laws, regulations, and case law, etc in areas of responsibility.
- Drafts and analyzes advice memoranda, pleadings, motions, briefs, legal documents, claim documents, collective bargaining agreements and other memoranda.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) Analytical and writing skills as normally attained through a Bachelor's degree; and
- (B) JD from accredited law school; and
- (C) Understanding of legal areas of responsibility such as labor, employment, wage and hour, unemployment and state ethics law as acquired by seven (7) to ten (10) years of related experience; and
- (D) Admittance in good standing to the bar to practice law in Massachusetts state and federal courts; or
- (E) Any combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Strong supervisory skills are preferred. One (1) to three (3) years of managerial or supervisory experience preferred.
- (B) Strong analytical, organizational and oral and written communication skills are required.

SPECIAL REQUIREMENTS:

Admittance to the bar to practice law in Massachusetts.

A valid Massachusetts Class D Driver's 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 be lifted or force be exerted in the performance of this job. Specific vision abilities required by this job include close vision, and the ability to adjust focus.

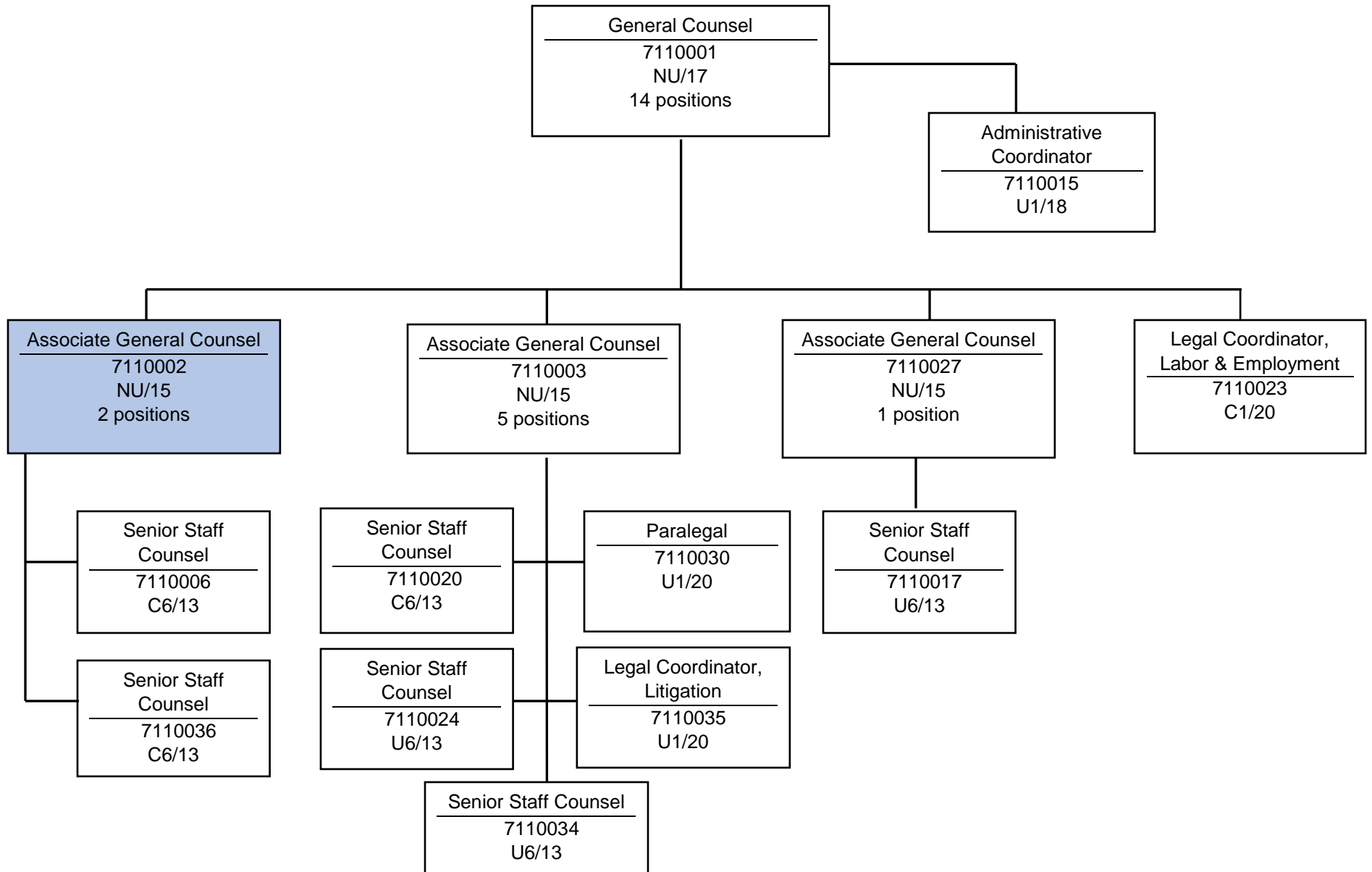
WORK ENVIRONMENT:

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

While performing the duties of this job, the employee regularly works in an office environment. The noise level in the work environment is usually a moderately quiet office setting.

January 2021

**Legal Division
March 2021**



STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: March 17, 2021
SUBJECT: Delegated Authority Report – February 2021



COMMITTEE: Administration, Finance & Audit

INFORMATION
 VOTE

Linda Grasso, Admin. Systems Coordinator
Barbara Aylward, Administrator A & F
Preparer/Title


Michele S. Gillen

Director, Administration


Douglas J. Rice
Director of Procurement

RECOMMENDATION:

For information only. Attached is a listing of actions taken by the Executive Director under delegated authority for the period February 1 – 28, 2021.

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 21, 2018, delegate authority to the Executive Director to approve the following:

Construction Contract Awards:

Up to \$1 million if the award is to the lowest bidder.

Change Orders:

Up to 25% of the original contract amount or \$250,000, 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 \$100,000 and one year with a firm; or up to \$50,000 and one year with an individual.

Non-Professional Service Contract Awards:

Up to \$250,000 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 \$1 million if the award is to the lowest bidder.

Amendments:

Up to 25% of the original contract amount or \$250,000, whichever is less, and for a term not exceeding an aggregate of six months.

Amendments to the Position Control Register:

Amendments which result only in a change in cost center.

BUDGET/FISCAL IMPACT:


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

NO.	DATE OF AWARD	TITLE AND EXPLANATION	CONTRACT	AMEND/CO	COMPANY	FINANCIAL IMPACT
C-1.	02/12/21	TAFTS AND SHIRLEY INTERSECTION IMPROVEMENTS AWARD OF A CONTRACT TO THE LOWEST RESPONSIVE BIDDER FOR TAFTS AND SHIRLEY INTERSECTION IMPROVEMENTS FOR A TERM OF 60 CALENDAR DAYS.	5598	AWARD	UNIFIED CONTRACTING, INC.	\$172,999.00
C-2.	02/19/21	CAPITAL IMPROVEMENTS AT THE BIOSOLIDS PROCESSING FACILITY INVESTIGATE OPERATIONAL ISSUES AND FURNISH AND INSTALL DESICCANT, FILTERS, DRYER MUFFLER AND DEW POINT MONITOR.	7153	9	IPC LYDON, LLC	\$27,711.80
C-3.	02/23/21	CHEMICAL TANK RELINING & PIPE REPLACEMENT, DEER ISLAND TREATMENT PLANT DEMOLISH, FURNISH AND INSTALL RUBBER LINING FOR PIPE SUPPORTS, TANK PENETRATION NOZZLES IN SODIUM BISULFITE STORAGE TANKS 1 AND 2; FURNISH AND INSTALL STEEL PATCH PLATES ON THE SIDEWALL OF SODIUM HYPOCHLORITE STORAGE TANK 1.	7373	3	WALSH CONSTRUCTION COMPANY II, LLC	\$110,701.39
C-4.	02/23/21	NUT ISLAND HEADWORKS ODOR CONTROL AND HVAC IMPROVEMENTS INSPECTIONS, EVALUATIONS, DESIGN, CONSTRUCTION ADMINISTRATION RESIDENT ENGINEERING SERVICES INCREASE THE LEVEL OF EFFORT TO PROVIDE CONTINUATION OF CONTRACTOR SUBMITTALS REVIEW SERVICES.	7517	2	HAZEN AND SAWYER, P.C.	\$250,000.00

PURCHASING DELEGATED AUTHORITY ITEMS FEBRUARY 1 - 28, 2021

NO.	DATE OF AWARD	TITLE AND EXPLANATION	CONTRACT	AMENDMENT	COMPANY	FINANCIAL IMPACT
P-1.	02/03/21	24-HOUR EMERGENCY OIL SPILL RESPONSE Award of a one-year sole source purchase order contract for 24-hour oil spill response at Deer Island.			Boston Line & Service Company, Inc.	\$25,177.50
P-2	02/03/21	REPAIR OF ONE COOLING TOWER SUMP Award of a purchase order to the lowest responsive bidder for the repair of one cooling tower sump for Deer Island.	WRA-4915Q		BMI Mechanical, Inc.	\$27,500.00
P-3	02/03/21	REBUILD OF ONE MUFFIN MONSTER GRINDER Award of a sole source purchase order for the rebuild of one Muffin Monster grinder for the Quincy Pump Station.			JWC Environmental, LLC,	\$39,997.99
P-4	02/03/21	ANNUAL MAINTENANCE AND SUPPORT OF INFOWATER SUITE, INFOSURGE, AND INFOWORKS SEWER LICENSE SOFTWARE Award of a sole source purchase order for the annual maintenance and support of InfoWater Suite, InfoSurge, and InfoWorks Sewer License Software for the service period March 15, 2021 to March 14, 2022.			Innovyze, Inc.	\$43,182.00
P-5	02/08/21	PURCHASE OF ONE NEW MUFFIN MONSTER GRINDER CUTTER CARTRIDGE Award of a sole source purchase order for one new Muffin Monster grinder cutter cartridge for the Deer Island Treatment Plant.			JWC Environmental, LLC	\$42,234.30
P-6	02/10/21	PROVIDE ONSITE COVID-19 TESTING FOR MWRA EMPLOYEES Award of a critical need purchase order contract to provide onsite COVID19 Testing Services for MWRA employees for the time period December 14, 2020 through April 30, 2021.			Transformative Healthcare, LLC	\$500,000.00
P-7	02/23/21	SUPPLY AND DELIVERY OF SODIUM HYDROXIDE Award of a one-year purchase order to the lowest responsive bidder for the supply and delivery of sodium hydroxide at MWRA's headworks facilities.	WRA-4928Q		Borden & Remington Corporation	\$32,151.36
P-8	02/23/21	SUPPLY AND DELIVERY OF SODIUM BISULFITE Award of a one-year purchase order to the lowest responsive bidder for the supply and delivery of sodium bisulfite to various wastewater locations.	WRA-4930		Univar Solutions USA, Inc.	\$97,522.00
P-9	02/23/21	SUPPLY AND DELIVERY OF SODIUM BISULFITE Award of a one-year purchase order to the lowest responsive bidder for supply and delivery of sodium bisulfite at Deer Island.	WRA-4931		Holland Company, Inc.	\$162,750.00
P-10	2/23/2021	Provision of the MWRA Consumer Confidence Report Award of a one-year extension option purchase order for the annual printing and mailing of the MWRA Consumer Confidence Report.	WRA-4613		Hannaford & Dumas Commercial Printers	\$249,500.00

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: March 17, 2021
SUBJECT: FY21 Financial Update and Summary Through February 2021

COMMITTEE: Administration, Finance & Audit

INFORMATION
 VOTE

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


Thomas J. Durkin
Director, Finance

RECOMMENDATION:

For information only. This staff summary provides financial results and variance highlights for Fiscal Year 2021 through February 2021, comparing actual spending to the budget.

DISCUSSION:

MWRA is continuing the practice of setting aside favorable Capital Finance variances into the Defeasance Account with the intention of using 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 \$8.9 million was transferred to the Defeasance Account. This is the result of the lower than budgeted variable interest rates, timing of the SRF transaction, partially offset by higher than anticipated Senior Debt.

The total Year-to-Date variance for the FY21 CEB is \$7.4 million, due to lower direct expenses of \$7.7 million, partially offset by higher indirect expenses of \$1.0 million; and higher revenue of \$0.6 million. The year-end favorable variance is projected at \$24.4 million, of which \$16.0 million is related to debt service. Beyond debt service savings, staff project a surplus of approximately \$8.4 million at year-end of which \$9.4 million would be from lower direct expenses, offset by higher indirect expenses of \$1.0 million. Please note, these amounts may not add due to rounding.

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.

FY21 Current Expense Budget

The CEB expense variances through February 2021 by major budget category were:

- Lower Direct Expenses of \$7.7 million or 4.7% under budget. Spending was lower for Wages & Salaries, Professional Services, Utilities, Other Services, Fringe Benefits, Maintenance, Overtime, Worker's Compensation, Chemicals, and Training and Meetings. Spending was higher than budget for Other Materials.

- Higher Indirect Expenses of \$1.0 million or 2.4% over budget due primarily to the updated HEEC capacity and service charge, partially offset by lower Watershed Reimbursements and Pension expense.

**FY21 Budget and FY21 Actual Variance by Expenditure Category
(in millions)**

	FY21 Budget YTD	FY21 Actual YTD	\$ Variance	% Variance
Direct Expenses	\$163.7	\$156.0	-\$7.7	-4.7%
Indirect Expenses	\$40.6	\$41.5	\$1.0	2.4%
Capital Financing	\$299.4	\$299.4	\$0.0	0.0%
Total	\$503.7	\$496.9	-\$6.8	-1.3%

Totals may not add due to rounding

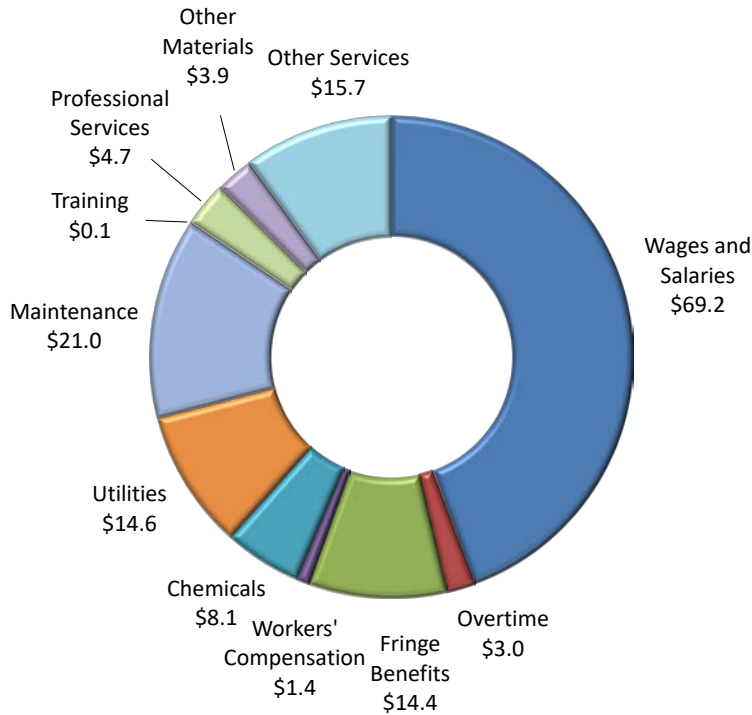
Total Revenues of \$534.0 million were \$0.6 million or 0.1% higher than budget due to higher Other Revenue, partially offset by lower Investment Income.

Please refer to Attachment 1 for a more detailed comparison by line item of the budget variances for FY21.

Direct Expenses

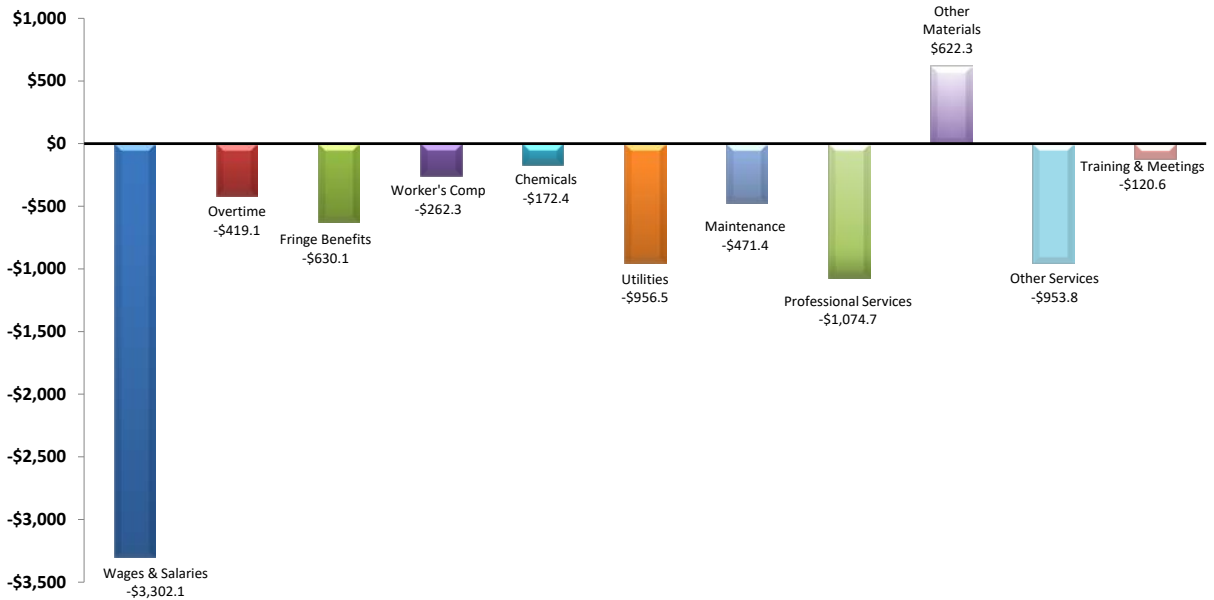
FY21 direct expenses through February totaled \$156.0 million, which was \$7.7 million or 4.7% less than budgeted.

**FY21 Direct Expenses
(in millions)**



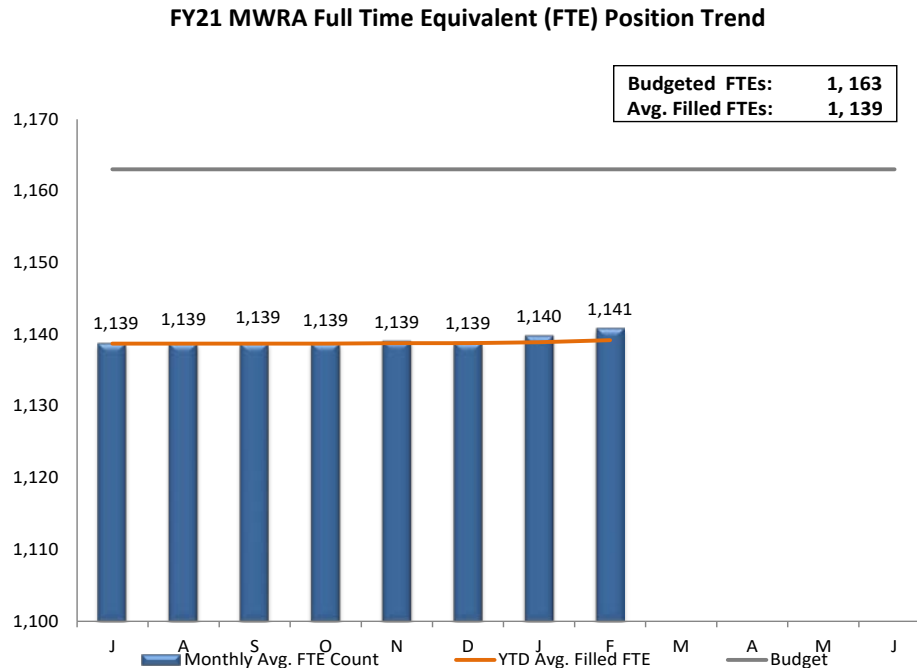
The budget variance is due to lower spending for Wages & Salaries, Professional Services, Utilities, Other Services, Fringe Benefits, Maintenance, Overtime, Worker’s Compensation, Chemicals, and Training and Meetings. Spending was higher than budget for Other Materials.

**FY21 Direct Expense Variance
(in thousands)**



Wages and Salaries

Wages and Salaries are under budget by \$3.3 million or 4.6%. Through February, there were 24 fewer average FTEs (1,139 versus 1,163 budget) or 2.1% and lower average salaries for new hires versus retirees. The timing of backfilling vacant positions also contributed to Regular Pay being under budget.



Professional Services

Professional Services were lower than budget by \$1.1 million or 18.6%. The overall underspending is due to lower than budgeted spending in Computer Systems Consultant of \$1.0 million in MIS primarily due to timing delays of projects including Website Redesign, PIMS Power Builder, Landesk, and Crystal Report Writer; Engineering of \$296,000 primarily in Field Operations; and Legal Services of \$156,000 in Law and Administration. This is partially offset by higher Lab and Testing Analysis of \$406,000 in Operations due to the Biobot contract.

Utilities

Utilities were less than budget by \$1.0 million or 6.2%. The budget variance is due to underspending in Electricity of \$857,000 primarily at DITP (\$479,000) driven primarily by power demand charges being less than budgeted based on flows, new pricing, and real time market prices for the non-block purchases under the Direct Energy contract; and Water Operations of \$266,000 due to lower rates and quantity.

Other Services

Other Services were lower than budget by \$1.0 million or 5.7%. The budget variance is due to lower than budgeted spending for Sludge Pelletization of \$826,000 due to lower year-to-date quantities, Grit and Screening Removal of \$93,000 due to lower quantities, and Telecommunications of \$88,000 primarily in MIS. This is partially offset by greater than budgeted spending in Other Services of \$144,000 primarily in Water Operations due to the Brookline water pipeline break.

Fringe Benefits

Fringe Benefit spending was lower than budget by \$0.6 million or 4.2%. This is primarily driven by lower Health Insurance costs of \$563,000, 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 that are less expensive.

Maintenance

Maintenance was lower than budget by \$0.5 million or 2.2%, largely driven by the timing of projects. Maintenance Materials were under budget by (\$778,000) driven by Plant & Machinery Materials (\$490,000) due to timing of materials including rolling stock and booster pumps, and HVAC Materials (\$390,000) due to the timing of purchases. Maintenance Services are over budget by \$307,000 driven by higher Plant and Machinery Services (\$1.3 million) due to the timing of work for several contracts including DITP painting and coatings and Computer Software Licenses, partially offset by lower Building & Grounds Services (\$629,000) primarily due to underspending on service contracts, and lower Special Equipment Services (\$181,000).

Overtime

Overtime expenses were lower than budget by \$0.4 million or 12.4% primarily in Field Operations (\$471,000) mainly for emergency and planned overtime, with lower spending on emergency maintenance, CSO activation, planned off-hours maintenance, training, and community assistance; TRAC (\$20,000) due to fewer responses to rain events and limited 8M permit inspections; and Engineering & Construction (\$97,000). This was partially offset by higher spending for Deer Island (\$175,000) for shift coverage including Covid-19 coverage and unplanned maintenance including HEEC maintenance.

Worker's Compensation

Worker's Compensation expenses were lower than budget by \$0.3 million or 15.7%. The lower expenses were primarily due to favorable variances in compensation payments (\$272,000) and administrative expenses (\$11,000), partially offset by higher medical payments (\$20,000). This reflects fewer accidents and reduced severity of those accidents. Due to the uncertainties of when spending will happen, the budget is spread evenly throughout the year.

Chemicals

Chemicals were lower than budget by \$0.2 million or 2.1%. Lower than budget spending on Sodium Hypochlorite of \$112,000 is driven by Field Operations due to lower dosing at the Carroll Water Treatment Plant; Sodium Bisulfite of \$83,000 driven by Wastewater Treatment; Polymer of \$63,000 driven by DITP due to less usage for centrifuge operations; and Soda Ash of \$48,000 driven by Water Operations due to source water showing fluctuations in alkalinity affecting the dose and Clinton Wastewater Treatment Plant due to timing of deliveries. This is offset by higher than budget spending on Carbon Dioxide of \$127,000 driven by Water Operations due to the force majeure surcharge and higher dose to meet the pH target; and Hydrogen Peroxide of \$88,000 driven by DITP due to higher H₂S gas levels. DITP flows are 4.7% lower than the budget and CWTP flows are 0.2% higher 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 and timing.

Training & Meetings

Training & Meetings expenses were lower than budget by \$0.1 million or 58.7% driven by the timing of spending as well as conferences that were postponed or canceled due to the pandemic.

Other Materials

Other Materials were higher than budget by \$0.6 million or 19.0% driven by higher than budgeted spending of \$626,000 for Vehicle Purchases/Replacements due to timing; Computer Hardware of \$371,000 in MIS and \$127,000 for Health/Safety Materials, both driven by purchases made in response to Covid-19, partially offset by lower Other Materials of \$199,000 and lower Vehicle Expense of \$130,000 primarily due to less driving and lower fuel prices.

Indirect Expenses

Indirect Expenses totaled \$41.5 million, which is \$1.0 million or 2.4% greater than budget. The variance is primarily driven by the cost for the new HEEC cable (\$3.0 million). Based on the latest information from HEEC, MWRA will owe HEEC additional costs related to FY20, and we expect to make that payment by June 2021. Because we are now aware of this liability, we accrued for it starting in November. This is partially offset by lower Pension expense (\$1.0 million). After approval of the FY21 Current Expense Budget, the retirement system received a new Public Employee Retirement Administration Commission approved required contribution. The required contribution was reduced from \$11.0 million to \$10.0 million.

Based on FY21 operating activity only, the Watershed Division is \$2.0 million or 17.1% under budget through February. This is driven by lower spending on Wages and Salaries, Maintenance, Fringe Benefits, Equipment, and Professional Services. When factoring in the FY20 balance forward (\$959,000) which was paid during Q1 of FY21, and the lower PILOT payment (\$132,000), Watershed Reimbursement \$1.2 million or 5.8% below budget through February.

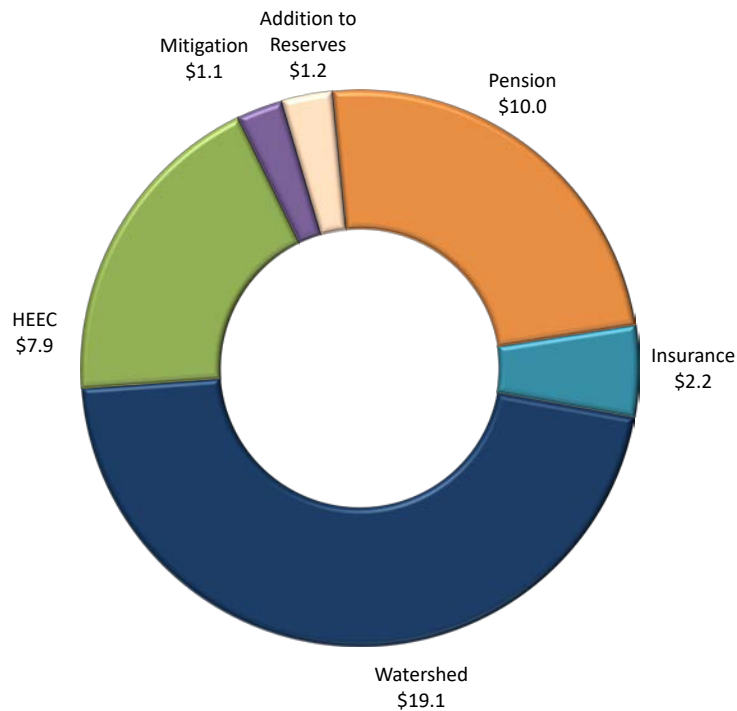
FY21 Watershed Protection Variance

\$ in millions	YTD Budget	YTD Actual	YTD \$ Variance	YTD % Variance
Operating Expenses	12.6	10.4	-2.2	-17.7%
Operating Revenues - Offset	0.8	0.6	-0.2	-26.8%
FY21 Operating Totals	11.8	9.8	-2.0	-17.1%
DCR Balance Forward (FY20 4th quarter accrual true-up)	0.0	1.0	1.0	
FY21 Adjusted Operating Totals	11.8	10.8	-1.1	-8.9%
PILOT	8.5	8.4	-0.1	-1.6%
Total Watershed Reimbursement	20.3	19.1	-1.2	-5.8%

Totals may not add due to rounding

MWRA reimburses the Commonwealth of Massachusetts Department of Conservation (DCR) and Recreation - Division of Water Supply Protection – Office of Watershed Management for expenses. The reimbursements are presented for payment monthly in arrears. Accruals are being made monthly based on estimated expenses provided by DCR and trued-up monthly based on the monthly invoice. MWRA’s budget is based on the annual Fiscal Year Work Plan approved by the Massachusetts Water Supply Protection Trust. The FTE count at the end of February was 137 (and 132.8 on a year-to-date basis) vs. a budget of 150.

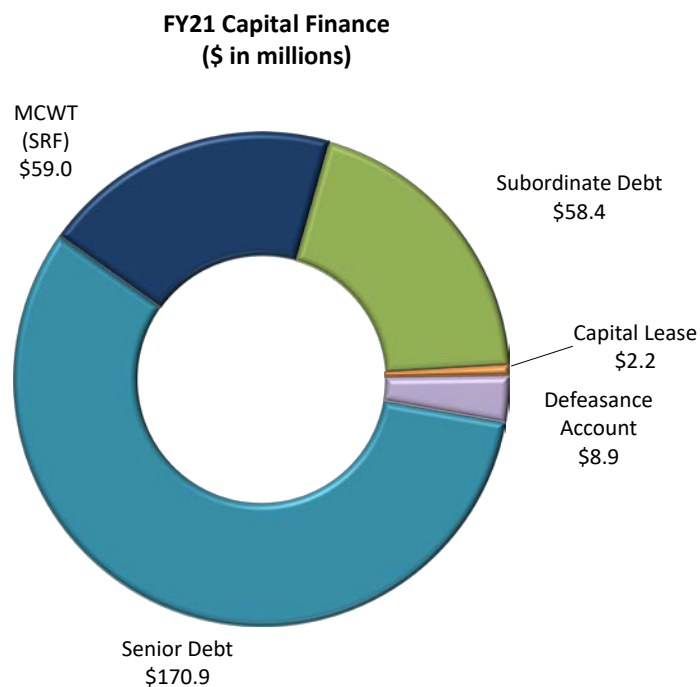
**FY21 Indirect Expenses
(in millions)**



Capital Financing

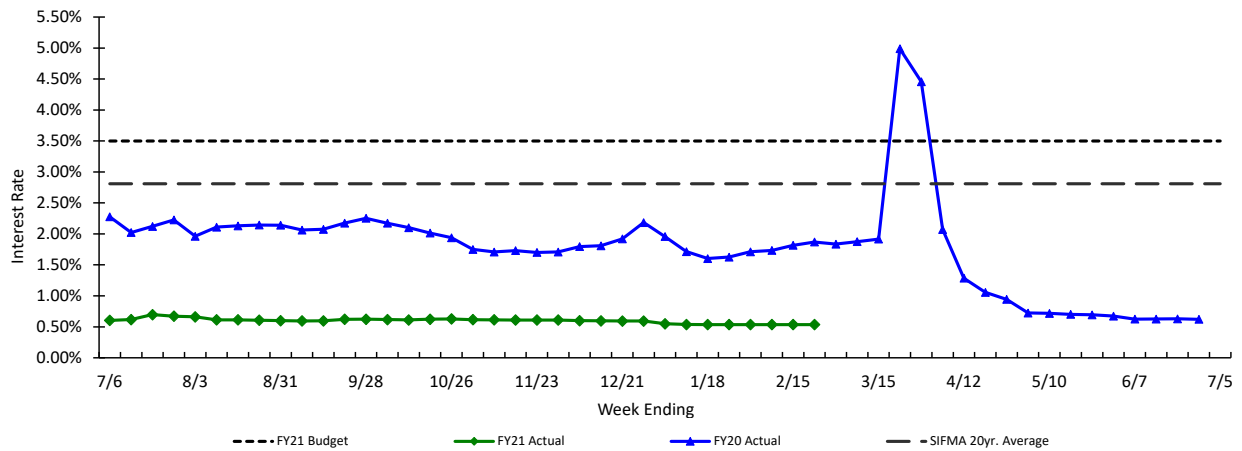
Capital Financing expenses include the principal and interest payments for fixed senior debt, the variable subordinate debt, the Massachusetts Clean Water Trust (SRF) obligation, the commercial paper program for the local water pipeline projects, current revenue for capital, Optional Debt Prepayment,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

Year-to-date Capital Financing expenses for FY21 totaled \$299.4 million, which is right on budget. In February, the year-to-date debt related savings of \$8.9 million was transferred to the Defeasance Account. This is the result of the lower than budgeted variable interest rates, timing of the SRF transaction, partially offset by higher than anticipated Senior Debt due to the timing of borrowing.



The graph below reflects the FY21 actual variable rate trend by week against the FY21 Budget.

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



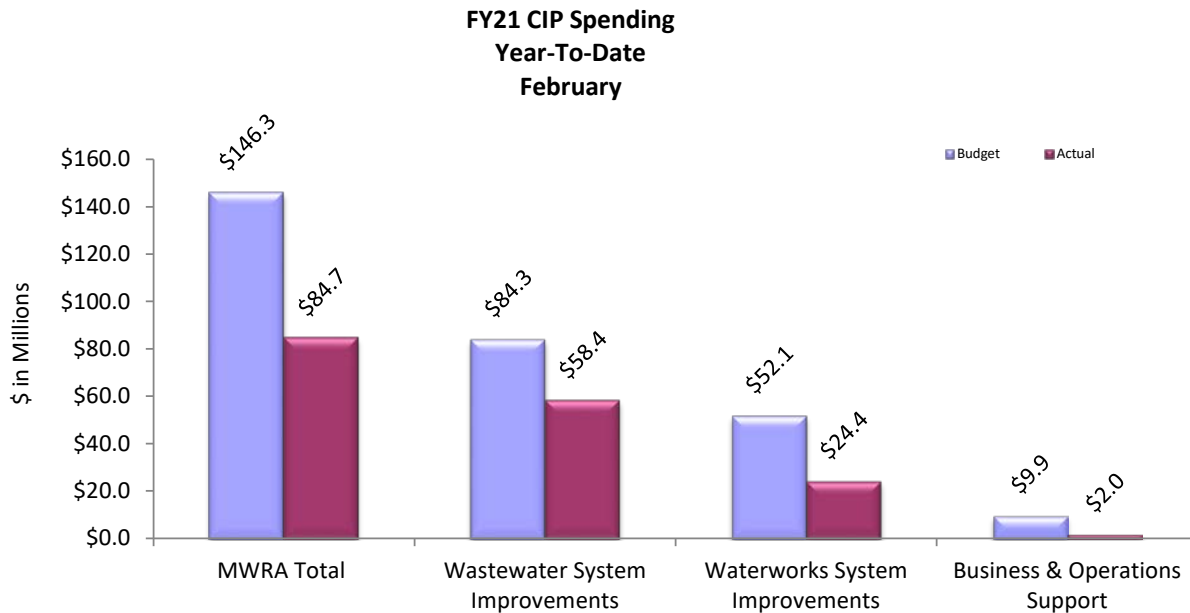
Revenue & Income

Revenues of \$534.0 million were \$616,000 or 0.1% over budget. Other Revenue was \$1.1 million or 23.5% over budget due to Energy Revenue (\$686,000), Disposal of surplus materials of \$242,000, Miscellaneous Revenue of \$172,000 primarily associated with worker's compensation reimbursement for older claims; \$68,000 in grant money; and \$42,000 for emergency water surcharges. In addition, Other User Charges were over the budget by \$90,000 primarily due to the entrance fee payments from the Rivers School in Weston and Crescent Ridge Dairy in Sharon. This was partially offset by lower Investment Income of \$603,000 or 17.9% due to lower than budgeted interest rates (0.48% vs. 0.71%) partially offset by higher than budgeted average balances.

FY21 Capital Improvement Program

Capital expenditures in Fiscal Year 2021 through February total \$84.7 million, \$61.6 million or 42.1% 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 \$64.1 million, \$30.5 million or 32.2% under budget.



Overall, CIP spending reflects the underspending in Wastewater Improvements (\$26.0 million), Waterworks (\$27.7 million), and Business and Operations Support (\$7.9 million). Major variances in Wastewater are primarily due to Channel 4 work being behind schedule and Covid-19 delays for the Chelsea Headworks Upgrades Construction and a time extension, delay in equipment delivery and Covid-19 shutdown for Nut Island Odor Control and HVAC Improvements, updated schedules for Prison Point Rehabilitation and the Dorchester Infiltration/Inflow Removal, timing of community repayments for the I/I Local Financial Assistance Program due to less than anticipated communities deferring their loan repayments, work anticipated in FY21 that was completed in FY20 for the Pellet Conveyance Piping project, and delay in NTP and bypass pumping system for the Dorchester Interceptor Sewer. This was partially offset by contractor progress for Deer Island Gas Protection System Replacement Phase 1, Gravity Thickener Rehabilitation, and Chemical Tank and Digester Pipe.

Waterworks variances are primarily due to less than anticipated communities deferring their loan repayments for the Water Loan Program, delay in award of CP-1 Shafts 6, 8, and 9A, timing of consultant work for the Tunnel Preliminary Design and MEPA Review and Program Support Services contracts. This was partially offset by contractor progress on both the Southern Extra

High Section 111 Construction 2 and 3, Section 56 Replacement/Saugus River - Design/CA, and Commonwealth Avenue Pumping Station Construction.

FY21 Budget and FY21 Actual Variance by Program
(in millions)

\$ in Millions	Budget	Actuals	\$ Var.	% Var.
Wastewater System Improvements				
Interception & Pumping	43.6	29.1	(14.5)	-33.3%
Treatment	11.6	11.1	(0.4)	-3.9%
Residuals	3.4	1.4	(2.0)	-59.5%
CSO	2.9	0.9	(1.9)	-67.6%
Other	22.9	15.9	(7.0)	-30.7%
Total Wastewater System Improvements	\$84.3	\$58.4	(\$26.0)	-30.8%
Waterworks System Improvements				
Drinking Water Quality Improvements	1.3	1.0	(0.3)	-26.2%
Transmission	10.7	9.2	(1.5)	-14.3%
Distribution & Pumping	12.2	8.8	(3.5)	-28.4%
Other	27.8	5.5	(22.4)	-80.4%
Total Waterworks System Improvements	\$52.1	\$24.4	(\$27.7)	-53.2%
Business & Operations Support	\$9.9	\$2.0	(\$7.9)	-79.8%
Total MWRA	\$146.3	\$84.7	(\$61.6)	-42.1%

Totals may not add due to rounding

FY21 Spending by Program:

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

Other Waterworks: Net underspending of \$22.4 million

- \$22.1 million for Local Financial Assistance due to timing of community repayments due to less than anticipated communities deferring their loan repayments.
- \$0.5 million for Carroll Water Treatment Plant SCADA Design due to updated schedule for the SCADA Construction.
- This underspending was partially offset by overspending of \$0.3 million for Cosgrove Intake Roof Replacement, \$0.2 million for Bellevue 2/Turkey Hill Tanks Painting, and \$0.1 million for Gillis Pumping Station/Cottage Farm CSO Roof Replacement due to FY20 planned work that was completed in FY21.

Interception & Pumping: Net underspending of \$14.5 million

- \$5.4 million for Chelsea Creek Upgrade Construction and Resident Engineering Inspection due to Channel 4 work behind schedule, Covid-19 delays and time extension.
- \$5.2 million for Prison Point Rehabilitation Construction due to updated schedule.
- \$1.5 million for Nut Island Odor Control and HVAC Construction due to delays in equipment delivery and Covid-19 shut down.
- \$1.3 million for Wastewater Metering Construction due to delay in award, and \$0.5 million for Wastewater Metering Planning/Design due to time extension through the construction installation and warranty period.

- \$0.9 million for Dorchester Interceptor Sewer Construction and CA/RI due to delays in Notice to Proceed and bypass pumping system, and snow delays.
- \$0.4 million for Prison Point Design/CA/REI due to delay in construction award.
- This underspending was partially offset by overspending of \$0.2 million for Siphon Structure Rehabilitation Design due to consultant progress.

Business & Operations Support: Net underspending of \$7.9 million

- \$2.4 million for As-Needed Technical Assistance and Resident Engineering and Inspection Services due to lower than projected task order work, \$1.3 million for Lawson Upgrade and \$1.0 million for Enterprise Content Management due to schedule changes, \$0.5 million for Security Equipment & Installation due to timing of physical security initiatives, and \$0.2 million for Vehicle Purchases due to timing.

Other Wastewater: Net underspending of \$7.0 million

- \$7.0 million for Community I/I Financial Assistance due to timing of community repayments as a result of less than anticipated communities deferring their loan repayments.

Water Distribution and Pumping: Net underspending of \$3.5 million

- \$2.2 million for Sections 23, 24, 47 Rehabilitation, and \$1.7 million for Section 89/29 Replacement – Construction and RE/RI Services due to schedule changes.
- \$0.3 million for Sections 50/57 Water due to contract scope reduction.
- \$0.3 million for NIH Section 89 and 29 Design/CA/RI due to less than anticipated contract administration/resident inspection budgeted spending.
- \$0.2 million for Sections 25, 75, 59, and 60 Design/CA due to delay in getting field testing started.
- This underspending was partially offset by overspending of \$1.1 million for Southern Extra High Section 111 Construction 2 and 3 due to contractor progress, \$0.4 million for Section 56 Replacement/Saugus River - Design/CA due to consultant progress.

Residuals: Net underspending of \$2.0 million

- \$1.5 million for Pellet Conveyance Piping Relocation and \$0.6 million for Residuals Mechanical/Electrical/Dryer Drum Replacements due to work anticipated in FY21 completed in FY20.

Combined Sewer Overflow: Net underspending of \$1.9 million

- \$2.0 million for Dorchester Inflow Removal Construction due to updated schedules partially offset by \$0.1 million for CSO Performance Assessment due to greater than anticipated consultant progress.

Waterworks Transmission: Net underspending of \$1.5 million

- \$1.5 million for CP-1 Shafts 6, 8, and 9A due to delay in award of contract and repair clamps issue.
- \$1.1 million for Tunnel Preliminary Design & MEPA Review and \$0.1 million for Program Support Services due to timing of consultant work.
- \$0.7 million for Weston Aqueduct Sluice Gates Construction due to updated schedule and delay in slide gate fabrication.

- \$0.6 million for River Road Improvements due to updated schedule.
- This underspending was partially offset by overspending of \$2.7 million for WASM 3 Rehabilitation, CP-1 and \$0.3 million for Commonwealth Avenue Pumping Station Construction due to contractor progress.

Wastewater Treatment: Net underspending of \$0.4 million

- \$0.8 million for less than anticipated as-needed task order work.
- This underspending was partially offset by overspending of \$0.4 million for Gravity Thickener Rehabilitation, \$0.4 million for Gas Protection System Replacement Phase 1, and \$0.2 million for Chemical Tank Relining and Digester Pipe Construction due to contractor progress.

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

- \$0.4 million for updated schedule for CP-7 Existing Facilities Modifications.
- This underspending was partially offset by overspending of \$0.1 million for Ancillary Modifications – Construction due to award being greater than budgeted.

Construction Fund Balance

The construction fund balance was \$26.9 million as of the end of February. Commercial Paper/Revolving Loan available capacity was \$222 million.

ATTACHMENTS:

Attachment 1 – Variance Summary February 2021

Attachment 2 – Current Expense Variance Explanations

Attachment 3 – Capital Improvement Program Variance Explanations

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

ATTACHMENT 1
FY21 Actuals vs. FY21 Budget

	Feb 2021 Year-to-Date				
	Period 8 YTD Budget	Period 8 YTD Actual	Period 8 YTD Variance	%	FY21 Approved
<u>EXPENSES</u>					
WAGES AND SALARIES	\$ 72,536,033	\$ 69,233,948	\$ (3,302,085)	-4.6%	\$ 112,919,298
OVERTIME	3,392,124	2,973,059	(419,065)	-12.4%	5,019,295
FRINGE BENEFITS	15,051,604	14,421,475	(630,129)	-4.2%	22,402,224
WORKERS' COMPENSATION	1,666,979	1,404,664	(262,315)	-15.7%	2,476,655
CHEMICALS	8,247,158	8,074,767	(172,391)	-2.1%	12,091,255
ENERGY AND UTILITIES	15,507,077	14,550,618	(956,459)	-6.2%	24,200,847
MAINTENANCE	21,472,276	21,000,850	(471,426)	-2.2%	32,618,569
TRAINING AND MEETINGS	205,603	84,972	(120,631)	-58.7%	405,264
PROFESSIONAL SERVICES	5,780,362	4,705,664	(1,074,698)	-18.6%	8,377,283
OTHER MATERIALS	3,271,015	3,893,296	622,281	19.0%	6,706,916
OTHER SERVICES	16,607,980	15,654,164	(953,816)	-5.7%	24,983,777
TOTAL DIRECT EXPENSES	\$ 163,738,211	\$ 155,997,477	\$ (7,740,734)	-4.7%	\$ 252,201,383
INSURANCE	\$ 2,059,089	\$ 2,221,030	\$ 161,941	7.9%	\$ 3,059,218
WATERSHED/PILOT	20,309,186	19,121,193	(1,187,993)	-5.8%	26,422,138
HEEC PAYMENT	4,856,385	7,872,125	3,015,740	62.1%	7,215,200
MITIGATION	1,139,078	1,111,962	(27,116)	-2.4%	1,692,344
ADDITIONS TO RESERVES	1,221,687	1,221,687	-	0.0%	1,815,077
RETIREMENT FUND	11,000,000	10,000,000	(1,000,000)	-9.1%	11,000,000
POST EMPLOYEE BENEFITS	-	-	-	---	6,065,490
TOTAL INDIRECT EXPENSES	\$ 40,585,425	\$ 41,547,997	\$ 962,571	2.4%	\$ 57,269,467
STATE REVOLVING FUND	\$ 61,875,878	\$ 58,963,735	\$ (2,912,143)	-4.7%	\$ 97,811,162
SENIOR DEBT	170,327,874	170,880,620	552,746	0.3%	258,730,904
DEBT SERVICE ASSISTANCE	-	-	-	---	-
CURRENT REVENUE/CAPITAL	-	-	-	---	16,200,000
SUBORDINATE MWRA DEBT	65,025,742	65,025,742	-	0.0%	96,339,598
LOCAL WATER PIPELINE CP	-	-	-	---	5,686,864
CAPITAL LEASE	2,165,329	2,165,329	-	0.0%	3,217,060
VARIABLE DEBT	-	(6,587,369)	(6,587,369)	---	-
DEFEASANCE ACCOUNT	-	8,946,765	8,946,765	---	3,900,000
DEBT PREPAYMENT	-	-	-	---	-
TOTAL DEBT SERVICE	\$ 299,394,823	\$ 299,394,823	\$ -	0.0%	\$ 481,885,588
TOTAL EXPENSES	\$ 503,718,459	\$ 496,940,297	\$ (6,778,163)	-1.3%	\$ 791,356,438
<u>REVENUE & INCOME</u>					
RATE REVENUE	\$ 517,855,288	\$ 517,855,288	\$ -	0.0%	\$ 769,385,000
OTHER USER CHARGES	6,324,134	6,413,868	89,734	1.4%	9,208,367
OTHER REVENUE	4,800,520	5,929,890	1,129,370	23.5%	6,095,403
RATE STABILIZATION	1,009,615	1,009,615	-	0.0%	1,500,000
INVESTMENT INCOME	3,363,768	2,761,130	(602,638)	-17.9%	5,167,668
TOTAL REVENUE & INCOME	\$ 533,353,325	\$ 533,969,791	\$ 616,467	0.1%	\$ 791,356,438

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY21 Budget YTD February	FY21 Actuals February	FY21 YTD Actual vs. FY21 Budget		Explanations
			\$	%	
Direct Expenses					
Wages & Salaries	72,536,033	69,233,948	(3,302,085)	-4.6%	Wages and Salaries are under budget by \$3.3 million. Year to date, there have been 24 fewer average FTEs (1,139 versus 1,163 budget), lower average new hire salaries versus retirees, the timing of backfilling vacant positions.
Overtime	3,392,124	2,973,059	(419,065)	-12.4%	Lower spending mainly in Field Operations (\$471,000) primarily in emergency and planned overtime with lower spending on emergency maintenance, CSO activation, planned off-hours maintenance, training and community assistance. TRAC (\$20,000) due to fewer responses to rain events and limited 8M permit inspections, and. Engineering & Construction (\$97,000), offset by higher spending for Deer Island (\$175,000) for shift coverage including Covid-19 coverage and unplanned maintenance including HEEC maintenance.
Fringe Benefits	15,051,604	14,421,475	(630,129)	-4.2%	Lower than budget in Health Insurance of \$563,000, 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. In addition, Medicare was under budget by \$47,000, partially offset by Unemployment Insurance which is over budget by \$40,000.due to unemployment fraud charges that are being disputed..
Worker's Compensation	1,666,979	1,404,664	(262,315)	-15.7%	The lower expenses were due to favorable variances in Compensation Payments of \$272,000,and Administrative Expenses of \$11,000, offset by Medical Payments of \$20,000. These lower payments reflect fewer accidents to date. Due to uncertainties of when spending will happen, the budget is spread evenly throughout the year.
Chemicals	8,247,158	8,074,767	(172,391)	-2.1%	Lower than budget spending on Sodium Hypochlorite of \$112,000 driven by Field Operations due to lower dosing at JCWTP; Sodium Bisulfite of \$83,000 driven by Wastewater Treatment; Polymer of \$63,000 driven by DITP due to less usage for centrifuge operations; and Soda Ash of \$48,000 driven by Water Operations of due to source water showing fluctuations in alkalinity, affecting the dose and Clinton Wastewater Treatment Plant due to timing of deliveries. This is offset by higher than budget spending on Carbon Dioxide of \$127,000 driven by Water Operations due to the force majeure surcharge and higher dose to meet pH target; and Hydrogen Peroxide of \$88,000 driven by DITP due to higher H2S gas levels.. DITP flows are 4.7% lower than the budget and CWTP flows are 0.23% higher 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	15,507,077	14,550,618	(956,459)	-6.2%	Underspending in Electricity of \$0.9 million primarily at DITP (\$0.5 million) driven primarily by lower pricing partially offset by usage, and real time energy and ancillary pricing has been lower under the Direct Energy contract.. Also, Water Operations (\$0.3 million) is under budget primarily due to lower rates and quantity.

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY21 Budget YTD February	FY21 Actuals February	FY21 YTD Actual vs. FY21 Budget		Explanations
			\$	%	
Maintenance	21,472,276	21,000,850	(471,426)	-2.2%	Underspending in Ongoing Maintenance by \$471,000 is largely driven by the timing of projects. Maintenance Materials which are under budget by (\$0.7 million), driven by Plant & Machinery Materials (\$0.5 million) primarily due to timing of materials including rolling stock and booster pumps, HVAC Materials (\$0.4 million) due to timing of purchases, Electrical Materials (\$0.2 million), and Special Equipment Materials (\$0.2 million), partially offset by Warehouse inventory (\$0.5 million) and Automotive Materials (\$0.1 million). Also, <i>Maintenance Services</i> are over budget by \$0.3 million driven by Plant and Machinery Services (\$1.3 million) driven by timing of work for several contracts including DITP painting and coatings partially offset by underspending in service contracts and Computer Software Licenses (\$0.2 million), partially offset by Building & Grounds Services (\$0.6 million) primarily due to underspending on service contracts and Special Equipment Services (\$0.2 million).
Training & Meetings	205,603	84,972	(120,631)	-58.7%	Lower than budget spending on Training & Meetings by \$121,000 is driven by MIS (\$47,000), Field Operations (\$29,000), DI (\$19,000), Engineering & Construction (\$9,000), and Procurement (\$8,000) primarily due to timing and conferences that were postponed or canceled.
Professional Services	5,780,362	4,705,664	(1,074,698)	-18.6%	Lower than budget spending in Computer Systems Consultant of \$1.0 million in MIS primarily due to timing delays of projects including Website Redesign, PIMS Power Builder, Landesk, and Crystal Report Writer; Engineering of \$296,000 primarily in Field Operations; Legal Services of \$156,000 in Law and Administration; partially offset by Lab and Testing Analysis of \$406,000 in Operations due to the Biobot contract.
Other Materials	3,271,015	3,893,296	622,281	19.0%	Driven by higher than budgeted spending of \$626,000 for Vehicle Purchases/Replacements due to timing, Computer Hardware of \$371,000 in MIS and \$127,000 for Health/Safety Materials both driven by purchases due to Covid-19, partially offset by \$199,000 for Other Materials , and \$130,000 for Vehicle Expense primarily due to less driving and lower fuel prices.
Other Services	16,607,980	15,654,164	(953,816)	-5.7%	Lower than budgeted spending for Sludge Pelletization of \$826,000 due to lower year-to-date quantities; Grit & Screening Removal of \$93,000 due to lower quantities, and Telecommunication Services of \$88,000 primarily in MIS, partially offset by higher than budgeted spending for Other Services of \$144,000 primarily in Water Operations due to the Brookline water pipeline break.
Total Direct Expenses	163,738,211	155,997,477	(7,740,734)	-4.7%	

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY21 Budget YTD February	FY21 Actuals February	FY21 YTD Actual vs. FY21 Budget		Explanations
			\$	%	
Indirect Expenses					
Insurance	2,059,089	2,221,030	161,941	7.9%	Higher premiums received for property and excess general liability (\$249,000) offset by Lower Payments/Claims costs (\$87,000).
Watershed/PILOT	20,309,186	19,121,193	(1,187,993)	-5.8%	Watershed costs are lower than budget by \$1.2 million due to lower costs associated with Wages and Salaries, Maintenance, Fringe Benefits, Equipment, and Professional Services, and partially offset by a prior period adjustment.
HEEC Payment	4,856,385	7,872,125	3,015,740	62.1%	Increase is due to updated cost for HEEC capacity and service charge.
Mitigation	1,139,078	1,111,962	(27,116)	-2.4%	
Addition to Reserves	1,221,687	1,221,687	-	0.0%	
Pension Expense	11,000,000	10,000,000	(1,000,000)	-9.1%	After approval of the FY21 CEB, the retirement system received a new PERAC approved required contribution. The required deposit was reduced from \$11.0 million to \$10.0 million.
Post Employee Benefits	-	-	-		
Total Indirect Expenses	40,585,425	41,547,997	962,572	2.4%	
Debt Service					
Debt Service	299,394,823	299,394,823	-	0.0%	\$8.9 million was transferred to the defeasance account reflecting lower than budgeted interest expenses of \$6.6 million due to lower interest rates and lower SRF spending of \$2.9 million as a result of timing, and higher than anticipated Senior Debt of \$0.6 million.
Debt Service Assistance	-	-	-		
Total Debt Service Expenses	299,394,823	299,394,823	-	0.0%	
Total Expenses					
Total Expenses	503,718,459	496,940,297	(6,778,162)	-1.3%	

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY21 Budget YTD February	FY21 Actuals February	FY21 YTD Actual vs. FY21 Budget		Explanations
			\$	%	
Revenue & Income					
Rate Revenue	517,855,288	517,855,288	-	0.0%	
Other User Charges	6,324,134	6,413,868	89,734	1.4%	Rivers School in Weston entrance fee of \$42,000 and Crescent Ridge Dairy in Sharon of \$34,000, and other user charges of \$14,000.
Other Revenue	4,800,520	5,929,890	1,129,370	23.5%	Energy Revenue (\$686,000); Disposal of surplus materials of \$242,000; Miscellaneous Revenue of (\$172,000) primarily associated with worker's compensation reimbursement for older claims; (\$68,000) in grant money, and \$42,000 for emergency water supply surcharge.
Rate Stabilization	1,009,615	1,009,615	-	0.0%	HEEC Reserve.
Investment Income	3,363,768	2,761,130	(602,638)	-17.9%	Investment Income is under budget due to lower than budgeted interest rates (0.48% actual vs. 0.71% budget) partially offset by higher than budgeted average balances.
Total Revenue	533,353,325	533,969,791	616,466	0.12%	
Net Revenue in Excess of Expenses	29,634,866	37,029,494	7,394,628		

**ATTACHMENT 3
FY21 CIP Year-to-Date Variance Report (\$000's)**

	FY21 Budget YTD February	FY21 Actuals YTD February	YTD Actuals vs. Budget		Explanations
			\$	%	
Wastewater					
Interception & Pumping (I&P)	\$43,561	\$29,053	(\$14,508)	-33.3%	<u>Underspending</u> Chelsea Creek Headworks Upgrades - Construction and REI: \$5.4M (delay in work on Channel 4, Covid-19 delays, and time extension) Prison Point Rehabilitation - Construction; \$5.2M (updated schedule) Nut Island Odor Control & HVAC Improvements Phase 2 - Construction: \$1.5M (delays in equipment delivery and Covid-19 shut down) Interceptor Renewal No. 3, Dorchester Interceptor Sewer - Construction and CA/RI: \$900k (delay in notice-to-proceed and bypass pumping system, and snow delay) Wastewater Meter System Equipment Replacement: \$1.3M (delay in award) Wastewater Meter System Planning/Study/Design: \$472k (due to time extension through construction installation and warranty period) Prison Point Rehabilitation - Design/CA/RI: \$372k (delay in construction award) <u>Offset Overspending</u> Siphon Structure Rehabilitation Design: \$210k (consultant progress)
Treatment	\$11,566	\$11,117	(\$449)	-3.9%	<u>Underspending</u> As-Needed Design: \$784k (less than anticipated task order work) Miscellaneous VFD Replacements FY19-FY23: \$200k (timing of work) Clarifier Rehabilitation Phase 2 - Design: \$157k, and MCC Switchgear Replacement - Design/ESDC/REI: \$169k (updated construction schedules) SSPS VFD Replacement - Design/ESDC/REI: \$113k (updated schedule) <u>Offset Overspending</u> Gas Protection System Replacement - Phase 1: \$418k, Gravity Thickener Rehabilitation: \$350k, and Chemical Tank and Digester Pipe: \$188k (contractor progress) CHP Alternatives Study: \$218k (timing of work) Radio Repeater System Upgrade - Phase 1: \$138k (work anticipated in FY20 completed in FY21)
Residuals	\$3,421	\$1,386	(\$2,035)	-59.5%	<u>Underspending</u> Pellet Conveyance Relocation: \$1.5M, and Residuals Mechanical/Electrical/Dryer Drum Replacements: \$568k (work anticipated in FY21 completed in FY20)
CSO	\$2,852	\$925	(\$1,927)	-67.6%	<u>Underspending</u> Dorchester Inflow Removal Construction: \$2.0M (updated schedules) <u>Offset Overspending</u> CSO Performance Assessment: \$123k (consultant progress)

**ATTACHMENT 3
FY21 CIP Year-to-Date Variance Report (\$000's)**

	FY21 Budget YTD February	FY21 Actuals YTD February	YTD Actuals vs. Budget		Explanations
			\$	%	
Other Wastewater	\$22,917	\$15,874	(\$7,043)	-30.7%	<u>Underspending</u> I/I Local Financial Assistance: \$7.0M (timing of community repayments as a result of less than anticipated communities deferring loan repayments)
Total Wastewater	\$84,317	\$58,355	(\$25,962)	-30.8%	

**ATTACHMENT 3
FY21 CIP Year-to-Date Variance Report (\$000's)**

	FY21 Budget YTD February	FY21 Actuals YTD February	YTD Actuals vs. Budget		Explanations
			\$	%	
Waterworks					
Drinking Water Quality Improvements	\$1,314	\$970	(\$344)	-26.2%	<u>Underspending</u> CP-7 Existing Facilities Modifications: \$375k (updated schedule) Carroll Water Treatment Plant Technical Assistance: \$320k (timing of task order work) <u>Offset Overspending</u> Ancillary Modifications - Construction: \$122k (contract awarded greater than budgeted)
Transmission	\$10,711	\$9,180	(\$1,531)	-14.3%	<u>Underspending</u> CP-1 Shafts 6, 8, and 9A: \$1.5M (delay in award of contract and repair clamps issue) Metropolitan Tunnel Redundancy Preliminary Design & MEPA Review: \$1.1M, and Program Support Services: \$106k (timing of consultant work) Weston Aqueduct Sluice Gates - Construction: \$698k (delay in slide gate fabrication and updated schedule), and River Road Improvements-Wachusett: \$606k (updated schedule) Watershed Land: \$308k (timing of purchases) <u>Offset Overspending</u> WASM 3 Rehabilitation, CP-1: \$2.7M (contractor progress) Commonwealth Ave Pump Station Improvements - Construction: \$277k, (contractor progress)

ATTACHMENT 3
FY21 CIP Year-to-Date Variance Report (\$000's)

	FY21 Budget YTD February	FY21 Actuals YTD February	YTD Actuals vs. Budget		Explanations
			\$	%	
Distribution & Pumping	\$12,226	\$8,753	(\$3,473)	-28.4%	<u>Underspending</u> CP3-Sections 23, 24, 47 Rehabilitation and CA/RI: \$2.2M, and Section 89/29 Replacement - Construction, and RE/RI Services: \$1.7M (schedule changes) Sections 25, 75, 59 & 60 Replacement - Design/CA: \$167k (delay in commencement of field testing) Sections 50 & 57 Water Rehabilitation - Design/ESDC; \$264k (contract scope reduction) NEH Improvements Design & ESDC: \$214k (updated schedule) Section 89/29 Redundancy -Design/CA/RI: \$250k (Construction Administration and Resident Inspection services less than anticipated budgeted spending) <u>Offset Overspending</u> SEH Redundancy Pipeline Section 111 - Construction Phase 2 & 3: \$1.1M (contractor progress) Section 56 Replacement/Saugus River - Design/CA: \$440K (consultant progress) Section 89/29 Redundancy Construction Phase 2: \$87k (final work completed)
Other Waterworks	\$27,847	\$5,467	(\$22,380)	-80.4%	<u>Underspending</u> Local Water Pipeline Financial Assistance Program: \$22.1M (primarily due timing of community repayments due to less than anticipated communities deferring their loan repayments) CWTP SCADA Upgrades - Design Programming RE: \$525k (updated schedule for SCADA Construction) Steel Tank Improvements - Design/CA: \$226k (delay in award) <u>Offset Overspending</u> Cosgrove Intake Roof Replacement: \$266k, Bellevue 2/Turkey Hill Tanks Painting: \$177k, and Gillis Pump Station/Cottage Farm CSO Roof Replacements: \$141k (FY20 planned work completed in FY21)
Total Waterworks	\$52,098	\$24,370	(\$27,728)	-53.2%	
Business & Operations Support					
Total Business & Operations Support	\$9,873	\$1,993	(\$7,880)	-79.8%	<u>Underspending</u> As-Needed Technical Assistance and CS/REI Services: \$2.4M (lower than projected task order work) Lawson Upgrade: \$1.3M, Enterprise Content Management: \$998k, MAXIMO Interface Enhancements: \$328k, Telephone System Upgrade: \$298k, and Instrumentation & Controls IT: \$198k (schedule changes) Security Equipment & Installation: \$461k (timing of physical security initiatives) FY19-23 Vehicle Purchases: \$222k (due to timing)

**ATTACHMENT 3
FY21 CIP Year-to-Date Variance Report (\$000's)**

	FY21 Budget YTD February	FY21 Actuals YTD February	YTD Actuals vs. Budget		Explanations
			\$	%	
Total MWRA	\$146,288	\$84,718	(\$61,570)	-42.1%	


Attachment 4
FY21 Budget vs. FY21 Projection

TOTAL MWRA	FY21 Budget	FY21 Projection	Change FY21 Budget vs FY21 Projection	
			\$	%
EXPENSES				
WAGES AND SALARIES	\$ 112,919,297	\$ 108,224,204	\$ (4,695,093)	-4.2%
OVERTIME	5,019,296	4,948,638	(70,658)	-1.4%
FRINGE BENEFITS	22,402,224	21,536,592	(865,632)	-3.9%
WORKERS' COMPENSATION	2,476,655	2,000,018	(476,637)	-19.2%
CHEMICALS	12,091,255	12,069,541	(21,714)	-0.2%
ENERGY AND UTILITIES	24,200,846	23,246,152	(954,694)	-3.9%
MAINTENANCE	32,618,569	32,927,928	309,358	0.9%
TRAINING AND MEETINGS	405,264	189,676	(215,588)	-53.2%
PROFESSIONAL SERVICES	8,377,283	6,539,644	(1,837,639)	-21.9%
OTHER MATERIALS	6,706,916	6,870,184	163,268	2.4%
OTHER SERVICES	24,983,777	24,245,984	(737,793)	-3.0%
TOTAL DIRECT EXPENSES	\$ 252,201,383	\$ 242,798,562	\$ (9,402,821)	-3.7%
INSURANCE	\$ 3,059,218	\$ 3,224,058	164,840	5.4%
WATERSHED/PILOT	26,422,138	25,108,346	(1,313,792)	-5.0%
HEEC PAYMENT	7,215,200	10,431,993	3,216,793	44.6%
MITIGATION	1,692,344	1,652,058	(40,286)	-2.4%
ADDITIONS TO RESERVES	1,815,077	1,815,077	-	0.0%
RETIREMENT FUND	11,000,000	10,000,000	(1,000,000)	-9.1%
POSTEMPLOYMENT BENEFITS	6,065,490	6,065,490	-	0.0%
TOTAL INDIRECT EXPENSES	\$ 57,269,467	\$ 58,297,022	\$ 1,027,555	1.8%
STATE REVOLVING FUND	\$ 97,811,162	\$ 97,811,162	-	0.0%
SENIOR DEBT	258,730,904	255,429,061	(3,301,843)	-1.3%
SUBORDINATE DEBT	96,339,599	86,657,940	(9,681,659)	-10.0%
LOCAL WATER PIPELINE CP	5,686,864	2,680,950	(3,005,914)	-52.9%
CURRENT REVENUE/CAPITAL	16,200,000	16,200,000	-	0.0%
CAPITAL LEASE	3,217,060	3,217,060	-	0.0%
DEBT PREPAYMENT	3,900,000	3,900,000	-	0.0%
TOTAL DEBT SERVICE	\$ 481,885,588	\$ 465,896,172	\$ (15,989,416)	-3.3%
TOTAL EXPENSES	\$ 791,356,438	\$ 766,991,756	\$ (24,364,682)	-3.1%
REVENUE & INCOME				
RATE REVENUE	\$ 769,385,000	\$ 769,385,000	-	0.00%
OTHER USER CHARGES	9,208,367	9,253,367	45,000	0.5%
OTHER REVENUE	6,095,403	6,887,806	792,402	13.0%
RATE STABILIZATION	1,500,000	1,500,000	-	0.0%
INVESTMENT INCOME	5,167,668	4,341,478	(826,190)	-16.0%
TOTAL REVENUE & INCOME	\$ 791,356,438	\$ 791,367,650	\$ 11,212	0.0%

VARIANCE:

\$ (24,375,894) \$ (24,375,894)

STAFF SUMMARY

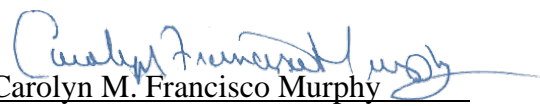
TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: March 17, 2021
SUBJECT: Appointment of Proxy for Fore River Railroad Corporation


COMMITTEE: Administration, Finance & Audit

INFORMATION

VOTE

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


Carolyn M. Francisco Murphy
General Counsel


Thomas J. Durkin
Director of Finance

RECOMMENDATION:

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

David W. Coppes
Carolyn M. Fiore
Frederick A. Laskey
John J. Walsh

Thomas J. Durkin
Michele S. Gillen
Carolyn M. Francisco Murphy

Godfrey O. Ezeigwe
Lisa R. Grollman
Brian Peña

DISCUSSION:

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

The primary purpose of the proxy for the stockholders at the Annual Stockholders' meeting is to elect the FRRC Board of Directors as set forth on the Shareholder's Annual Meeting Agenda. Each Director's term extends until the next annual meeting. The FRRC by-laws state that the Board shall consist of a minimum of five members.

The current Board Members are listed below:

David W. Coppes
Carolyn M. Fiore
Frederick A. Laskey
John J. Walsh

Thomas J. Durkin
Michele S. Gillen
Carolyn M. Francisco Murphy

Godfrey O. Ezeigwe
Lisa R. Grollman
Brian Peña

Staff recommend that the current members be reappointed to serve on the FRRC Board in 2021.

ATTACHMENT:

Form of Proxy

FORE RIVER RAILROAD CORPORATION
PROXY

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

David W. Coppes
Carolyn M. Fiore
Frederick A. Laskey
John J. Walsh

Thomas J. Durkin
Michele S. Gillen
Carolyn M. Francisco Murphy

Godfrey O. Ezeigwe
Lisa R. Grollman
Brian Peña

MASSACHUSETTS WATER RESOURCES
AUTHORITY

By: _____
Kathleen A. Theoharides
Chairman
Board of Directors

Dated: Boston, Massachusetts
March 17, 2021

Massachusetts Water Resources Authority: 1,470 Shares

STAFF SUMMARY


TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: March 17, 2021
SUBJECT: Harbor Outfall Monitoring and Loading System Upgrade
Guild Systems, Inc.
Contract 7653



COMMITTEE: Administration, Finance, & Audit

 INFORMATION
 X VOTE

Paula Weadick, MIS Director
Giri Narayanan, App & Sys Development Manager
Jan Lemeshuk, Program Manager
Preparer/Title


Michele S. Gillen
Director of Administration

RECOMMENDATION:

To approve the recommendation of the Selection Committee to award Contract 7653, Harbor Outfall Monitoring and Loading System Upgrade, to Guild Systems Inc., and authorize the Executive Director, on behalf of the Authority to execute said contract in an amount not to exceed \$195,640, for a contract term of six months, which includes a three month warranty period, from the Notice to Proceed.

DISCUSSION:

The Outfall Monitoring and Loading (HOML) application is used by MWRA-contracted laboratories to submit the Boston Harbor's monitoring sample data in a required format to the MWRA ENQUAL department. The HOML application allows laboratory staff to validate the sample data before final submission and MWRA reporting. The existing custom-built HOML application was developed to meet EPA compliance requirements and went live in February 2006. The HOML application now requires upgrades to its components to provide compatibility with updated web browsers (Microsoft Edge and Google Chrome), new infrastructure, additional database information, upgraded code, and security remediation to address vulnerabilities in the current form of the application, all in accordance with IT best practices. No functionality changes will occur during this upgrade.

Procurement Process

On October 21, 2020, MWRA issued a one-step Request for Qualifications Statements/Proposals (RFQ/P) that was publicly advertised in the Goods & Services Bulletin, the Boston Herald, Banner Publications, and El Mundo. Notifications of the procurement went to 186 firms via the MWRA Supplier Portal and six firms became plan holders. The RFQ/P included the following evaluation

criteria and points: Cost (25 points); Qualifications and Key Personnel (24 points); Experience/Past Performance on similar MWRA and Non-MWRA Projects and Past Performance on MWRA Projects (23 points); Technical Approach (23 points); and Minority/Women Business Enterprises (5 points).

On December 11, 2020, MWRA received two proposals. The costs proposed are compared with the internal Engineer's Estimate below.

<u>Proposer</u>	<u>Cost</u>
<i>MWRA Engineer's Estimate</i>	\$160,000
Datamatics Global Services Inc.	\$124,400
Guild Systems Inc	\$175,640

The Selection Committee met on December 17, 2020 to evaluate and rank the proposals. The results are presented below.

Proposer	Total Points	Order of Preference	Final Ranking
Datamatics Global Services Inc.	390	7	1
Guild Systems Inc.	399	8	2

*Order of Preference represents the sum of individual Selection Committee members' rankings where the firm receiving the highest number of points is assigned a "1," the firm receiving the next highest number of points is assigned a "2" and so on.

The Selection Committee initially planned to recommend Datamatics Global Services Inc. for award of this contract as the firm was first-ranked based on the sum of the Order of Preference. However, the Selection Committee was made aware of the necessity of certain changes in contract language and staffing location requirements. Particularly, because of the recent breach of government and private sector systems by off shore actors, work on this application would have to occur in the U.S.

The Selection Committee met again on December 21, 2020 and decided, based on a review of the proposals by the MIS and Procurement Directors, that because the original RFQ/P was not clear that the services had to be completed by U.S. based firms and staff, a Best and Final Offer process would be initiated. That process would allow the Authority to inform the proposers of the certainty of the staffing location requirements and allow the proposers to submit revised Best and Final Offer proposals that addressed the location requirements.

On January 8, 2021, MWRA received the Best and Final Offer proposals. The revised costs proposed in the BAFO as compared to the original MWRA Engineer's Estimate as set forth below.

<u>Proposer</u>	<u>Cost</u>
<i>MWRA Engineer's Estimate</i>	\$160,000
Guild Systems Inc.	\$195,640
Datamatics Global Services Inc.	\$424,400

The Selection Committee met on January 12, 2021 to evaluate and rank the Final Offer proposals; the results are presented below.

Proposer	Total Points	Order of Preference	Final Ranking
Guild Systems Inc.	402	5	1
Datamatics Global Services Inc.	331	10	2

Based on the scoring, the Selection Committee recommends Guild Systems Inc. (Guild Systems) for award of this contract as the firm was first-ranked based on having the highest points, and the lowest Order of Preference.

When comparing the costs of the Best and Final Offer proposals from both firms, the Committee agreed that Guild Systems' cost proposal was more reasonable than those of Datamatics in terms of hours and rate per hour. While both firms listed qualified teams with the ability to handle the tasks for this project, there was a significant question about the staffing that Datamatics would actually use. Both firms had non-Authority based experience and their technical approaches were deemed essentially equal. However, it appears that Datamatics perceived the scope of work differently in its Best and Final Offer proposal.

Guild Systems is a California-based small firm active since 2005. In its proposal, Guild Systems principals provided that the company and its staff members have over 15 years of experience in application integration and modernization. Guild Systems staff's resumes show experience with providing complex migration of Java enterprise edition applications as well as experience in various environments on relevant and similar projects. References received demonstrated that Guild Systems is an IBM Lab Partner and has worked on state-level projects.

Based on the final rankings and the reasons set forth above, the Selection Committee recommends award of this contract to Guild Systems Inc. for an amount not to exceed \$195,640. The contract term of six months will include a three month warranty period.

BUDGET/FISCAL IMPACT:

The FY21 Capital Improvement Program has a budget of \$150,000 for this contract. Additional funds will be requested in the FY22 Capital Improvement Plan.

MBE/WBE PARTICIPATION:

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