



MASSACHUSETTS WATER RESOURCES AUTHORITY

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

Posted 05/21/2020
11:30 AM

Frederick A. Laskey
Executive Director

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BOARD OF DIRECTORS' MEETING

To be Held Virtually May 27, 2020

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

WebEx Meeting Link:

<https://mwra.my.webex.com/mwra.my/j.php?MTID=mee9897f04c18e903f8f75b58c4349625>

Meeting number (access code): 126 736 7031
Meeting password: May272020

Time:

1:00 p.m.

AGENDA

- I. **APPROVAL OF MINUTES**
- II. **REPORT OF THE CHAIR**
- III. **REPORT OF THE EXECUTIVE DIRECTOR**
- IV. **ADMINISTRATION, FINANCE & AUDIT COMMITTEE**
 - A. **Information**
 1. MWRA's FY2021 Draft Final FY2021 CIP (Presentation)
 2. FY2020 Third Quarter Orange Notebook
 3. Delegated Authority Report – February, March and April 2020
 4. FY2020 Financial Update and Summary as of April 2020
 - B. **Approvals**
 1. Approval of Lease for Records Storage Space: 23 & 27 Production Road LLC
 - C. **Contract Awards**
 1. MWRA FY2021 Insurance Program Renewal

D. Contract Amendments/Change Orders

1. Main Line Adjustment Project, Fore River Railroad: J.F. White Contracting Co., Contract FRR32, Change Order 3

V. WASTEWATER POLICY & OVERSIGHT COMMITTEE

A. Contract Awards

1. Wastewater Advisory Committee Contract
2. Grit and Screenings Hauling, Deer Island Treatment Plant: W. L. French, Contract S595
3. Extended Warranty, Service and Maintenance Agreement for the Process Instrumentation and Control System at the Deer Island Treatment Plant: ABB Automation, Inc.

VI. WATER POLICY & OVERSIGHT COMMITTEE

A. Information

1. 2019 Annual Water Quality Report (Consumer Confidence Report)

B. Approvals

2. Local Water System Assistance Program – Approval of Water Loan Program Guidelines Revisions for City of Quincy

C. Contract Awards

1. Water Supply Citizens Advisory Committee Contract
2. Supply and Delivery of Sodium Hypochlorite for the John J. Carroll Water Treatment Plant and the William A. Brutsch Treatment Facility: Univar USA, Inc., Bid WRA-4834
3. Metropolitan Tunnel Redundancy Program Preliminary Design, Geotechnical Investigation and Environmental Impact Report: CDM Smith, Inc. Contract 7159

VII. PERSONNEL & COMPENSATION COMMITTEE

A. Approvals

1. PCR Amendments – May 2020
2. Appointment of Manager, Finance and Administration, Operations

B. Annual Meeting of the Personnel and Compensation Committee Independent of Management

1. Authority Accountability and Transparency Act Compliance

VIII. CORRESPONDENCE TO THE BOARD

IX. OTHER BUSINESS

- A. Review and Extension of Contract for Executive Director

X. EXECUTIVE SESSION

XI. ADJOURNMENT

MASSACHUSETTS WATER RESOURCES AUTHORITY
Meeting of the Board of Directors
March 18, 2020

Pursuant to Governor Baker's March 12, 2020 Order Suspending Certain Provisions of the Open Meeting Law the March 18, 2020 meeting of the Board of Directors of the Massachusetts Water Resources Authority was held 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, Pappastergion, Peña, Vitale and Walsh. Chair Theoharides and Mr. Foti were absent. In accordance with social distancing guidelines for the COVID-19 pandemic, a limited number of MWRA staff participated in-person at the Authority headquarters in Charlestown: 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, and Assistant Secretary Ria Convery. Joseph Favaloro, MWRA Advisory Board, also attended person. Kristin MacDougall, Assistant Secretary, MWRA staff and members of the public participated remotely. The meeting was called to order at 1:04 p.m.

APPROVAL OF FEBRUARY 19, 2020 MINUTES

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		
Flanagan		
Pappastergion		
Peña		
Vitale		
Wolowicz		

Voted: to approve the minutes of February 19, 2020 Board of Directors' Meeting as presented and filed with the records of the meeting.

REPORT OF THE EXECUTIVE DIRECTOR

Mr. Laskey briefed Board Members on MWRA's measures to safeguard staff and continue operations throughout the ongoing COVID-19 pandemic including telework and

working with union officials on tactics to ensure the safety of field crews. There was discussion and questions and answers. (Messrs. Cook, Cotter and Walsh joined the meeting during the briefing and discussion.)

APPROVALS

Approval of PCR Amendments – March 2020

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		
Flanagan		
Pappastergion		
Peña		
Vitale		
Walsh		
Wolowicz		

Voted: to approve amendment to the Position Control Register (PCR) as presented and filed with the records of the meeting (ref. P&C A.1)

Amendments to Capital Finance Management Policy

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		
Flanagan		
Pappastergion		
Peña		
Vitale		
Walsh		
Wolowicz		

Voted: that in compliance with the State Finance and Governance Board's regulations (976 CMR 2.04), the Board adopt the amendments to the Capital Finance Management Policy, substantially in the form filed with the records of the meeting. (ref. AF&A B.1)

Staff gave a brief summary of financial information relating to the pandemic.

Approval of the Eighty-Second Supplemental Bond Resolution

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		
Flanagan		
Pappastergion		
Peña		
Vitale		
Walsh		
Wolowicz		

Voted: to adopt the Eighty-Second Supplemental Resolution authorizing the issuance of up to \$75,000,000 of Massachusetts Water Resources Authority Subordinated General Revenue Bonds and the supporting issuance resolution. (ref. AF&A B.2)

Approval of the Eighty-Third Supplemental Resolution

Staff made a verbal presentation. There was brief discussion.

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

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
Carroll		
Cook		
Cotter		
Flanagan		
Pappastergion		

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

Voted: to adopt the Eighty-Third Supplemental Resolution authorizing the issuance of up to \$390,000,000 of Massachusetts Water Resources Authority Taxable and Tax-Exempt General Revenue Bonds and General Revenue Refunding Bonds and the supporting Issuance Resolution. (ref. AF&A A.4)

Memorandum of Agreement between MWRA and the Town of Arlington Regarding Contract 6544 - Rehabilitation of WASM 3

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		
Flanagan		
Pappastergion		
Peña		
Vitale		
Walsh		
Wolowicz		

Voted: to authorize the Executive Director, on behalf of the Authority, to execute a Memorandum of Agreement with the Town of Arlington regarding Contract 6544, Rehabilitation of WASM 3, substantially in the form as presented and filed with the records of the meeting, related to cost sharing between the Town of Arlington and the Authority for construction costs associated with the reconstruction of Broadway Plaza. (ref. W B.1)

CONTRACT AWARDS

Employee Assistance Program Services: AllOne Health Resources Inc., Contract A625

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		
Flanagan		
Pappastergion		
Peña		
Vitale		
Walsh		
Wolowicz		

Voted: to approve the recommendation of the Selection Committee to award Contract A625, Employee Assistance Services, to AllOne Health Resources, Inc., and to authorize the Executive Director on behalf of the Authority to execute said contract in an amount not-to-exceed \$26,171 for a one-year period, commencing April 1, 2020; and to further authorize the Executive Director to exercise a single three-year option to renew the contract if recommended by staff, in an amount not to exceed \$81,459. Actual annual cost is based on an established per employee unit rate and the total employee count as of January 1 of each year as well as the anticipated number of mandatory substance abuse professional referrals, training and facilitation hours utilized. (ref. P&C B.1)

Disclosure Counsel Services: Mccarter & English, LLP. Contract F255

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		
Flanagan		
Pappastergion		
Peña		
Vitale		
Walsh		
Wolowicz		

Voted: to approve the recommendation of the Consultant Selection Committee to award Contract F255 to McCarter & English, LLP for Disclosure Counsel Services and to authorize the Executive Director, on behalf of the Authority, to execute Contract F255

in an amount not to exceed \$637,100 and for a term from the date indicated in the Notice to Proceed to June 30, 2024. (ref. AF&A C.1)

Deer Island Demand Response Services: Direct Energy Business Marketing, LLC, Contract S594

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		
Flanagan		
Pappastergion		
Peña		
Vitale		
Walsh		
Wolowicz		

Voted: to approve the award of Contract S594, Deer Island Demand Response Services, to Direct Energy Business Marketing, LLC, and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of six percent of the revenue received from ISO New England for a three-year term from June 1, 2024 through May 31, 2027. (ref. AF&A C.2)

Sole Source Purchase Order for One Year of Maintenance and Support of the Integrated Financial, Procurement and Human Resources/Payroll Management System, Infor Inc.

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		
Flanagan		
Pappastergion		
Peña		
Vitale		

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
Walsh		
Wolowicz		

Voted: to approve the award of a sole source purchase order contract for the annual maintenance and support of the integrated financial, procurement and human resources/payroll management system to Infor Inc. and to authorize the Executive Director to execute said purchase order contract in an amount not to exceed \$479,960.16 for a period of one year, from June 1, 2020 through May 31, 2021. (ref. AF&A C.3)

Dorchester Interceptor Sewer Rehabilitation: Sections 240/241/242, Michels Corporation, Contract 7279

There was brief discussion and questions and answers.

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		
Flanagan		
Pappastergion		
Peña		
Vitale		
Walsh		
Wolowicz		

Voted: to approve the award of Contract 7279, Dorchester Interceptor Sewer Rehabilitation, Sections 240/241/242, to the lowest responsible and eligible bidder, Michels Corporation, and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of \$4,707,485, with a contract term of 540 calendar days from the Notice to Proceed. (ref. WW B.1)

Electrical Testing and Technical Services - Metropolitan Boston: Infra-Red Building and Power Service, Inc., Contract OP-409

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		
Flanagan		
Pappastergion		
Peña		
Vitale		
Walsh		
Wolowicz		

Voted: to approve the award of Contract OP-409, Electrical Testing and Technical Services - Metropolitan Boston, to the lowest, responsive bidder, Infra-Red Building and Power Service, Inc., and authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of \$658,802, for a contract term of 1,095 calendar days from the Notice to Proceed. (ref. WW B.2)

Diver Assisted Suction Harvesting of Invasive Aquatic Plants at Wachusett Reservoir Lower Basins and Coves, 2020 Season: AE Commercial Diving Services, WRA-4814

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		
Flanagan		
Pappastergion		
Peña		
Vitale		
Walsh		
Wolowicz		

Voted: to approve the award of a purchase order contract for the control of invasive plants in the Wachusett Reservoir lower basins and main reservoir coves to the lowest responsive bidder under Bid WRA-4814, AE Commercial Diving Services, and to authorize the Executive Director, on behalf of the Authority, to execute said purchase order contract in the bid amount of \$375,200 for a term of six months from July 1, 2020 to November 30, 2020. (ref. W C.1)

CONTRACT AMENDMENTS/CHANGE ORDERSChelsea Creek Headworks Upgrade: BHD/BEC 2015, A Joint Venture, Contract 7161, Change Order 36

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		
Flanagan		
Pappastergion		
Peña		
Vitale		
Walsh		
Wolowicz		

Voted: to authorize the Executive Director, on behalf of the Authority, to approve Change Order 36 to Contract 7161, Chelsea Creek Headworks Upgrade, with BHD/BEC2015, A Joint Venture, for an amount not to exceed \$144,652.00, increasing the contract amount from \$82,664,390.06 to \$82,809,042.06, with no increase in contract term.

Further, voted: 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. (ref. WW C.1)

CSO Post-Construction Monitoring and Performance Assessment: AECOM Technical Services, Inc., Contract 7572, Amendment 2

Staff made a verbal presentation.

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		
Flanagan		

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
Pappastergion		
Peña		
Vitale		
Walsh		
Wolowicz		

Voted: to authorize the Executive Director, on behalf of the Authority, to approve Amendment 2 to Contract 7572, CSO Post-Construction Monitoring and Performance Assessment with AECOM Technical Services, Inc., to increase the contract amount by \$1,431,700 from \$3,852,705 to \$5,284,405 with no increase in contract term. (ref. WW C.2)

Northern Intermediate High Section 110 – Stoneham: Albanese D&S Inc., Contract 7067, Change Order 13

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		
Flanagan		
Pappastergion		
Peña		
Vitale		
Walsh		
Wolowicz		

Voted: to authorize the Executive Director, on behalf of the Authority, to approve Change Order 13 to Contract 7067, Northern Intermediate High Section 110 Stoneham, with Albanese D&S Inc., for an amount not to exceed \$75,000, increasing the contract amount from \$25,342,047.60 to \$25,417,047.60, with no increase in contract term.

Further, voted: to authorize the Executive Director to approve additional change orders as may be needed to Contract 7067 in an amount not to exceed the aggregate of \$250,000, in accordance with the Management Policies and Procedures of the Board of Directors. (ref. W D.1)

Southern Extra High Pipeline Section 111 - Dedham South: RJV Construction Corp. Contract 7505, Change Order 4

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		
Flanagan		
Pappastergion		
Peña		
Vitale		
Walsh		
Wolowicz		

Voted: to authorize the Executive Director, on behalf of the Authority, to approve Change Order 4 to Contract 7505, Southern Extra High Pipeline Section 111 - Dedham South, with RJV Construction Corp., for an amount not to exceed \$1,325,000, increasing the contract amount from \$19,576,087.42 to \$20,901,087.42, and extending the contract term by 205 calendar days from November 7, 2020 to May 31, 2021.

Further, voted: to authorize the Executive Director to approve additional change orders as may be needed to Contract 7505 in an amount not to exceed the aggregate of \$250,000 and 180 days, in accordance with the Management Policies and Procedures of the Board of Directors. (ref. W D.2)

Commonwealth Avenue Pumping Station Improvements: WES Construction Corp., Contract 7524, Change Order 4

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		
Flanagan		
Pappastergion		
Peña		
Vitale		
Walsh		
Wolowicz		

Voted: to authorize the Executive Director, on behalf of the Authority, to approve Change Order 4 to Contract 7524, Commonwealth Avenue Pumping Station Improvements, with WES Construction Corp., for a not to exceed amount of \$225,000, increasing the contract amount from \$7,128,123.12 to \$7,353,123.12, with no increase in contract term.

Further, voted: 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. (ref. W D.3)

(Mr. Cook left the meeting after the roll call vote.)

OTHER BUSINESS

Mr. Laskey updated Board Members on MWRA's ongoing plan to temporarily transition staff to telework as appropriate in response to the COVID-19 pandemic. There was discussion and questions and answers.

EXECUTIVE SESSION

Vice Chair Carroll announced that the Board would enter Executive Session to discuss real estate, since discussion in open session may have a detrimental effect upon the bargaining and litigating position of the Authority. It was moved to enter Executive Session to discuss real estate and thereafter to return to open session solely for the purpose of adjournment.

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		
Cotter		
Flanagan		
Pappastergion		
Peña		
Vitale		
Walsh		
Wolowicz		

Voted: to enter Executive Session for the purpose of discussing real estate, and thereafter to return to open session solely for the purpose of adjournment.

* * * *

EXECUTIVE SESSION

* * * *

The meeting adjourned at 2:16 p.m.

Approved: May 27, 2020

Attest:

Andrew M. Pappastergion, Secretary

DRAFT

MASSACHUSETTS WATER RESOURCES AUTHORITY

Meeting of the Board of Directors

May 6, 2020

Pursuant to Governor Baker's March 12, 2020 Order Suspending Certain Provisions of the Open Meeting Law the May 6, 2020 meeting of the Board of Directors of the Massachusetts Water Resources Authority was held entirely by remote participation. Chair Theoharides presided. Present remotely from the Board, in addition to Chair Theoharides, were Ms. Wolowicz and Messrs. Carroll, Cook, Cotter, Flanagan, Foti, Pappastergion, Peña, Vitale and Walsh. 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, Kathleen Murtagh, Director of Tunnel Redundancy, Matthew Horan, Treasurer, Michael Cole, Budget Director and Assistant Secretaries Ria Convery and Kristin MacDougall. Joseph Favaloro, MWRA Advisory Board Executive Director, also participated. The meeting was called to order at 3:02 p.m.

REPORT OF THE CHAIR

Chair Theoharides reported on the Executive Office of Energy and Environmental Affairs' ongoing efforts to ensure that Massachusetts residents have safe access to services including parks, open spaces and public utilities, and that public service providers are supported. She also noted that EOEEA staff have been planning for the phased reopening of parks and recreation areas, participating in the food security task force and working closely with clean energy generators and utilities. Chair Theoharides reported that 78% of EOEEA staff are now working remotely and that remote work is being assessed as an operational best practice with regards to the state's reopening efforts. (Mr. Cotter joined the meeting during the report.)

REPORT OF THE EXECUTIVE DIRECTOR

Mr. Laskey reported to Board Members on MWRA's strategies for telework and safe field work during the pandemic. He noted the Authority's aggressive program to keep employees safe including messaging on self-monitoring, physical distancing and use of PPE and contact tracing. Mr. Laskey reported that staff are developing a long-term, phased approach for returning to work and looks forward to Governor Baker's guidance on re-opening. He noted that the items on the Board's agenda make up a 5 piece comprehensive plan to provide financial relief and flexibility to MWRA's member communities as they and their constituents endure the financial impacts from the

pandemic. He invited MWRA Advisory Board Executive Director Joseph Favaloro to comment on the plan.

On behalf of the MWRA Advisory Board and its member communities, Mr. Favaloro noted these extraordinary times and thanked MWRA staff for working closely with MWRA Advisory Board staff to develop a proposed plan. He also noted the Advisory's Board's Executive Committee's unanimous support for the plan.

MWRA staff made a presentation outlining and providing an overview of the five items to be considered by the Board of Directors for approval at this meeting.

APPROVALS

Amendments to Community Loan Agreements

Mr. Vitale made a statement on behalf of Mayor Walsh, the Boston Water and Sewer Commission, BWSC employees and City of Boston residents. He thanked Chair Theoharides, MWRA Board members, Mr. Laskey, MWRA staff, Mr. Favaloro and MWRA Advisory Board staff for their efforts in preparing a thoughtful budget that supports constituents while continuing to provide safe, reliable water and sewer services.

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

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
Theoharides		
Carroll		
Cook		
Cotter		
Flanagan		
Foti		
Pappastergion		
Peña		
Vitale		
Walsh		
Wolowicz		

Voted: to authorize the Executive Director or his designee, on behalf of the Authority, to execute and deliver all necessary documents to provide a onetime exemption to the Program Guidelines for the Community Financial Assistance Programs to amend the existing loans with payment coming due in FY20, FY21, and/or FY22 and to extend the final maturity of each loan by one year.

Bond Defeasance of Future Debt Service

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

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
Theoharides		
Carroll		
Cook		
Cotter		
Flanagan		
Foti		
Pappastergion		
Peña		
Vitale		
Walsh		
Wolowicz		

Voted: to authorize the Executive Director or his designee, on behalf of the Authority, to execute and deliver all necessary documents, agreements and other instruments, and take all actions necessary, to effectuate the redemption and defeasance of an aggregate principal amount of \$28,140,000 of outstanding MWRA senior bonds, as described and set forth in the May 6, 2020, Staff Summary presented to the Board and filed with the records of this meeting.

FY21 Current Expense Budget

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

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
Theoharides		
Carroll		
Cook		
Cotter		
Flanagan		
Foti		
Pappastergion		
Peña		
Vitale		
Walsh		

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
Wolowicz		

Voted: to adopt the Final FY21 Current Expense Budget with current revenue and expense of \$791,356,438 and the Final FY21 Operating Budget (Trustee's Budget) as described and set forth in the May 6, 2020 Staff Summary, including Attachments A and B, presented to the Board and filed with the records of this meeting.

Final FY21 Water and Sewer Assessments

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

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
Theoharides		
Carroll		
Cook		
Cotter		
Flanagan		
Foti		
Pappastergion		
Peña		
Vitale		
Walsh		
Wolowicz		

Voted: to adopt the FY21 Water and Sewer Assessments, Charges and Rates, effective July 1, 2020, as described and set forth in the May 6, 2020 Staff Summary, including Attachments 1, 2 and 3, presented to the Board and filed with the records of the meeting.

Application of Commonwealth's Sewer Rate Relief to June FY20 Assessments

There were questions and answers.

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

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
Theoharides		
Carroll		
Cook		
Cotter		

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
Flanagan		
Foti		
Pappastergion		
Peña		
Vitale		
Walsh		
Wolowicz		

Voted: to apply the FY20 Commonwealth Sewer Rate Relief Funds to reduce the June 1, 2020 assessments to MWRA's member communities as described and set forth in the May 6, 2020 Staff Summary, including Attachment A, presented to the Board and filed with the records of this meeting.

OTHER BUSINESS

Mr. Laskey noted that the upcoming MWRA Board Meeting schedule may be adjusted if needed. He also thanked the MWRA Board of Directors and MWRA Advisory Board leadership for their work on the rate relief plan. (Ms. Wolowicz left the meeting.)

Chair Theoharides also commended these efforts and thanked MWRA staff for continuing to provide safe drinking water, for keeping systems running and for MWRA being among the first state entities to donate masks for health care providers.

ADJOURNMENT

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

<u>Yes</u>	<u>No</u>	<u>Abstain</u>
Theoharides		
Carroll		
Cook		
Cotter		
Flanagan		
Foti		
Pappastergion		
Peña		
Vitale		
Walsh		

Voted: to adjourn.

The meeting adjourned at 3:41 p.m.

Approved: May 27, 2020

Attest:

Andrew M. Pappastergion, Secretary

DRAFT

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: May 27, 2020
SUBJECT: FY20 Third Quarter Orange Notebook



COMMITTEE: Administration, Finance & Audit

INFORMATION
 VOTE

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



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

RECOMMENDATION:

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

DISCUSSION:

The Orange Notebook presents performance indicators for operational, financial, workforce, and customer service parameters tracked by MWRA management each month. No presentation is planned for the Orange Notebook at the Board meeting.

The effects of the pandemic and MWRA's responses to protect staff and slow its spread just start to show up at the end of the quarter on most performance indicators, as they affected only the second half of March. Next quarter's Notebook is expected to show the full effect of the pandemic on management indicators. A few examples of indicators already being affected by the pandemic response in the third quarter are highlighted below.

Deer Island Maintenance

The Predictive and Preventative Maintenance programs at the Deer Island Wastewater Treatment Plant were below their targets in March due to limited staff availability due to staffing changes as part of MWRA's COVID safety procedures. Maintenance staff are on an A/B rotation, with reduced staff in each process area to reduce unnecessary contact. All critical maintenance is being completed, and equipment availability remains acceptable. While the maintenance backlog does not show an increase for March, there has been an increase in April and May that will show in next quarter's report due to deferred lower priority work orders. (Page 5)

Field Operations Metropolitan Maintenance

In contrast, the beginning of the reduction in non-critical maintenance to COVID-19 related changes in work practices in mid-March can be seen in the Field Operations Metropolitan Maintenance Backlog chart. March's backlog increased almost 900 hours over February's. Field crews are on A/B rotation, performing only critical maintenance activities and mustering at various locations to

minimize unnecessary contact (Spot Pond Pump Station in Stoneham, DeLauri Pump Station in Charlestown, and Nut Island Headworks in Quincy). All critical maintenance is being conducted, and deferred work orders will be prioritized as staffing availability is able to return to more normal levels. (Page 9)

Operations Division Metering

The percent of wastewater flow calculated using meters had dropped below its 95 percent target in late 2019 due to a single large meter that was out of service. By February, after wet weather surcharging affected meter reliability in January, the system had returned to its 95 percent target level. Beginning mid-March, most wastewater meter maintenance was deferred due to staffing issues and COVID safety requirements. This gradually resulted in battery failures, reducing the number of active meters, and requiring flow estimation using established procedures. Only critical meters needed to operate the collection system were able to be maintained in service. This has continued in April and early May. By mid-May, staff were able to begin catching up on replacing batteries, but still had a backlog of meter maintenance that required entry into the pipes. (Page 6)

Water system meters are powered by line voltage rather than batteries, and the meters themselves are less likely to require maintenance due to the nature of the fluid and the meter technology. Thus, MWRA's target for water flow calculated based on meters is 100 percent. March was the low month of the quarter with 99.56 percent of billed water use based on actual metered measurements. (Page 6)

Toxics Reduction and Control (TRAC)

While not evident in the third quarter charts, MWRA's Toxics Reduction and Control Department's field operations for sampling and inspections were put on hold as of March 20, due to concerns of safely accessing the industrial and commercial premises. MWRA staff are continuing to issue discharge permits and reviewing and approving 8(m) permits for construction activities near MWRA infrastructure. Staff will continue to monitor the situation to determine when and how to safely resume discharge sampling and facility inspections for those facilities that are in operation. (Page 12)

MASSACHUSETTS WATER RESOURCES AUTHORITY

Board of Directors Report

on

Key Indicators of MWRA Performance

for

Third Quarter FY2020

Q1	Q2	Q3	Q4



Frederick A. Laskey, Executive Director
David Coppes, Chief Operating Officer
May 27, 2020

Board of Directors Report on Key Indicators of MWRA Performance

3rd Quarter FY20

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

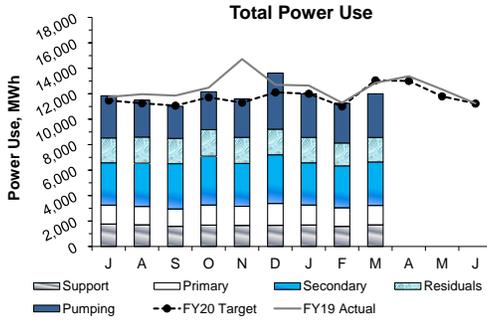
Frederick A. Laskey, Executive Director
David Coppes, Chief Operating Officer
May 27, 2020

OPERATIONS AND MAINTENANCE

Deer Island Operations

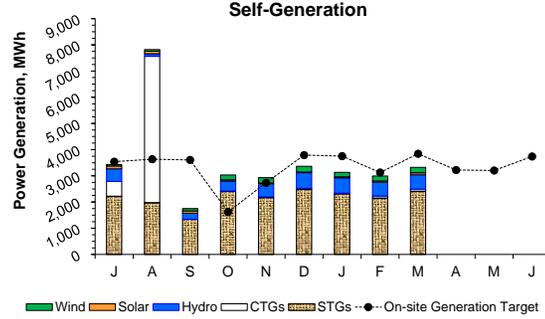
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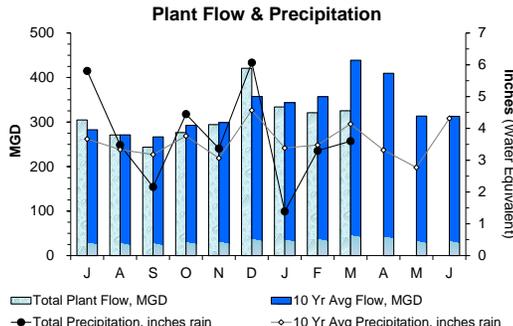


Total power usage in the 3rd Quarter was 2.2% below target as the Total Plant Flow was 10.1% below target with the 4 year average plant flow. Power usage for raw wastewater pumping was 9.9% lower than target and was similar to or below target in all process areas, except in the biological secondary treatment process. 6.1% more than expected power was used in the secondary treatment process for oxygen generation and mixing in the reactors to ensure target dissolved oxygen levels were in the activated sludge.

Note: Power usage projections are based on 4 year averages.

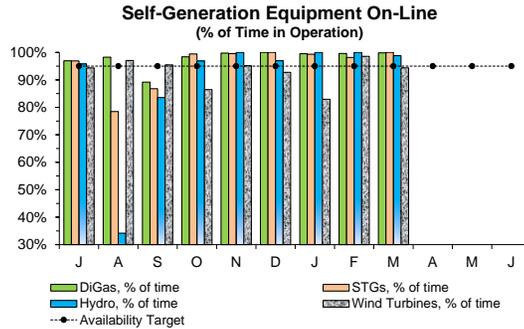


Power generated on-site during the 3rd Quarter was 11.9% below target. The CTGs were operated for emissions testing, testing following CTG-1A auto voltage regulator (AVR) system upgrade, and briefly throughout the quarter for maintenance/checkout purposes. Nevertheless, CTGs generation fell below target by 78.2% as there was no precautionary operation during storm events. The FY20 budget estimate is based on generation data from FY15 to FY18 which included periods when the CTGs were in operation during storm events. Generation by the STGs was 9.4% below target as a result of the units being taken out of operation for scheduled maintenance and during CTG testing following the AVR upgrade. Hydro Turbine generation was 19.7% above target. Generation from the Solar Panels was 13.4% above target, while Wind Turbine generation was 22.3% below target, partially due to downtime caused by an issue with the cooler fan on Turbine #1 and a hydraulic system issue on Turbine #2.

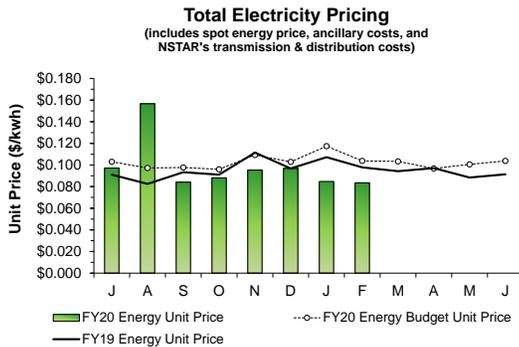


Total Plant Flow for the 3rd Quarter was 14.0% below target with the budgeted 10 year average plant flow (326.7 MGD actual vs. 379.8 MGD expected) as precipitation was 24.6% below target (8.29 inches actual vs. 11.0 inches expected). Total Plant Flow was 10.1% lower than the 4 year average plant flow used for energy budget projections.

Note: Plant Flow and precipitation projections are based on 10 year averages but are 4 year averages for the energy budget projections.

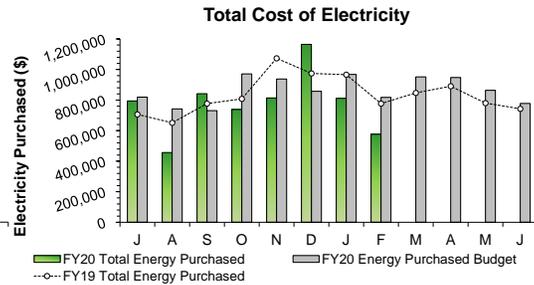


The DiGas system, STGs, and Hydro Turbines all met or exceeded the 95% availability target for the 3rd Quarter. Wind Turbine availability was just under target by 3.1% due to brief periods of downtime from a combination of mechanical issues and turbulence caused by wind blowing through the digesters, tripping the turbine out of service.



Under the current energy supply contract, a block portion of DI's energy is a fixed rate and the variable load above the block is purchased in real time. The actual Total Energy Unit Price in February (the most current invoice available) was 19.5% below target with budgetary estimates. The actual total energy unit price in March is not yet available as the complete invoices have not been received. The Total Energy Unit Price includes a fixed block price, spot energy price, transmission & distribution charges, and ancillary charges.

Note: Only the actual energy prices are reported. Therefore, the dataset lags by one (1) month due to the timing of invoice receipt and review.



The Electricity cost data for Electricity Purchased in March is not yet available. Year-to-date Total Cost of Electricity is \$557,858 (8.2%) lower than budgeted through February. While the Total Energy Unit Price was 9.5% lower than target, the Total Electricity Purchased was 1.4% higher than target.

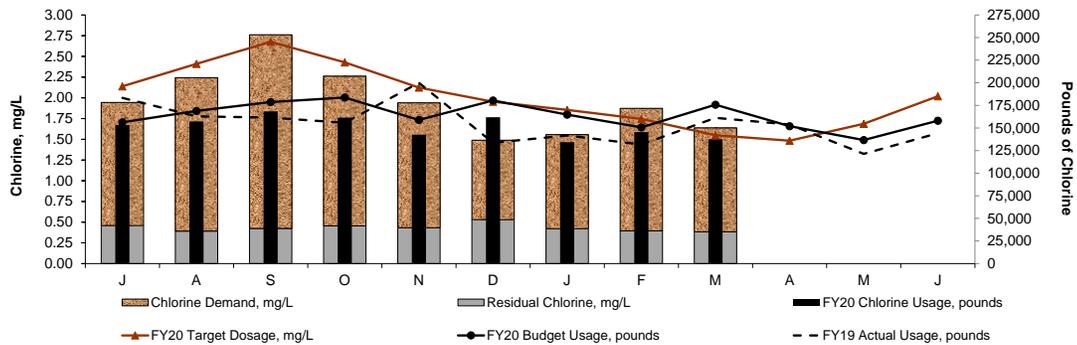
Note: Only months with complete Electricity Purchased data are reported. Therefore, the dataset lags by one (1) month due to the timing of invoice receipt and review.

Deer Island Operations

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Deer Island Sodium Hypochlorite Use



The disinfection dosing rate in the 3rd Quarter was 2.0% below target with budgetary estimates. Actual sodium hypochlorite usage in pounds of chlorine was also 15.0% lower than expected as the 4 year average plant flow used for estimating the hypochlorite usage target was 10.1% lower than expected. DITP maintained an average disinfection chlorine residual of 0.40 mg/L this quarter with an average dosing rate of 1.69 mg/L (as chlorine demand was 1.29 mg/L).

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

Secondary Blending Events

Month	Count of Blending Events	Count of Blending Events Due to Rain	Count of Blending Events Due to Non-Rain-Related Events	Secondary, as a Percent of Total Plant Flow	Total Hours Blended During Month
J	4	4	0	99.6%	10.26
A	2	2	0	99.3%	7.64
S	1	1	0	99.8%	2.45
O	3	3	0	99.0%	11.13
N	1	1	0	99.6%	4.81
D	2	2	0	99.4%	17.99
J	0	0	0	100.0%	0.00
F	0	0	0	100.0%	0.00
M	1	1	0	99.4%	7.45
A					
M					
J					
Total	14	14	0	99.6%	61.73

99.8% of all flows were treated at full secondary during the 3rd Quarter. There was one (1) secondary blending event due to high plant flow resulting from heavy rain. This blending event resulted in a total of 7.45 hours of blending and 62.16 MGal of primary-only treated effluent with secondary effluent. The Maximum Secondary Capacity for the entire quarter was 700 MGD.

Secondary permit limits were met at all times during the 3rd Quarter.

Deer Island Operations & Maintenance Report

Environmental/Pumping:

The plant achieved an instantaneous peak flow rate of 1,011.3 MGD near midnight on March 23. This peak flow occurred during a storm event that brought 1.73 inches of precipitation to the metropolitan Boston area. Overall, Total Plant Flow in the 3rd Quarter was 14.0% below target with the 10 year average plant flow estimate for the quarter.

The MWRA has an on-going project to inspect, and eventually rehabilitate, the shafts that transport wastewater between the remote headworks facilities and the DITP. In order to support the inspections, the remote headworks facilities were temporarily shut down to perform physical and remote inspections. DITP worked closely with Wastewater Operations staff during two (2) shutdowns of the remote headworks facilities in January. The Columbus Park and Ward Street Headworks Facilities were isolated on January 9 in order to remotely inspect the effluent shafts at the Columbus Park and Ward Street Headworks with cameras. The Chelsea Creek Headworks Facility was isolated on January 15 in order to inspect the effluent channels and to remotely inspect the effluent shaft with cameras. Both shutdowns were approximately two (2) to two-and-a-half (2.5) hours in duration with each facility isolation starting at 1:00 AM or 2:00 AM when the diurnal flows were at the lowest levels.

Raw wastewater pump #9 at the North Main Pump Station (NMPS) was taken out of service on December 12 to allow the contractor to refurbish the pump and to recoat the pump's volute. The goal of this pump refurbishment was to return the pump to like-new condition and in so doing; increase energy efficiency, reliability, and extend the pump's useful life. The Eversource approved energy-efficiency incentive for this project is \$58,955 and is based on energy savings from the current state of the pump to the proposed increase in efficiency once the pump is refurbished. The pump refurbishment work was completed in December and the pump was returned to service in January under the direction of the manufacturer's representative. This work did not impact pumping capacity as seven (7) pumps are required to maintain maximum pumping capacity at the NMPS and nine (9) pumps were available during this work.

Deer Island Operations

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Deer Island Operations & Maintenance Report (continued)

Disinfection:

The contract to strip and replace the internal lining in hypochlorite storage tanks #1 and #3 is currently in place with preparation work beginning on tank #3 in mid-March. The contract includes: disconnecting all piping to each tank; removing the existing adhered rubber system utilizing hydro demolition equipment with water pressures exceeding 40,000 psi; sandblasting of all interior surfaces to the white metal; applying a new quarter-inch rubber polycorp to the interior surface; and steam curing for 60 hours at 212 degrees Fahrenheit. The contractor will also reconnect all piping and install new insulation as required after the new liner passes inspection. Tank #3 and tank #1 were both previously relined in late 2007.

Odor Control:

The Residuals Odor Control (ROC) Facility was taken offline on three (3) separate occasions during the quarter. The duration of each shutdown was approximately six (6) hours. The ROC shutdown on February 19 was necessary to allow staff to safely install an expansion band to repair a minor leak in the ductwork on the Gravity Thickener treatment side of the ROC Facility. The ROC Facility was again taken offline on March 9 and on March 17. Blanks were installed in the ductwork on March 9 to isolate fan #2 on wet chemical scrubber #2, which allowed the fan maintenance contractor to perform repairs to the fan from March 12 to March 13. The ROC Facility shutdown on March 17 was necessary to allow staff to remove the blanks in the ductwork making scrubber #2 available for operation. Process air was contained within the building and there were no resident odor complaints received during any of these shutdowns.

Energy and Thermal Power Plant:

Overall, total power generated on-site accounted for 26.8% of Deer Island's total power use during Quarter 3. Renewable power generated on-site (by Solar, Wind, STGs, and Hydro Turbines) accounted for 26.3% of Deer Island's total electrical power use for the quarter.

One (1) of the two (2) start air compressors, which is necessary for CTG startup operation and had failed in early January, was replaced in early February. Each CTG unit is equipped with a compressed air tank that supplies pressurized start air for the CTG. The pressurized start air enables the CTGs to start without any outside electrical power. The compressed air tank has sufficient pressurized air to provide up to three (3) starts per CTG. Each compressed air tank (one per CTG) is replenished by a start air compressor (also one per CTG). Staff have the ability to common up the compressed air tanks using a single compressor to supply compressed air to both the tanks simultaneously (as is currently configured). Therefore, the failure of this single start air compressor did not directly impact the availability or the operation of either CTG unit. However, this did delay the CTG auto-voltage regulator replacement work (explained below) which was originally scheduled to take place in January. The manufacturer's repair was expedited and the CTG service contractor reinstalled the repaired compressor and completed the equipment checkout testing on February 7.

Each CTG is equipped with an automatic voltage regulator (AVR) which is a critical component that controls the voltage, reactive power and power factor for each unit. The existing AVR's are original components which have been deemed obsolete and are no longer supported by the manufacturer. Contractors and staff began work to replace the AVR system on CTG-1A on February 24. The installation and configuration of the new AVR system was completed on February 26. Testing was then conducted over the course of three (3) days by operating CTG-1A, as well as operating both CTGs simultaneously, under progressively challenging operating conditions. Several minor issues were identified during the testing process and were corrected. The CTG-1A unit was returned to normal standby status following successful completion of the testing on February 29.

DITP took delivery of 126,000 gallons of #2 fuel oil, a total of 13 oil tanker trucks, without incident from March 30 through April 1. This fuel oil is used for CTG operation, for boiler startup operations, and for supplemental fuel for boiler operation during periods of low or unstable digester gas production.

Clinton Treatment Plant Operations

Dewatering Building:

Maintenance replaced top wash box seals and adjusted the lower wash box seal on #1 and #2 belt filter press. Staff also replaced coupling on #2 Sludge Feed Pump. The polymer system was repaired to allow more flexibility between the two belt filter presses. Contractor installed a new transformer and a main 50 AMP breaker on #1 belt filter press.

Chemical Building:

Maintenance staff rebuilt the Sodium Bisulfite carry water flow meter. Staff removed a blockage from WAS line flow meter. A bearing and belt were replaced on soda ash auger. Staff replaced a relief valve on the #1 Sodium Hypochlorite pump. Contractor replaced the rate of rise heat detectors in chemical building. Contractor performed laser alignment on #2 RAS pump. Maintenance staff replaced #1 Ferric Chloride pump, replaced aeration diffusion blower and replaced #2 Sodium Bisulfite pump. Soda Ash mixer replaced in lower collection tank.

Aeration Basins:

Operations staff calibrated PH meters and cleaned pH and DO probes. Contractor inspected and took oil samples from aeration blowers.

Phosphorus Building:

Maintenance staff and Deer Island ERT staff replaced 40 filters and reinstalled 10 bands on #1 & 2 disc filters. Maintenance staff acid washed #1, 2, & 3 disk filters, cleaned troughs, and inspected all nozzles. Staff installed a modified wash band on #1 disc filter for easier cleaning. Staff repaired several leaks in #3 disc filter. The chlorine analyzers have been rebuilt. Staff also replaced a faucet in PRF bathroom sink.

Headworks:

Maintenance staff checked, cleaned & lubricated all equipment in upper grit. Staff rebuilt hot water circulator pump. Contractor replaced the condensate tank float assembly on head works boiler. Contractor replaced the block heater on 450 KW Diesel Generator.

Digester Building:

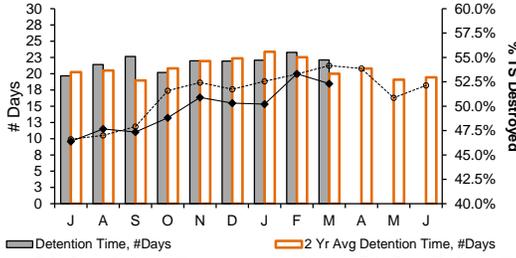
Maintenance staff replaced 1 in. gas shutoff valve on methane gas trap. Equipment inspected for proper operation. State plumbing inspector approved #1 boiler for dual fuel (natural gas and methane) use.

Deer Island Operations and Residuals

3rd Quarter - FY20

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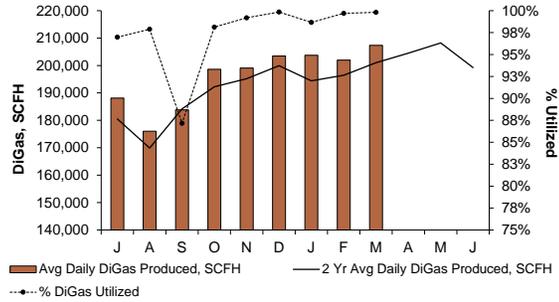
Sludge Detention Time in Digesters and Total Solids Destruction



Total solids (TS) destruction following anaerobic sludge digestion averaged 52.0% during the 3rd Quarter, 2.6% below target with the 3 year average of 53.3%. This lower destruction is attributed to a higher-than-expected amount of secondary waste sludge, which is more difficult to break down during anaerobic sludge digestion. Sludge detention time in the digesters was 2.4% higher than target at 22.5 days as DI operated with an average of 8.0 digesters.

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

Digester Gas Production and % Utilized

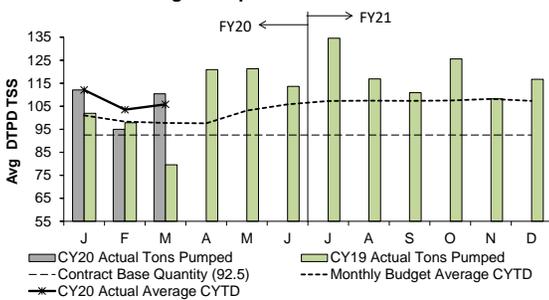


The Avg Daily DiGas Production in the 3rd Quarter was 3.6% above target with the 2 Year Avg Daily DiGas Production. On average, 99.4% of all the DiGas produced in the quarter was utilized at the Thermal Power Plant (TPP).

Residuals Pellet Plant

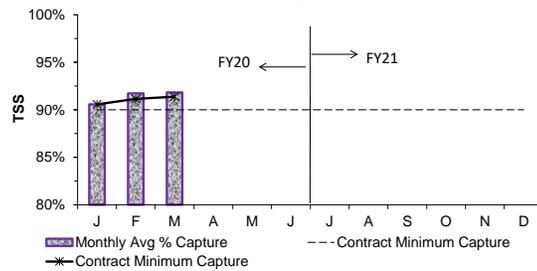
New England Fertilizer Company (NEFCO) operates the MWRA Biosolids Processing Facility (BPF) in Quincy under contract. MWRA pays a fixed monthly amount for the calendar year to process up to 92.5 DTPD/TSS as an annual average. The monthly invoice is based on 92.5 DTPD/TSS (Dry Tons Per Day/Total Suspended Solids) times 365 days divided by 12 months. At the end of the year, the actual totals are calculated and additional payments are made on any quantity above the base amount. On average, MWRA processes more than 92.5 DTPD/TSS each year (FY20's budget is 107.4 DTPD/TSS and FY21's budget is 107.9 DTPD/TSS).

Sludge Pumped From Deer Island



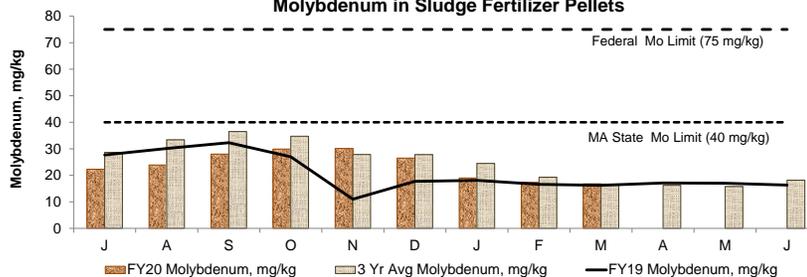
The average quantity of sludge pumped to the Biosolids Processing Facility (BPF) in the 3rd Quarter and for the first three (3) months of CY20 was 105.8 TSS Dry Tons Per Day (DTPD) - 8.2% above target with the FY20 budget of 97.8 TSS DTPD for the same period. Sludge delivered to the BPF was higher than expected during the quarter mainly due to higher-than-expected primary and secondary sludge production, in addition to inventory shifts in the digested sludge holding tanks on DITP.

Monthly Average % Capture of Processed Sludge



The contract requires NEFCO to capture at least 90.0% of the solids delivered to the Biosolids Processing Facility. The average capture for the 3rd Quarter and for the first three (3) months of CY20 was 91.4%.

Molybdenum in Sludge Fertilizer Pellets



Copper, lead, and molybdenum (Mo) are metals of concern for MWRA as their concentrations in its biosolids have, at times, exceeded regulatory standards for unrestricted use as fertilizer. Molybdenum-based cooling tower water is a significant source of Mo in the sludge fertilizer pellets. The Federal standard for Mo is 75 mg/kg. In 2016, Massachusetts Type I biosolids standard for molybdenum was changed to 40 mg/kg from the previous standard of 25 mg/kg. This has allowed MWRA to sell its pellets in-state for land application whereas the previous limits forced several months' worth of pellets to be shipped out of state. This made it an impractical source of fertilizer for local Massachusetts farms since NEFCO does not distribute product that does not meet the suitability standards.

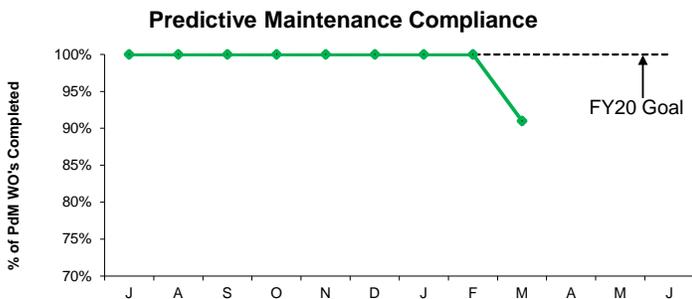
The levels have been below the DEP Type 1 limit for all three (3) metals. For Mo, the level in the MWRA sludge fertilizer pellets during the 3rd Quarter averaged 17.7 mg/kg, 12% below the 3 year average, 56% below the MA State Limit, and 76% below the Federal Limit.

Deer Island Maintenance

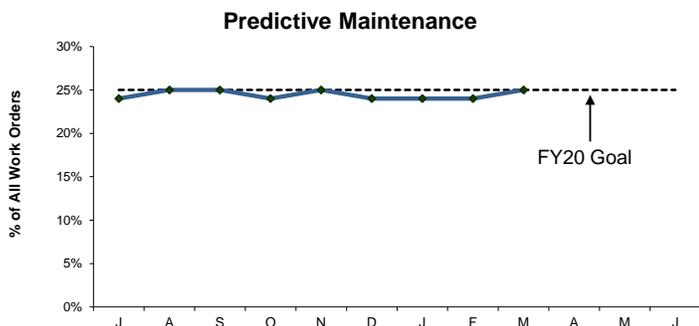
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Productivity Initiatives

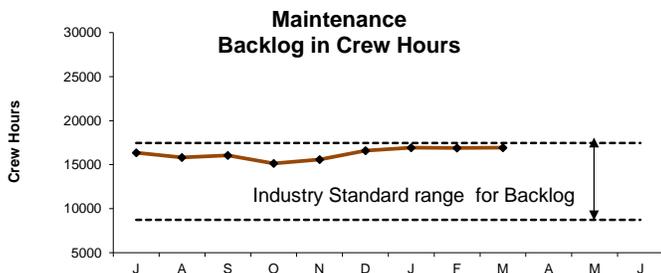
Productivity initiatives include increasing predictive maintenance compliance and increasing PdM work orders. Accomplishing these initiatives should result in a decrease in overall maintenance backlog.



Deer Island's FY20 predictive maintenance goal is 100%. DITP completed 97% of all PdM work orders this quarter. DITP is continuing with an aggressive predictive maintenance program. This quarter's dip is because of limited staffing, due to the COVID-19 Virus.



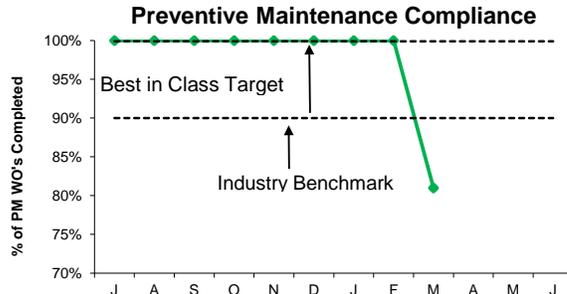
Deer Island's increased FY20 predictive maintenance goal is 25% of all work orders to be predictive. 24% of all work orders were predictive maintenance this quarter. The industry is moving toward increasing predictive maintenance work to reduce downtime and better predict when repairs are needed.



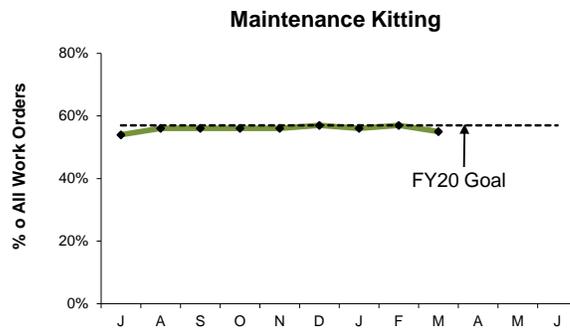
DITP's maintenance backlog at Deer Island is 16,931 hours this quarter. DITP is at the upper end of the industry average for backlog. The industry Standard for maintenance backlog with 97 staff (currently planned staffing levels) is between 8,730 hours and 17,460 hours. Backlog is affected by the following five vacancies; (3) Electricians, (1) Instrument Technician and (1) HVAC Technician. Management continues to monitor backlog and to ensure all critical systems and equipment are available.

Proactive Initiatives

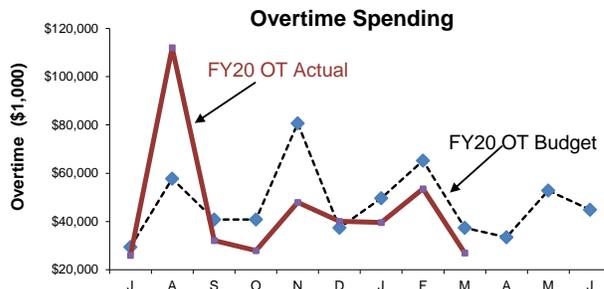
Proactive initiatives include completing 100% of all preventative maintenance tasks and increasing preventative maintenance kitting. These tasks should result in lower maintenance costs.



Deer Island's FY20 preventative maintenance goal is 100% completion of all work orders from Operations and Maintenance. DITP completed 94% of all PM work orders this quarter. This quarter's dip is because of limited staffing, due to the COVID-19 Virus.



Deer Island's increased FY20 maintenance kitting goal is 57% of all work orders to be kitted. 56% of all work orders were kitted this quarter. Kitting is staging of parts or material necessary to complete maintenance work. This has resulted in more wrench time and increased productivity.



Maintenance overtime was under budget by \$36k this quarter and is \$60k under for the FY20. Management continues to monitor backlog and to ensure all critical equipment and systems are available. This quarter's overtime was predominately used for Storm Coverage/High Flows, GTO/PSL/RSL Pumps Clogged, Grinder Replacements, Thermal Plant VFD Replacement, and the Installation of North Main Pump Station #9.

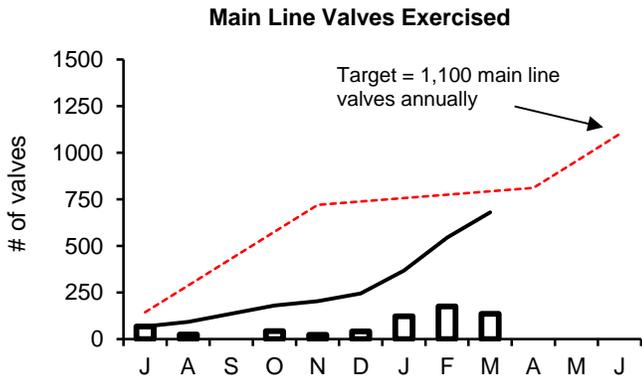
Water Distribution System Valves

3rd Quarter - FY20

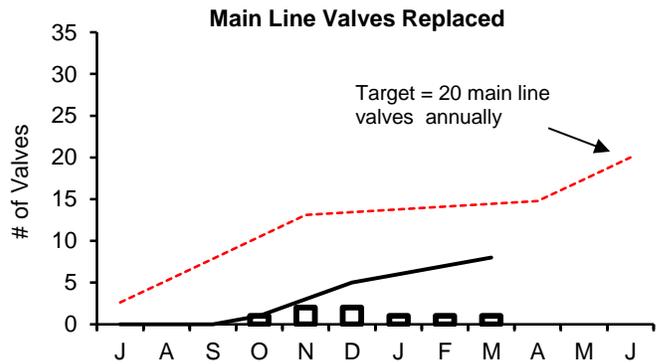
Background

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

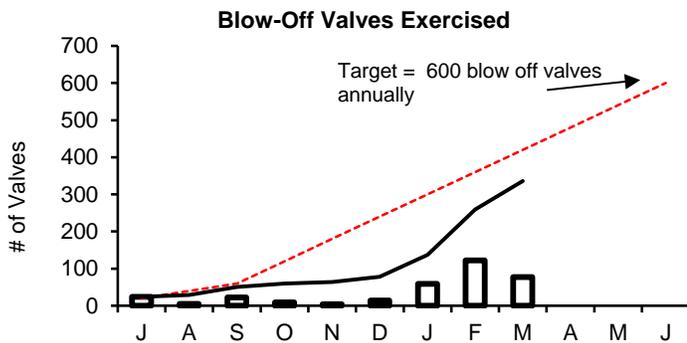
Type of Valve	Inventory #	Operable Percentage	
		FY20 to Date	FY20 Targets
Main Line Valves	2,159	96.5%	95%
Blow-Off Valves	1,317	98.6%	95%
Air Release Valves	1,380	95.0%	95%
Control Valves	49	100.0%	95%



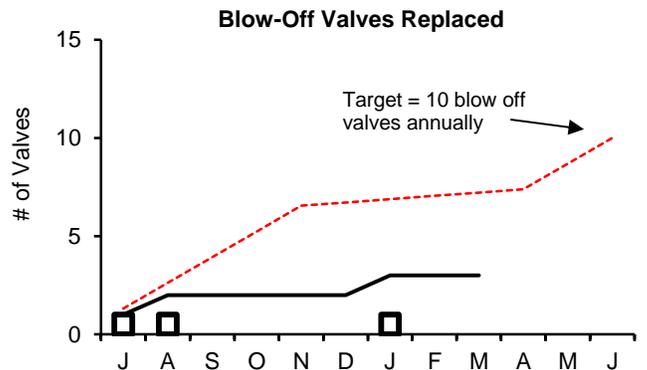
During the 3rd Quarter of FY20, 435 main line valves were exercised. Below target due to high priority CIP project; WASM 1. The total exercised for the fiscal year to date is 680.



During the 3rd Quarter of FY20, there were three main line valve replaced. Below target due to isolation and permit issues. The total replaced for the fiscal year to date is eight.



During the 3rd Quarter of FY20, 258 blow off valves were exercised. Below target due to high priority CIP project; WASM 1. The total exercised for the fiscal year to date is 336.



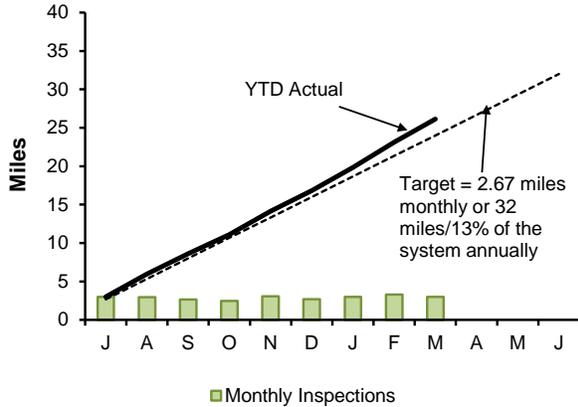
During the 3rd Quarter of FY20, there was one blow off valve replaced. Below target due to isolation and permit issues. The total replaced for the fiscal year to date is three.

Wastewater Pipeline and Structure Inspections and Maintenance

3rd Quarter - FY20

Inspections

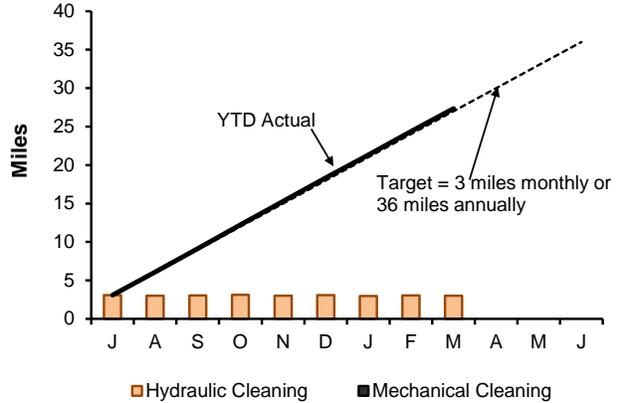
Pipeline Inspections



Staff internally inspected 9.30 miles of MWRA sewer pipeline during this quarter. The year to date total is 26.14 miles. No Community Assistance was provided quarter.

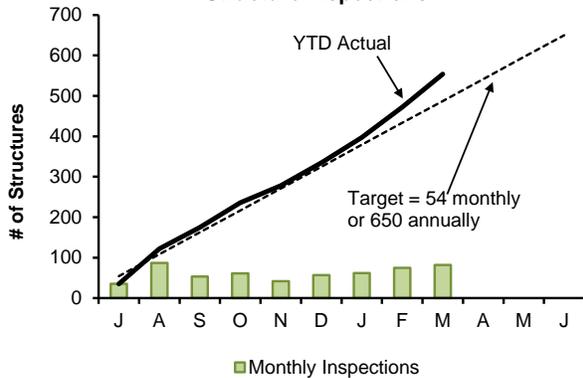
Maintenance

Pipeline Cleaning



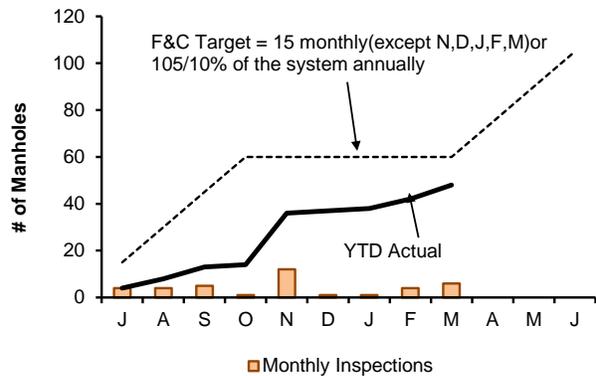
Staff cleaned 9.01 miles of MWRA's sewer system and removed 24 yards of grit and debris during this quarter. The year to date total is 27.35 miles. No Community Assistance was provided this quarter.

Structure Inspections



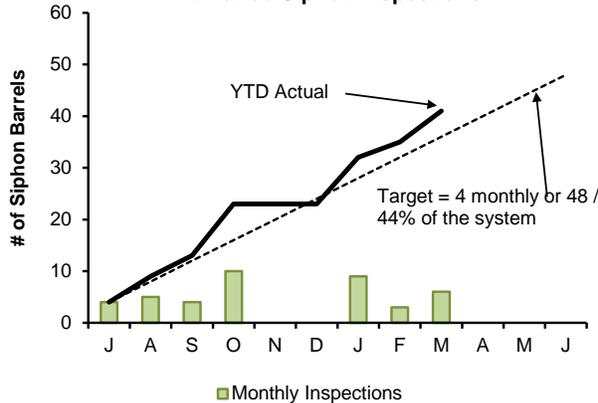
Staff inspected the 36 CSO structures and performed 183 additional manhole/structure inspections during this quarter. The year to date total is 554 inspections.

Manhole Rehabilitation



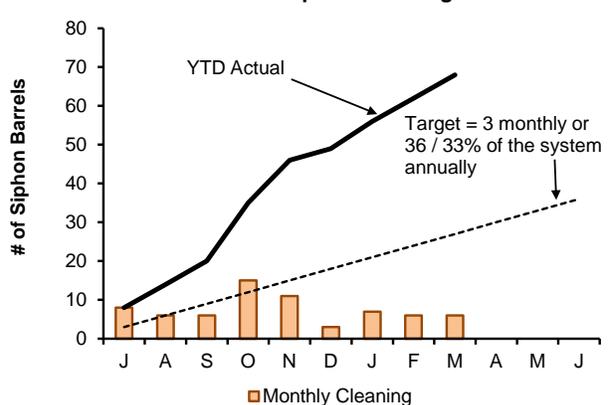
Staff replaced 11 frames & covers during this quarter. The year to date total is 48. Staff have been working the DITP Shaft Project shutdowns.

Inverted Siphon Inspections



Staff inspected 18 siphon barrels this quarter. Year to date total is 41 inspections.

Inverted Siphon Cleaning

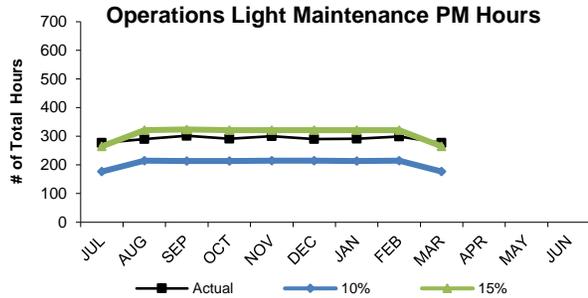


Staff cleaned 19 siphon barrels during this quarter. Year to date total is 68.

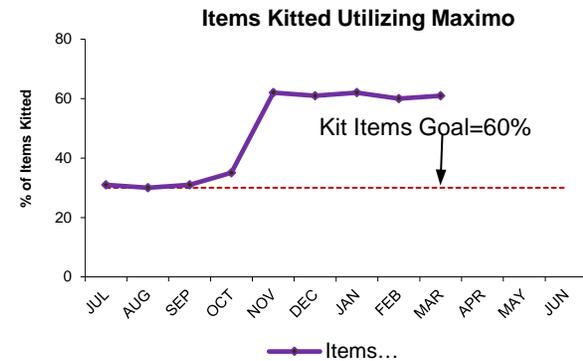
Field Operations' Metropolitan Equipment & Facility Maintenance

3rd Quarter - FY20

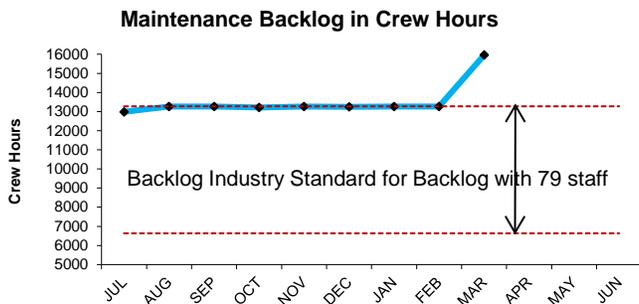
Several maintenance and productivity initiatives are in progress. The goal for the Overall PM completion and the Operator PM completion was raised to 100% for Fiscal Year 2010. The Operator PM and kitting initiatives frees up maintenance staff to perform corrective maintenance and project work, thus reducing maintenance spending. Backlog and overtime metrics monitor the success of these maintenance initiatives.



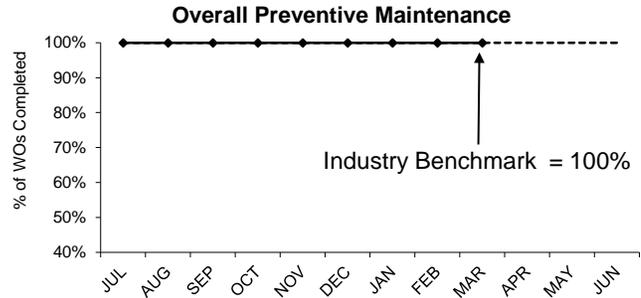
Operations staff averaged 289 hours of preventive maintenance during the 3rd Quarter, an average of 14% of the total PM hours for the 3rd Quarter, which is within the industry benchmark of 10% to 15%.



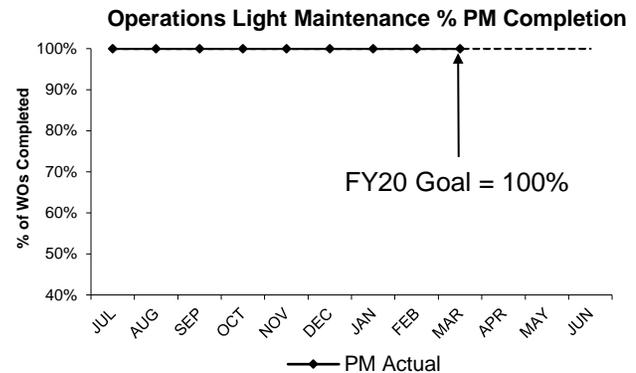
Operation's FY20 maintenance kitting goal has been set at 60% of all work orders to be kitted. Kitting is the staging of parts or material necessary to complete maintenance work. In the 3rd Quarter, 61% of all applicable work orders were kitted. This resulted in more wrench time and increased productivity.



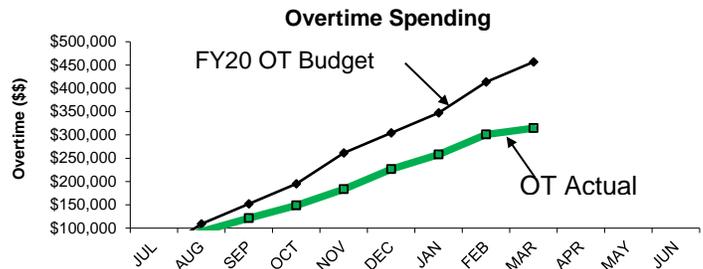
The 3rd Quarter backlog average is 14161 hours. Management's goal is to continue to control overtime and still stay within the industry benchmark of 6636 to 13275 hours. The slight increase is due to reduced staffing levels due to COVID19



The Field Operations Department (FOD) preventive maintenance goal for FY20 is 100% of all PM work orders. Staff completed an average of 100% of all PM work orders in the 3rd Quarter.



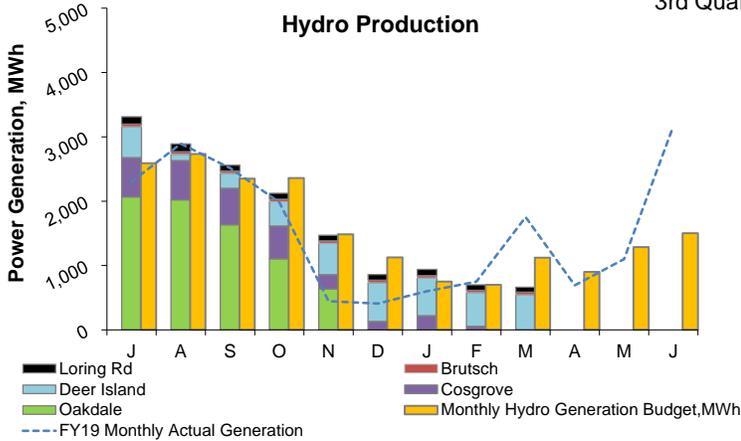
Wastewater Operators complete light maintenance PM's which frees up maintenance staff to perform corrective maintenance. Operations' FY20 PM goal is completion of 100% of all PM work orders assigned. Operations completed an average of 100% of PM work orders in the 3rd Quarter.



Maintenance overtime was \$64k under budget for the 3rd Quarter. Overtime was used for critical maintenance repairs and wet weather events. Overtime for FY20 is \$314k which is currently \$142k under budget for the fiscal year.

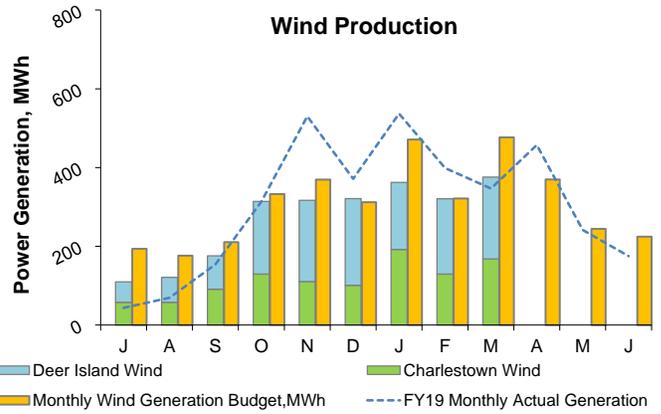
Renewable Electricity Generation: Savings and Revenue

3rd Quarter - FY20



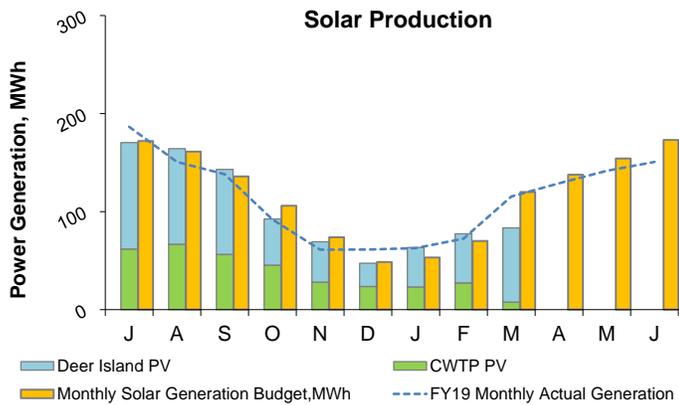
In the 3rd Quarter of FY20, the renewable energy produced from all hydro turbines totaled 2,301 MWh; 11% below budget³. There were no Quabbin Tunnel transfers during the quarter. The total energy produced to-date in FY20 is 15,518 MWh; 2% above budget³.

The total savings and revenue² to date in FY20 (actuals through February¹) is \$693,489; 9% above budget³. The savings and revenue value does not include RPS REC revenue (see next page).



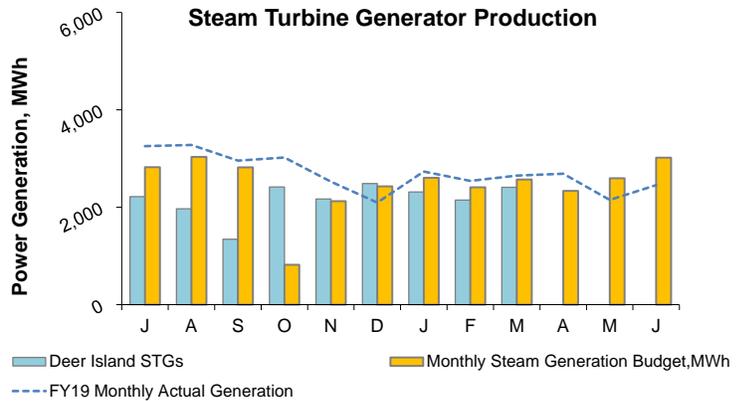
In the 3rd Quarter of FY20, the renewable energy produced from all wind turbines totaled 1,059 MWh; 17% below budget³. The total energy produced to-date in FY20 is 2,417 MWh; 16% below budget³.

The total savings and revenue² to date in FY20 (actuals through February¹) is \$289,986; 18% below budget³. The savings and revenue value does not include RPS REC revenue (see next page).



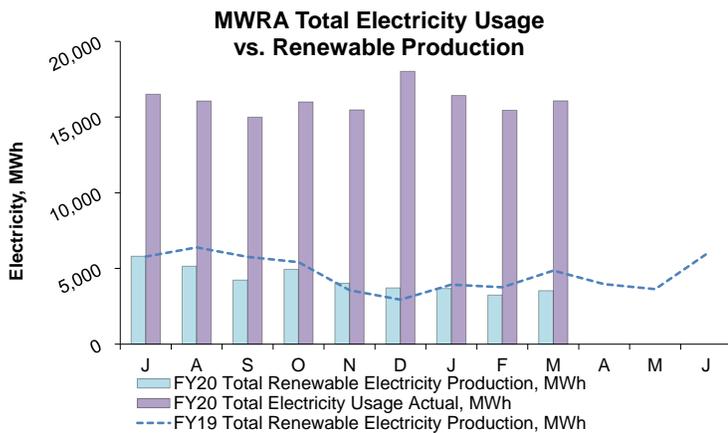
In the 3rd Quarter of FY20, the renewable energy produced from all solar PV systems totaled 224 MWh; 8% below budget³. The total energy produced to-date in FY20 is 922 MWh; 2% below budget³.

The total savings and revenue² to date in FY20 (actuals through February¹) is \$199,044; 84% above budget³. The savings and revenue value does not include RPS REC revenue (see next page).



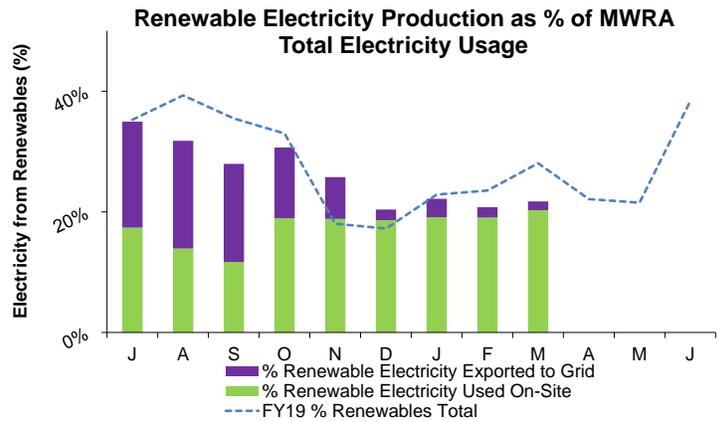
In the 3rd Quarter of FY20, the renewable energy produced from all steam turbine generators totaled 6,871 MWh; 9% below budget³. The total energy produced to-date in FY20 is 19,472 MWh; 10% below budget³.

The total savings and revenue² to date in FY20 (actuals through February¹) is \$1,672,605; 15% below budget³. The savings and revenue value does not include RPS REC revenue (see next page).



In the first three quarters of FY20, MWRA's electricity generation by renewable resources totaled 38,328 MWh. MWRA's total electricity usage was approximately 145,026 MWh. The MWRA total electricity usage is the sum of all electricity purchased for Deer Island and FOD plus electricity produced and used on-site at these facilities. Approximately 99% of FOD electrical accounts are accounted for by actual billing statements; minor accounts that are not tracked on a monthly basis such as meters and cathodic protection systems are estimated based on this year's budget.

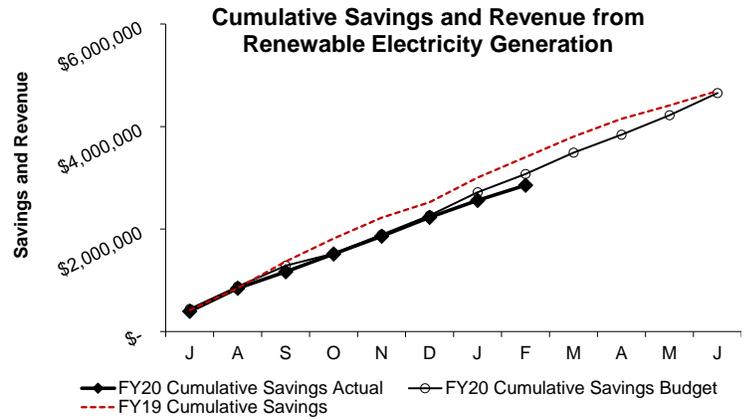
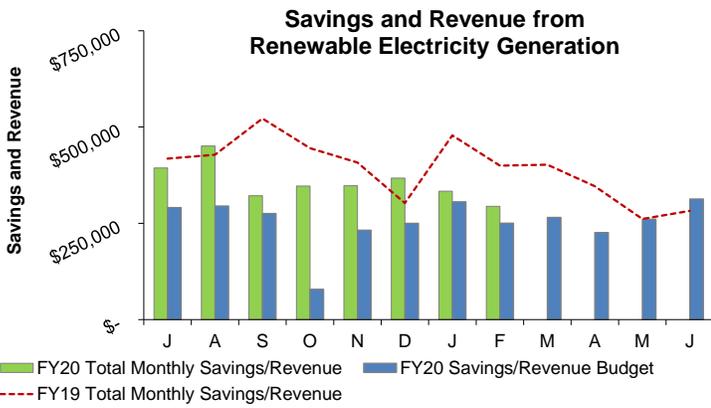
In the first three quarters of FY20, green power generation represented approximately 26% of total electricity usage. All renewable electricity generated on DI is used on-site (this accounts for more than 50% of MWRA renewable generation). Almost all renewable electricity generated off-DI is exported to the grid.



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

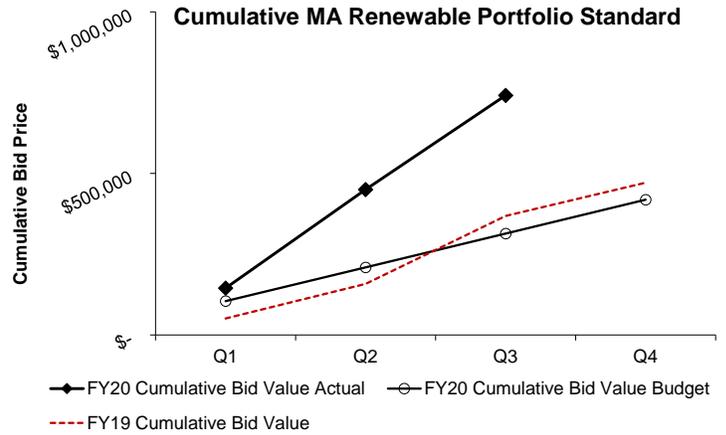
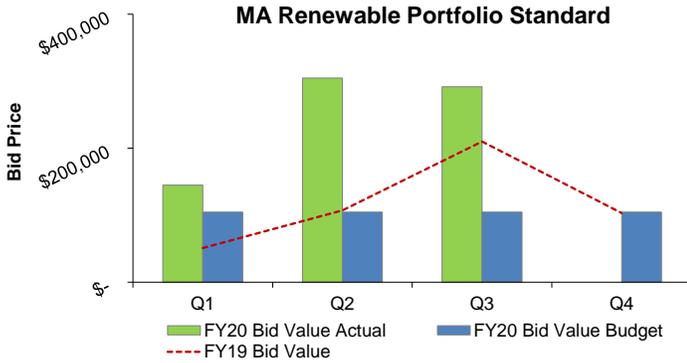
Renewable Electricity Generation: Savings and Revenue

3rd Quarter - FY20

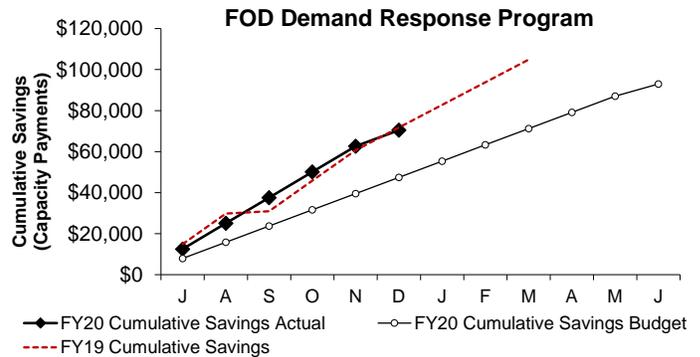
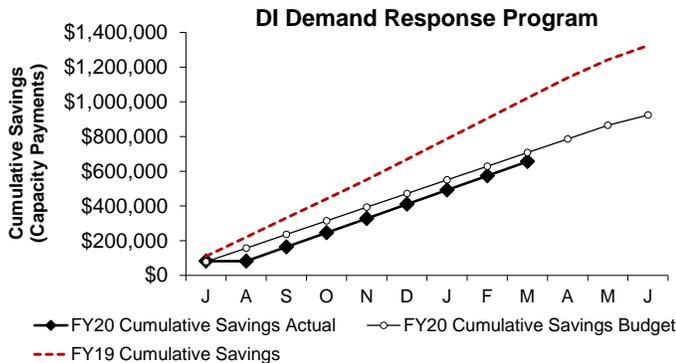


Savings and revenue from MWRA renewable electricity generation in the first 8 months of FY20 (actuals only through February¹) is \$2,855,124 which is 7% below the budget³.

Savings and revenue² from all renewable energy sources include wind turbines, hydroelectric generators, solar panels, and steam turbines (DI). This includes savings and revenue due to electricity generation (does not include avoided fuel costs and RPS RECs). The use of DITP digester gas as a fuel source provides the benefit of both electricity generation from the steam turbine generators, and provides thermal value for heating the plant, equivalent to approximately 5 million gallons of fuel oil per year (not included in charts above).



Bids were awarded during the 3rd Quarter¹ from MWRA's renewable energy assets; 3,110 Q3 CY2019 Class I Renewable Energy Certificates (RECs), 7,405 Q3 CY2019 Class II RECs, and 100 Q3 CY2019 Solar RECs were sold for a total value of \$291,783 RPS revenue; which is 179% above budget³ for the Quarter. This is mostly due to Class I REC prices being over 200% above the budget for the quarter. REC values reflect the bid value on the date that bids are accepted. Cumulative bid values reflects the total value of bids received to date.

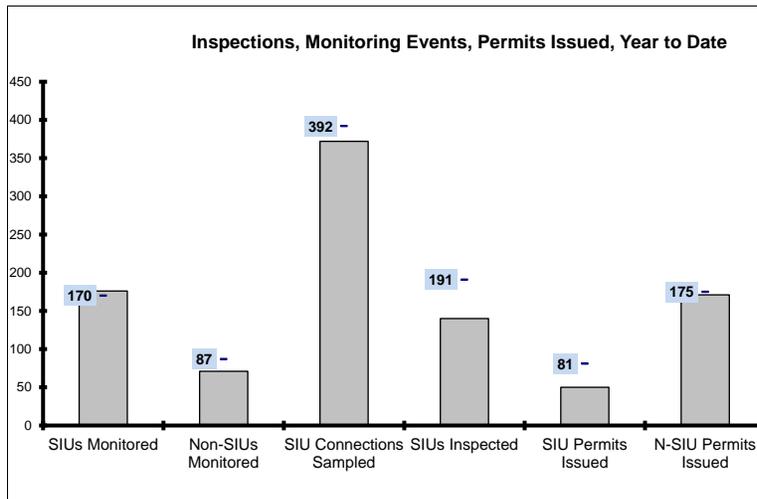


Currently Deer Island, JCWTP, and Loring Rd participate in the ISO-New England Demand Response Programs⁴. By agreeing to reduce demand and operate the facility generators to help reduce the ISO New England grid demand during periods of high energy demand, MWRA receives monthly Capacity Payments from ISO-NE. When MWRA operates the generators during an ISO-NE called event, MWRA also receives energy payments from ISO-NE. FY20 Cumulative savings (Capacity Payments only) through March¹ total \$655,890 for DI and payments for FOD total \$70,438 through December¹.

- Notes:
1. Only the actual energy prices are being reported. Therefore, some of the data lags up to 2 months due to timing of invoice receipt.
 2. Savings and Revenue: Savings refers to any/all renewable energy produced that is used on-site therefore saving the cost of purchasing that electricity, and revenue refers to any value of renewable energy produced that is sold to the grid.
 3. Budget values are based on historical averages for each facility and include operational impacts due to maintenance work.
 4. Chelsea Creek, Columbus Park, Ward St., and Nut Island participated in the ISO Demand Response Program through May 2016, until an emissions related EPA regulatory change resulted in the disqualification of these emergency generators, beginning June 2016. MWRA is investigating the cost-benefit of emissions upgrades for future possible participation.

Toxic Reduction and Control

3rd Quarter - FY20



EPA Required SIU Monitoring Events for FY20: 170
YTD : 176

Required Non-SIU Monitoring Events for FY20: 87
YTD : 71

SIU Connections to be Sampled For FY20: 392
YTD: 372

EPA Required SIU Inspections for FY20: 191
YTD: 140

SIU Permits due to Expire In FY20: 81
YTD: 50

Non-SIU Permits due to Expire for FY20: 175
YTD: 171

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

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

TRAC's annual monitoring and inspection goals are set at the beginning of each fiscal year but they can fluctuate due to the actual number of SIUs. Monitoring of SIUs and Non-SIUs is dynamic for several reasons including: newly permitted facilities, sample site changes within the year requiring a permit change, non-discharging industries, a partial sample event is counted as an event even though not enough sample was taken due to the discharge rate at the time, increased inspections leading to permit category changes requiring additional monitoring events.

TRAC also monitors one-third of the non-SIUs each year. SIU and Non-SIU permits are issued with durations of two to five years, depending on the category of industry, varying the number of permits that expire in a given year. Due to the COVID-19 pandemic, TRAC put all field operations (sampling and inspections) on hold as of March 20, 2020.

	Number of Days to Issue a Permit						Permits Issued	
	0 to 120		121 to 180		181 or more		SIU	Non-SIU
	SIU	Non-SIU	SIU	Non-SIU	SIU	Non-SIU		
Jul	2	19	0	0	0	0	2	19
Aug	4	21	0	4	1	0	5	25
Sep	7	16	0	0	0	0	7	16
Oct	6	19	0	1	0	1	6	21
Nov	5	17	0	2	0	0	5	19
Dec	9	12	0	3	0	1	9	16
Jan	4	16	0	3	0	0	4	19
Feb	7	25	0	3	0	0	7	28
Mar	4	5	0	1	1	2	5	8
Apr								
May								
Jun								

% YTD	96%	88%	0%	10%	4%	2%	50	171
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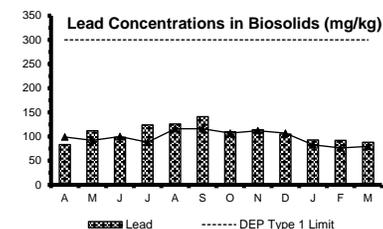
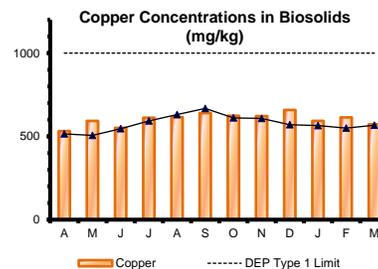
EPA requires MWRA to issue or renew 90 percent of SIU permits within 120 days of receipt of the application or the permit expiration date - whichever is later. EPA also requires the remaining 10 percent of SIU permits to be issued within 180 days.

In the 3rd quarter of FY20, 71 permits were issued, 16 of which were SIUs. Fifteen of the SIU permits were issued within the 120-day timeframe. There is a 96 percent compliance in the timely issuance of SIU permits so far.

In this quarter, 11 of the non-SIU permits were issued after the 120-day timeframe. Timely availability of much needed data for permit processing coupled with the late payment of the permit fees, led to those permits being issued beyond the 120-day timeframe.

For the Clinton Sewer Service area, no SIU permit was issued in this quarter and none so far in the fiscal year.

Due to the COVID-19 pandemic, TRAC put all field operations (sampling and inspections) on hold as of March 20, 2020. TRAC is continuing to issue permits.



Copper, lead, and molybdenum are metals of concern for MWRA as their concentrations in its biosolids have, at times, exceeded regulatory standards for unrestricted use as fertilizer.

Overall, copper and lead levels remain relatively constant, below the DEP Type 1 Limit, and within the range of values over the past several years.

A discussion of molybdenum concentrations in biosolids is included in the Deer Island Residuals Pellet discussion.

Field Operations Highlights

3rd Quarter – FY20

Western Water Operations and Maintenance

- Carroll Water Treatment: Staff continued to troubleshoot the engine/generator issues on emergency generator number 1 with help from the engine manufacturer and a vibration analysis expert. Staff completed half plant maintenance and cleaning activities on both sides of the treatment process and flushed the upper Hultman Aqueduct and Metro West Tunnels prior to reactivation.
- Staff completed plans to isolate a section of the Metrowest tunnel to facilitate replacing a valve on the riser shaft at Edgell road in Framingham. This project is on hold to prevent staff exposure working in close proximity in the valve chamber. Staff also operated the Sudbury Aqueduct to refill Chestnut Hill reservoir.

Metro Water Operations and Maintenance

- Staff support to communities included assisting Framingham with shock chlorinating their Beebe water storage tanks.
- Staff completed installation of a new main line valve at Cary Circle in Revere and an eight-inch gate valve on Section 5, in Medford; Dug a test pit at Framingham's Edgell Road Pumping Station in preparation for an upcoming valve replacement; Provided assistance to the Camp Sayre Boy Scout Facility in Milton, repairing a leak and locating a buried valve. Deployed a Mobile Pumping Unit to the Lexington Street Pump Station as a contingency after the station experienced an electrical failure.

SCADA

- Staff completed on installation of temporary OCC SCADA view nodes at CWTP UV building in support for JCWTP PLC replacement project.

Wastewater Operations & Maintenance

- Mystic River Water Shed Association Tour: Operations staff gave a tour of the Chelsea Creek Headworks and Chelsea Screenhouse to Mystic River Water Association staff to have pictures taken by a professional photojournalist on 1/22/20.
- Towable Generator Docking Station: Operations staff continued to work with Construction on this project. Operations staff was on site at Braintree/Weymouth PS on in January and February for a utility power outage required to install the new electrical equipment associated with this contract. Staff then went to Quincy PS on 3/25/20 to complete the install of new electrical equipment.
- Remote Headworks & Deer Island Shafts Study: Operations supported this project on 1/16/20 as flow was stopped at the Chelsea Creek Headworks, as part of this shaft inspection project. Shutdown was for the internal inspection of the channels at Chelsea Creek.
- Operations staff accompanied MWRA's insurance carrier FM Global on a site visit to Prison Point on 2/26/20 and then met

with Risk Management, Engineering, Water and Maintenance staff to discuss future facility protections and mitigating risks.

- CSO Assessment Monthly Meetings: Operations staff continued to provide details of existing metering, what is lacking, how data can be monitored during storm events and responded to in a timely manner for the future.
- Tool Box Talk: Operations management held tool box talks with staff about social distancing and the distribution/handling of PPE during the CoVid-19 pandemic.

Metering

Community Outreach

- In response to a request by BWSC, staff began tracking how sheltering in place has affected water demand. While most residential communities are only affected slightly by the change (with some seeing slight increases in demand), BWSC has seen a sharp decline in demand during this time.

Metering staff met with Chelsea and Everett personnel on February 14 to discuss potential open valves between Everett and Chelsea. During various water main leaks in the Chelsea low service area metering observed spikes in flow in the Everett low service area indicating the potential for a community interconnection being open. Everett DPW found an open valve on the morning of February 14. Review of previous monthly average data to see if the authority had overbilled either community did not indicate any abnormal flow volumes in either Chelsea or Everett. Chelsea water system management engineer (Weston and Sampson) subsequently requested assistance with identification and estimation of several large water main leaks that were repaired in CY 2019.

Staff continued to track an issue in Somerville. The bypass valve for meter #91 in Somerville was placed back into service in December 2019. Despite the valve functioning properly, the Somerville Low Service Area is still approximately 500,000 gpd higher than historical values. Metering worked with leak detection to perform a complete leak detection hydrant survey of the low service area in Somerville. While several small service leaks were identified, there was not a major leak that would result in a large decrease in demand. Metering continued to monitor the situation and Operations have begun testing other meter sites to identify other potential spots where water may be returning to the MWRA system.

Metering staff reached out to the following communities in February to alert them to observed flow increases in their monthly usage on their CY 2019 draft assessments; Somerville (3x), Nahant, Southborough, and Everett (Likely related to Casino opening June 2019).

CSO Public Notification: Metering staff continued to support the CSO public notifications team, identifying the equipment needed to maintain the meter sites after the CSO evaluation project is complete.

Field Operations Highlights

3rd Quarter – FY20

Due to the Social distancing guidelines due to CoVid, MWRA's specialty metering contractor is unavailable to travel to site visits to inspect the existing wastewater metering equipment. Metering crews will assist with inspection of the meters once ADS is available.

Teleworking Collaboration: The Meter data and Meter Engineering teams successfully migrated to teleworking in the month of March due to social distancing requirements. Meter Data is also operating as a pilot program for operation with the WebEx Teams software to maintain contact remotely. Meter Maintenance remains on an A/B schedule on a report-as-needed basis.

Verizon 4G Upgrade: Metering staff has been preparing for Verizon to shut off their 3G data network permanently. Of the 2 remaining 4G modem installations, all are at SCADA sites. We anticipate completing rollout of all 4G modems and RU-35s well before the Verizon 3G shutoff at the end of 2020.

TRAC

- On January 22, a large amount of grease and rags showed up on the bar screens at Caruso Pump Station. TRAC Inspections staff determined that the grease resulted from the cleanup of a sewage blockage at the airport with 50-70,000 of material discharged to a manhole on Massport's property.
- On March 1, TRAC staff responded to a spill of transformer fluid to a storm drain in Cambridge from a car accident with a telephone pole causing the pole to fall to the pavement and spill the contents of 3 transformers. None of the fluid reached the sewer and there was no impact to the sewer service.

Environmental Quality-Water

Regulatory and Non-Regulatory Sampling Programs

- Throughout the quarter, staff provided drinking water sampler training to nine communities and internal staff on the proper procedure for collection of a coliform sample and testing of chlorine residual and temperature. Staff developed a visual guide and operating procedure on how to collect a drinking water sample for coliform analysis.
- COVID19 Coordination with DEP/EPA: MWRA staff began bi-weekly online meetings with DEP and EPA representatives on March 26. MWRA provided an update on planning and operations prior to and during the emergency.

Community Support

- In January and February, staff provided support to Framingham for sampling and testing associated with the disinfection and refilling of three water storage tanks.
- On January 13, MWRA staff along with DEP NERO attended a meeting at the Hanscom Air Force Base. The discussion focused

on the Base's recent issues with drinking water program compliance and the DEP issuance of four consecutive Level 2

- RTCR Assessments. In February, EnQual-Water staff visited the Base to perform investigatory sampling at various total coliform rule sample sites. All results revealed an improvement in several water quality parameters.
- On January 16, EnQual-staff provided community support to Norwood regarding discolored water samples on a particular service line at a local café. Further investigation and testing revealed that the carbonation system at the beverage fountain was the source of the issue. The low pH condition resulted in blue-colored water with elevated levels of copper, zinc, and other heavy metals. Norwood Water Dept. notified their Board of Health and the DEP throughout the event. Repairs to the carbonation system resolved the problem.
- Staff continued to monitor disinfection byproducts results within the CVA communities and help with required DEP submittals. CVA communities sampled Q1 disinfection byproducts in February and March; no communities exceeded an Operational Evaluation Level (OEL) or Locational Running Annual Average (LRAA). Staff continue to collect monthly disinfection byproducts samples at Ludlow Monitoring Station and the Nash Hill Covered Storage tanks. Additional EnQual-Water monitoring for TOC in the Quabbin system continued and weekly reports now have additional graphs or data for UV254 (addition of online monitoring), Quabbin Reservoir algae data, Ludlow Monitoring and CWTP finished water disinfection byproducts results.
- Staff continued work with DCR on the purchase, deployment, and care of a water quality-profiling buoy on the Quabbin reservoir. Procurement and installation of the two 300-pound buoy anchors is underway. Upgrades of modems and dataloggers for the Wachusett buoys underway.

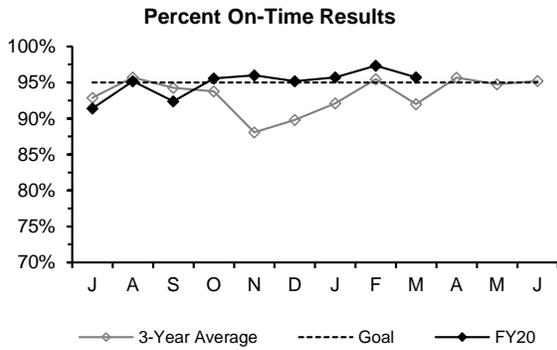
- Staff completed annual bulk chemical purity sampling to ensure its quality and monitor contract compliance. Provided an update on chemical supply conditions and the COVID19 pandemic. All bulk chemical supplies are at acceptable levels and vendors are not experiencing any issues with manufacture, distribution or transport.

Environmental Quality-Wastewater

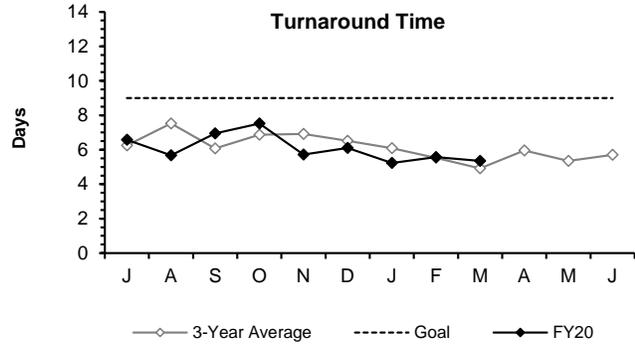
- Biweekly harbor wide monitoring continued until early March, and then was suspended because of laboratory field staff unavailability due to COVID-19 response. Seasonal CSO Receiving Water monitoring in variance waters will resume next month at a reduced level of effort.
- Staff made the required notification of exceedance, for 2019, of the total annual effluent nitrogen load threshold in the Contingency Plan. Continued work on the receiving water quality analysis portion of the CSO Post-Construction Monitoring & Performance Assessment project; Continued to prepare for CSO notification requirements in the new CSO variances.

Laboratory Services

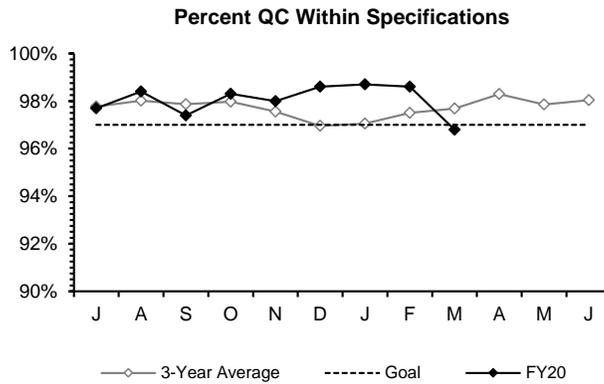
3rd Quarter - FY20



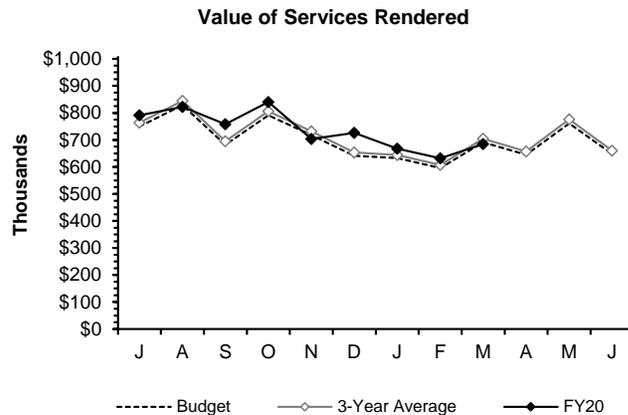
The Percent On-Time measurement met the 95% goal.



Turnaround Time met the 9-day goal.



Percent of QC tests meeting specifications fell to slightly below the 97% in-house goal in March due to an error that impacted a large number of QC results, but did not impact reportable samples.



Value of Services Rendered met the annual budget projection.

Highlights:

ENQUAL:

Conducted the 1st field trial of the Fluidion unit. The Fluidion is a field instrument that can be remotely deployed and activated for the analysis of *E. coli* or Enterococcus. The test results can also be remotely uploaded when complete.

Performance:

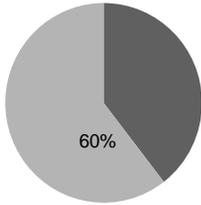
Met on-time and turnaround time indicators in March at reduced staffing level.

CONSTRUCTION PROGRAMS

Projects In Construction

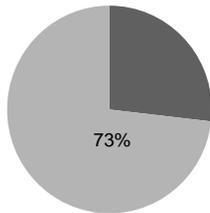
3rd Quarter– FY20

Money



■ Amount Remaining
■ Billed to Date

Time



■ Days Remaining
■ Days Expended

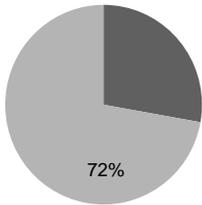
Southern Extra High Pipeline Section 111

Project Summary: This project consists of 6,800 linear feet of 36-inch water main in Dedham and Westwood and includes pipe jackings at the Dedham Corporate MBTA Station and at the MassDOT Route 95 East Street Rotary.

Notice to Proceed: 10-Aug-2018 **Contract Completion:** 7-Nov-2020

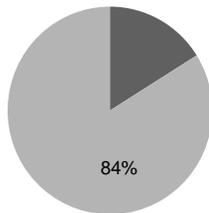
Status and Issues: As of March, Crew 1 Installed Gate 36" Gate Valve at Sta. 48+25 and installed two 36" X 8" MJ Tee at Sta. 48+20 & Sta. 48+41 and by-pass piping for Gate Vault structure in Rustcraft Road. Crew 2 Installed 128 LF 36" Steel pipe on both sides of I-95 at East Street Rotary. Crew 3 Installed 53 LF of 12" DWWD new water main and installed a two access manhole on both sides of I-95 at East Street Rotary.

Money



■ Amount Remaining
■ Billed to Date

Time



■ Days Remaining
■ Days Expended

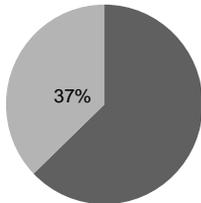
Chelsea Creek Headworks Upgrade

Project Summary: This project involves a major upgrade to the entire facility including: automation of screening collection & solids conveyance, replacement of the odor control, HVAC and electrical systems.

Notice to Proceed: 22-Nov-2016 **Contract Completion:** 21-Nov-2020

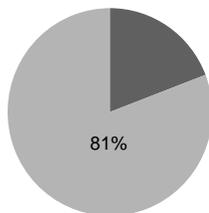
Status and Issues: As of March, the Contractor backfilled the card reader and gate motor duct bank at the south east entrance. They removed grit collection chain and flights from Channel 1 and cleaned the channel for chain replacement. They also worked in the Grit Bin Room and drilled and installed adhesive dowels into the floor slab.

Money



■ Amount Remaining
■ Billed to Date

Time



■ Days Remaining
■ Days Expended

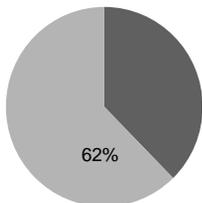
Cottage Farm & Gillis PS Roof Replacement

Project Summary: This project involves the replacement of the rubber roofing membrane system at the Cottage Farm CSO and the Gillis Pumping station.

Notice to Proceed: 10-Jul-2019 **Contract Completion:** 9-Jul-2020

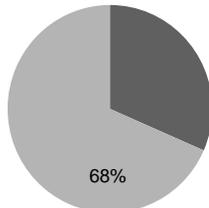
Status and Issues: As of March, the Contractor demolished the existing flat roof and completed 98% installation of roof at Gillis Pump Station. At Cottage Farm, they replaced and sealed insulation & Ethylene propylene diene monomer (EPDM) on lower roof's 1, 2, & 3 and high roof and replaced roof drains/strainers. Also, they created extension to interior of parapet/pre-cast concrete panels with pressure treated wood for lower coping cover to secure to.

Money



■ Amount Remaining
■ Billed to Date

Time



■ Days Remaining
■ Days Expended

Commonwealth Ave Pump Station Improvements

Project Summary: This project will provide a new connection to the station from two low service pipelines in Commonwealth Avenue and add low service pumps so that the City of Newton can be supplied in the event of a City Tunnel failure.

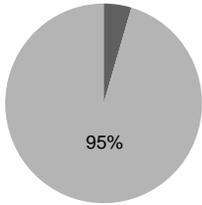
Notice to Proceed: 28-Feb-2019 **Contract Completion:** 30-Sep-2020

Status and Issues: As of March, the Contractor poured concrete for thrust block Type B detail B in median, equipment pads for condensing units south of West Building, concrete pipe supports for discharge piping and surge control valve in East Building basement, and second base floor and associated concrete pipe supports in Vault D.

Projects In Construction

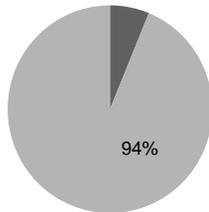
3rd Quarter– FY20

Money



- Amount Remaining
- Billed to Date

Time



- Days Remaining
- Days Expended

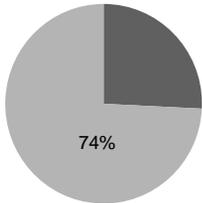
NIH Section 110 - Stoneham

Project Summary: This project consists of the replacement of 14,000 linear feet of 48-inch diameter transmission main in the Town of Stoneham.

Notice to Proceed: 5-Sep-2017 **Contract Completion:** 1-Jun-2020

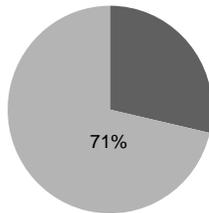
Status and Issues: As of March, Contractor worked sporadically during the month on Contract punchlist work.

Money



- Amount Remaining
- Billed to Date

Time



- Days Remaining
- Days Expended

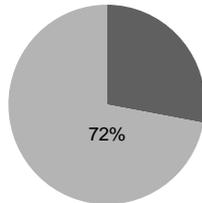
Capital Improvements at the Biosolids Facility

Project Summary: This project involves the replacement of nine mechanical conveyors and ancillary equipment, as well as three sludge processing rotary dryer drums.

Notice to Proceed: 9-Apr-19 **Contract Completion:** 21-Aug-20

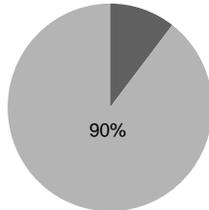
Status and Issues: As of March, the Contractor completed Train No 3. They continued construction work on Train No 6.

Money



- Amount Remaining
- Billed to Date

Time



- Days Remaining
- Days Expended

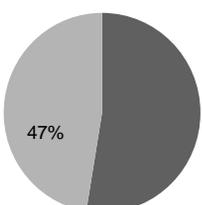
Winthrop Terminal VFD and Motor

Project Summary: This project involves the replacement of 6, 600-HP motors, VFDs and associated electrical components in the Winthrop Terminal Facility.

Notice to Proceed: 16-Jun-2016 **Contract Completion:** 12-Mar-2020

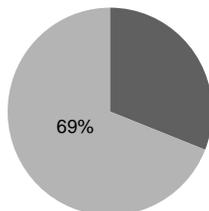
Status and Issues: VFD No 5 commission test on-going.

Money



- Amount Remaining
- Billed to Date

Time



- Days Remaining
- Days Expended

Gravity Thickener Rehabilitation

Project Summary: This project involves the upgrade of all six gravity thickeners, including the complete replacement of each tank's sludge and scum thickening equipment and 5 of the 6 FRP dome covers.

Notice to Proceed: 11-May-2018 **Contract Completion:** 4-Feb-2021

Status and Issues: As of March, the Contractor Installed FRP cover (90%)Placed grout floor, performed control panel testing, electrical testing and torque testing of the mechanism. In addition, they continued work on installing high pressure plant water connection and started work on replacing flushing water hydrant.

CSO CONTROL PROGRAM

3rd Quarter – FY20

All 35 projects in the Long-Term CSO Control Plan were complete as of December 2015 in compliance schedule milestones in the Federal District Court Order. MWRA is conducting a multi-year CSO post-construction monitoring program and performance assessment that will culminate in a report to EPA and DEP in December 2021 verifying whether the court-ordered long-term levels of CSO control are attained. Of the \$911.1 million budget in the FY20 CIP for the CSO Control Program, approximately \$6.3 million remain to be spent, as described below.

Project/Item	Status as of March 31, 2020
<p>BWSC Dorchester Interceptor Inflow Removal</p>	<p>The CSO MOU/FAA with BWSC included \$5.4 million for additional inflow removal from BWSC's Dorchester Interceptor system as part of the South Dorchester Bay Sewer Separation project, of which MWRA transferred \$1.7 million to the BWSC CSO account and \$1.6 million of that was withdrawn by BWSC to fund related design and construction work. On May 17, 2017, MWRA's Board of Directors authorized removing the remaining \$3.76 million from the MOU/FAA (which ended on June 30, 2017) and including this funding amount in a separate, 4-year financial assistance agreement with BWSC effective July 1, 2017. The new agreement limits MWRA financial assistance to reimbursement of the eligible costs of BWSC construction work reviewed and approved by MWRA, up to \$3.76 million.</p> <p>BWSC expects to submit construction contract plans to MWRA for approval, then award the contract, in the fall of 2020, and complete the work within the term of the agreement (by June 30, 2021).</p>
<p>City of Cambridge Memorandum of Understanding and Financial Assistance Agreement</p>	<p>The City of Cambridge attained substantial completion of its last project, CAM004 Sewer Separation, in December 2015 in compliance with Schedule Seven, and attained substantial completion of related surface restoration work by the end of 2017. MWRA made a final transfer of funds to the Cambridge CSO account in December 2017, in the amount of \$1,254,551, to cover eligible costs through June 30, 2018, when the 22 year-old, \$100.2 million MOU/FAA ended.</p> <p>Cambridge continues to support ongoing MWRA review of the construction contracts Cambridge managed under the CSO MOU and Financial Assistance Agreement. Staff expect to complete the review and issue a final eligibility certification by June 30, 2020.</p>
<p>City of Somerville Financial Assistance Agreement</p>	<p>By this agreement, MWRA will provide up to \$1.4 million for Somerville's repair of its combined sewer trunk line upstream of the Somerville Marginal CSO Facility. Pursuant to the agreement, the repair work is intended to maintain the full in-system storage capacity of the trunk sewer to support CSO control. Somerville is in design and expects to award the construction contract in 2021.</p>
<p>MWRA CSO Performance Assessment – Contract 7572</p>	<p>MWRA issued the Notice to Proceed with the contract for CSO Post-Construction Monitoring and Performance Assessment to AECOM Technical Services, Inc., in November 2017. The contract includes CSO inspections, overflow metering, hydraulic modeling, system performance assessments and water quality impact assessments, culminating in the submission of a report to EPA and DEP in December 2021 verifying whether the court-ordered levels of CSO control are attained.</p> <ul style="list-style-type: none"> • AECOM completed refinements to the upgrade and recalibration of MWRA's hydraulic model in January 2020. Calibrated model results have allowed a comparison of model predicted CSO discharges with the discharges measured in the CSO metering program that began in April 2018. A key objective of the CSO performance assessment is to bring the model and meter results closer together to gain stakeholder confidence in the accuracy of the model in predicting CSO discharges and assessing compliance with the Long Term Control Plan's (LTCP) Typical Year levels of control. • On February 14, 2020, MWRA filed a Supplemental Progress Report with the Federal District Court describing completion of model calibration refinements and presenting current system Typical Year performance predictions compared with the LTCP's level of control. • MWRA will issue a fourth semiannual progress report on April 30, 2020, covering the data collection and CSO discharge quantification period of July 1 – December 31, 2019, calibration of MWRA's hydraulic model and updated Typical Year model predictions, and other work progress. • Temporary CSO meters continue to be employed at 36 of the original 57 metered locations, in accordance with Amendment 1 to the AECOM contract. • MWRA and AECOM continue to conduct, in close coordination with the CSO communities, investigations into the higher overflow activities measured at several outfalls to better understand the factors contributing to overflows and identify system adjustments that may help bring discharges into compliance with the long-term levels of control. <p>On August 30, 2019, DEP issued five-year CSO variances to water quality standards for the Lower Charles River/Charles Basin and the Alewife Brook/Upper Mystic River effective through August 31, 2024. The variance conditions include receiving water quality modeling and CSO and stormwater sampling; the evaluation of additional CSO controls; other requirements intended to minimize CSO discharges, their impacts and public health risk; and preparation of updated CSO control plans for these waters.</p> <ul style="list-style-type: none"> • AECOM continues to make progress in developing the receiving water models for the Charles River and the Alewife Brook/Upper Mystic River. MWRA staff support the modeling effort by collecting CSO and stormwater quality data with the assistance of the cities of Cambridge, Somerville, Arlington and Medford. • Specific additional CSO mitigation projects required by the variances will be added to the AECOM Contract 7572 by Amendment 2, authorized by the Board on 3/18/20.

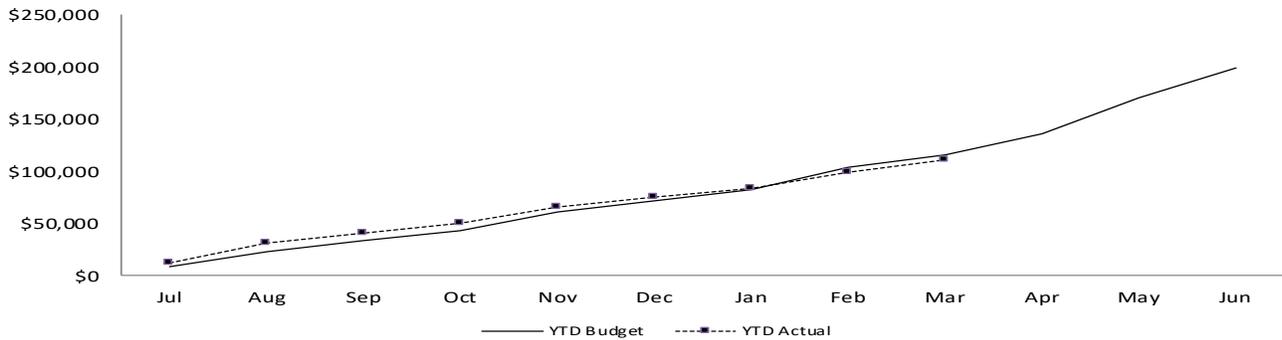
CIP Expenditures 3rd Quarter - FY20

FY20 Capital Improvement Program Expenditure Variances through March by Program (\$ in thousands)				
Program	FY20 Budget Through March	FY20 Actual Through March	Variance Amount	Variance Percent
Wastewater	63,256	69,545	6,289	10%
Waterworks	45,716	38,269	(7,447)	-16%
Business and Operations Support	7,452	2,992	(4,460)	-60%
Total	\$116,424	\$110,806	(\$5,618)	-5%

Project overspending within Wastewater was due to timing of community requests for grants and loans for the Infiltration/Inflow (I/I) Program, contractor progress for the Residuals/Electrical/Mechanical/Drum Dryer Replacements, Chelsea Creek Headworks Upgrades Construction, work anticipated in FY19 that was completed in FY20 for the Clinton Roofing Rehabilitation, and earlier than anticipated equipment purchases for the Wastewater Meter Equipment project. This was partially offset by updated schedule for the Nut Island Odor Control and HVAC Improvements, Dorchester Interceptor Sewer Construction, updated schedule for the Dorchester I/I Removal Construction, vibration issue on VFD No. 5 for the Winthrop Terminal Facility VFD Replacement Construction, timing of work for the Gravity Thickener Rehabilitation contract, and project scope change for the Clinton Valves and Pipe Replacement project. Project underspending in Waterworks was due to timing of community loan requests, less than anticipated consultant progress for Section 50/57 Water and Section 21/20/19 Sewer Design, paving delays for SEH Section 111 Construction 2, and schedule changes for CWTP Ancillary Modifications and CP-1 Shafts 6,8, and 9A. This was partially offset by contractor progress for SEH Section 111 Construction 3, work anticipated in FY19 that was completed in FY20 for the Bellevue 2/Turkey Hill Tank Painting and Cosgrove Intake Roof Repair, and timing of final work for the Wachusett Aqueduct Pumping Station Design/CA/REI contract.

Budget vs. Actual CIP Expenditures (\$ in thousands)

Total FY20 CIP Budget of \$199,147



Construction Fund Management

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

Cash Balance as of 3/28/20	\$119.3 million
Unused capacity under the debt cap:	\$1.54 billion
Estimated date for exhausting construction fund without new borrowing:	MAY-20
Estimated date for debt cap increase to support new borrowing:	Not anticipated at this time
Commercial paper/Revolving loan outstanding:	\$128 million
Commercial paper capacity / Revolving Loan	\$350 million
Budgeted FY20 Cash Flow Expectancy*:	\$183 million

* Cash based spending is discounted for construction retainage.

DRINKING WATER QUALITY AND SUPPLY

Source Water – Microbial Results and UV Absorbance

3rd Quarter – FY20

Source Water – Microbial Results

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

Sample Site: Quabbin Reservoir

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

All samples collected during the 3rd Quarter were below 20 cfu/100ml. **For the current six-month period, 0.0% of the samples have exceeded a count of 20 cfu/100mL.**

Sample Site: Wachusett Reservoir

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

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

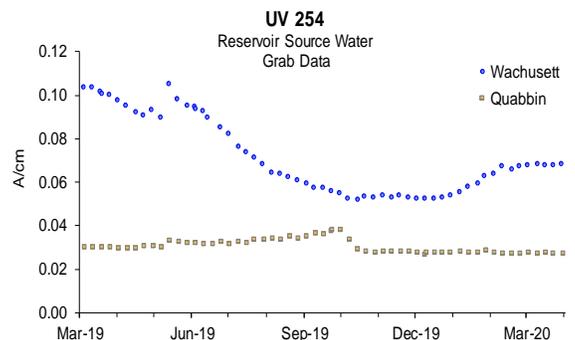
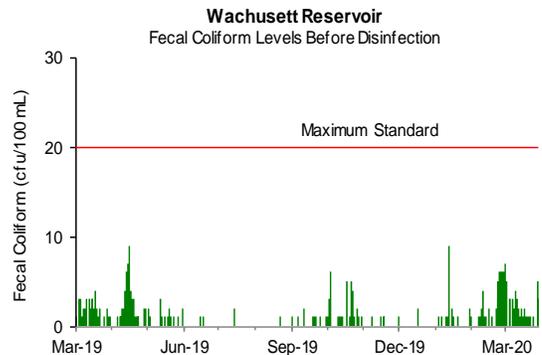
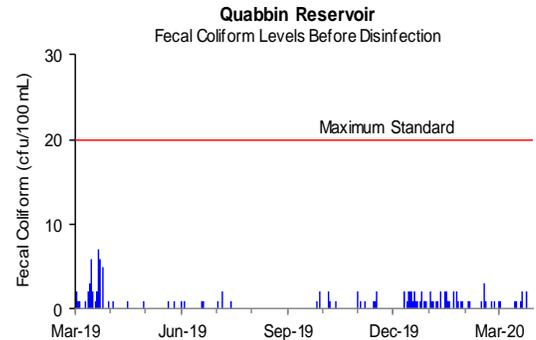
All samples collected during the 3rd Quarter were below 20 cfu/100ml. **For the current six-month period, 0.0% of the samples exceeded a count of 20 cfu/100mL.**

Source Water – UV Absorbance

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

Quabbin Reservoir UV-254 levels are currently around 0.027 A/cm.

Wachusett Reservoir UV-254 levels are currently around 0.68 A/cm.



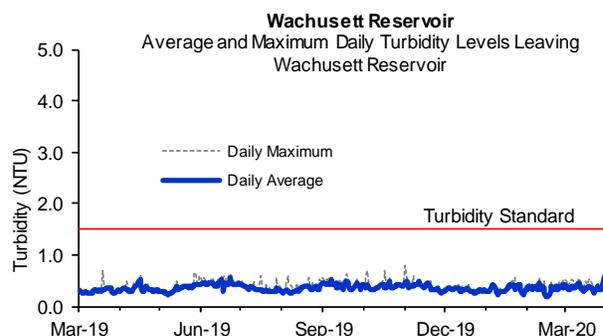
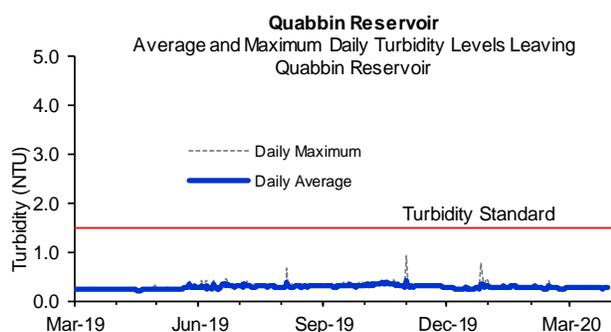
Source Water – Turbidity

3rd Quarter – FY20

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

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

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

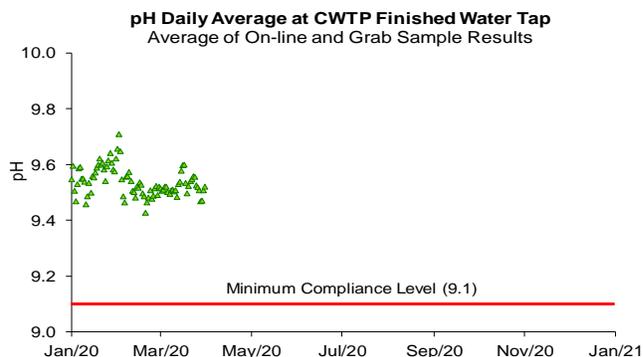
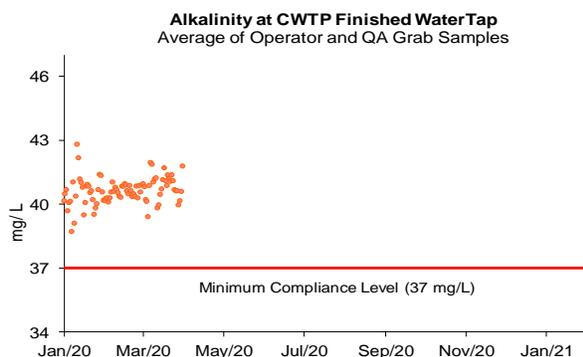


Treated Water – pH and Alkalinity Compliance

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

Each CVA community provides its own corrosion control treatment. See the CVA report: www.mwra.com/water/html/awqr.htm.

Distribution system samples were collected on March 10, 11, and 12, 2020. Distribution system sample pH ranged from 9.4 to 9.6 and alkalinity ranged from 41 to 43 mg/L. No sample results were below DEP limits for this quarter.



Treated Water – Disinfection Effectiveness

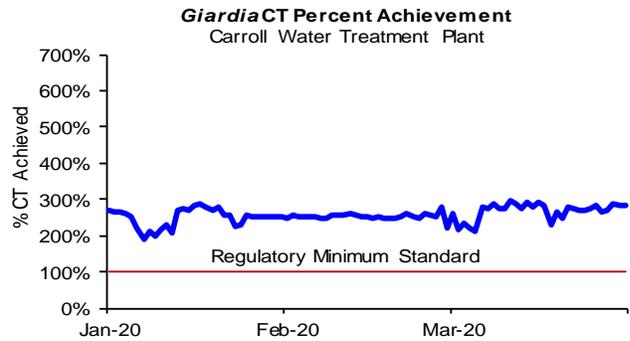
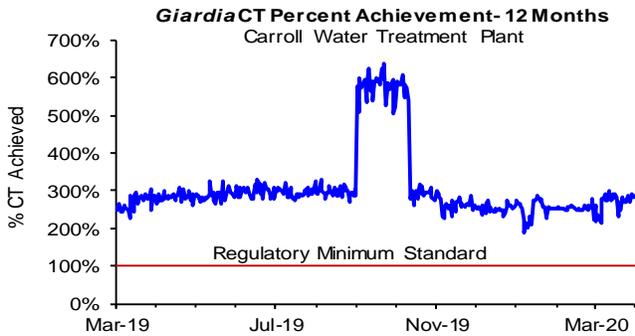
3rd Quarter – FY20

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

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

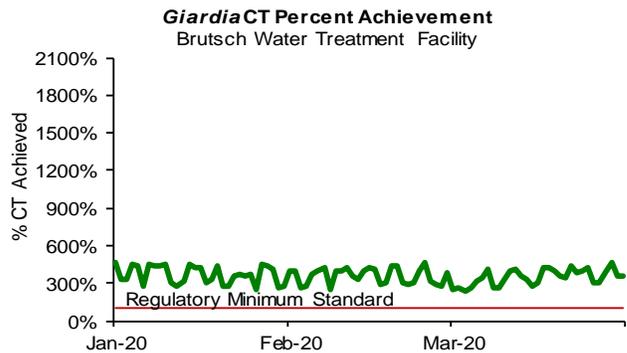
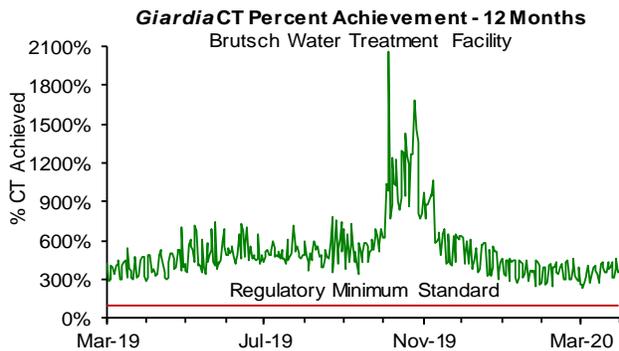
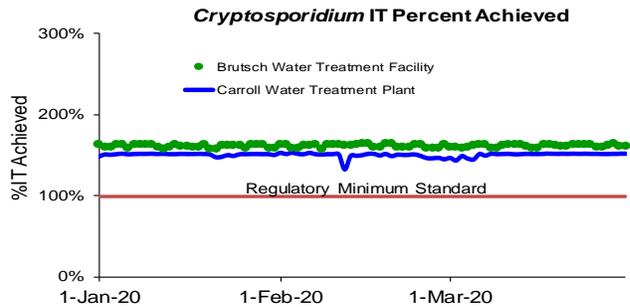
Wachusett Reservoir – MetroWest/Metro Boston Supply:

- Ozone dose at the CWTP varied between 1.6 to 2.4 mg/L for the quarter.
- Giardia* CT was maintained above 100% at all times the plant was providing water into the distribution system this quarter, as well as every day for the last fiscal year.
- Cryptosporidium* IT was maintained above 100% during the month. Off-spec water was less than 5%.
- The ozone dose was proactively increased from early September 2019 to mid October 2019 in response to a *Chryso-sphaerella* algae bloom. This is visible in the top left graph.



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

- The chlorine dose at BWTF is adjusted in order to achieve MWRA's seasonal target of >0.75 mg/L (November 01 – May 31) and >1.0 mg/L (June 1– October 31) at Ludlow Monitoring Station.
- The chlorine dose at BWTF varied between 1.2 to 1.3 mg/L for the quarter.
- Giardia* CT was maintained above 100% at all times the plant was providing water into the distribution system for the quarter.
- Cryptosporidium* IT was maintained above 100% during the month. Off-spec water was less than 5%.



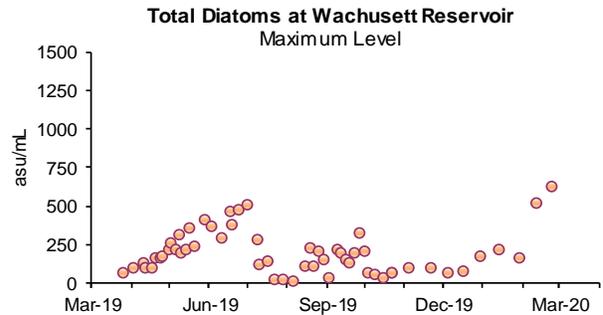
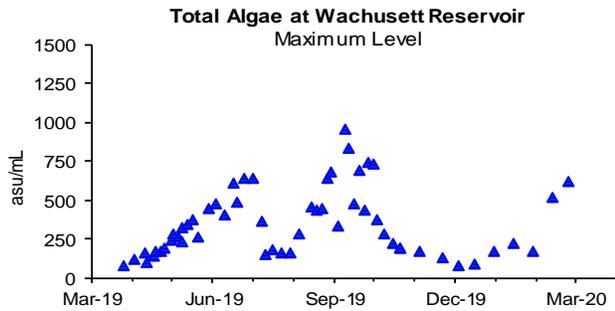
Source Water - Algae

3rd Quarter – FY20

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

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

In the 3rd quarter, no taste and odor complaints which may be related to algae were reported from the local water departments.

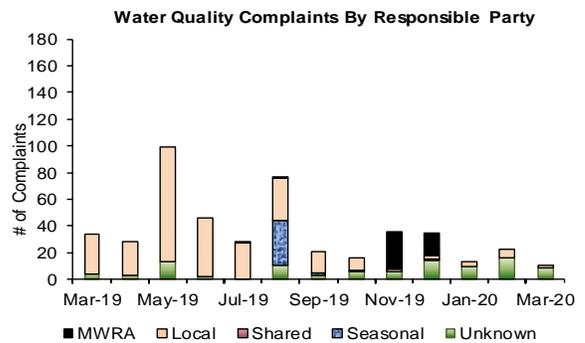
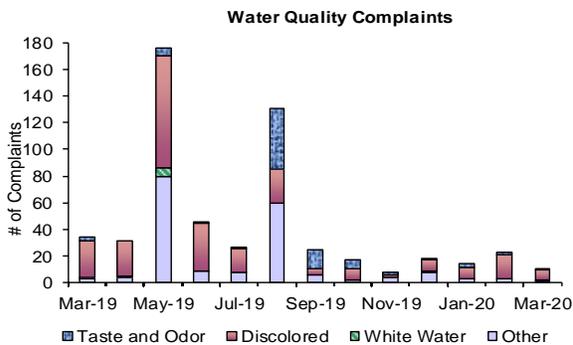


Drinking Water Quality Customer Complaints: Taste, Odor, or Appearance

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

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

Communities reported 48 complaints during the quarter compared to 70 complaints from 3rd Quarter of FY19. Of these complaints, 35 were for "discolored water", 5 were for "taste and odor", 1 was for "white water", and 7 were for "other". Of these complaints, 12 were local community issues, 1 was an MWRA related issue, and 35 were unknown in origin.



Bacteria & Chlorine Residual Results for Communities in MWRA Testing Program

3rd Quarter – FY20

While all communities collect bacteria samples and chlorine residual data for the Total Coliform Rule (TCR), data from the 44 systems that use MWRA's Laboratory are reported below.

The MWRA TCR program has 141 sampling locations. These locations include sites along MWRA's transmission system, water storage tanks and pumping stations, as well as a subset of the community TCR locations.

Samples are tested for total coliform and Escherichia coli. *E.coli* is a specific coliform species whose presence likely indicates potential contamination of fecal origin.

If *E.coli* are detected in a drinking water sample, this is considered evidence of a potential public health concern. Public notification is required if repeat tests confirm the presence of *E.coli* or total coliform.

Total coliform provide a general indication of the sanitary condition of a water supply. If total coliform are detected in more than 5% of samples in a month (or if more than one sample is positive when less than 40 samples are collected), the water system is required to investigate the possible source/cause with a Level 1 or 2 Assessment, and fix any identified problems.

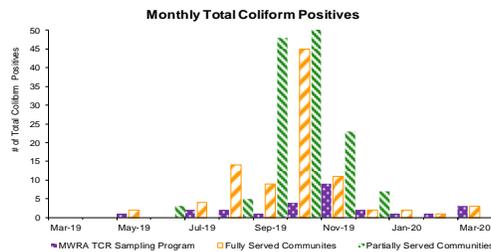
A disinfectant residual is intended to maintain the sanitary integrity of the water; MWRA considers a residual of 0.2 mg/L a minimum target level at all points in the distribution system.

Highlights

In the 3rd Quarter, 6 of the 6,159 community samples (0.10% system-wide) submitted to MWRA labs for analysis tested positive for total coliform (January: Boston, Lexington; February: Norwood; March: Arlington). Five of the 1,923 Shared Community/MWRA samples (0.26%) tested positive for total coliform (January: Lexington; February: Norwood; March: Arlington). No sample tested positive for *E.coli*. Only 0.3% of the Fully Served community samples had chlorine residuals lower than 0.2 mg/L for the quarter.

NOTES:

- MWRA total coliform and chlorine residual results include data from community locations. In most cases these community results are indicative of MWRA water as it enters the community system; however, some are strongly influenced by local pipe conditions. Residuals in the MWRA system are typically between 1.0 and 2.8 mg/L.
- The number of samples collected depends on the population served and the number of repeat samples required.
- These communities are partially supplied, and may mix their chlorinated supply with MWRA chloraminated supply.
- Part of the Chicopee Valley Aqueduct System. Free chlorine system.



		Total Coliform		E.coli # Positive	Assessment Required
		# Samples (b)	# (%) Positive		
MWRA	MWRA Locations	336	0 (0%)	0	
	Shared Community/MWRA sites	1587	5 (0.32%)	0	
	Total: MWRA	1923	5 (0.26%)	0	No
Fully Served	ARLINGTON	176	3 (1.70%)	0	No
	BELMONT	104	0 (0%)	0	
	BOSTON	773	1 (0.13%)	0	No
	BROOKLINE	223	0 (0%)	0	
	CHELSEA	169	0 (0%)	0	
	DEER ISLAND	52	0 (0%)	0	
	EVERETT	169	0 (0%)	0	
	FRAMINGHAM	238	0 (0%)	0	
	LEXINGTON	118	1 (0.85%)	0	No
	LYNNFIELD	18	0 (0%)	0	
	MALDEN	232	0 (0%)	0	
	MARBLEHEAD	72	0 (0%)	0	
	MARLBOROUGH	126	0 (0%)	0	
	MEDFORD	204	0 (0%)	0	
	MELROSE	108	0 (0%)	0	
	MILTON	101	0 (0%)	0	
	NAHANT	29	0 (0%)	0	
	NEWTON	276	0 (0%)	0	
	NORTHBOROUGH	48	0 (0%)	0	
	NORWOOD	103	1 (0.97%)	0	No
	QUINCY	339	0 (0%)	0	
	READING	119	0 (0%)	0	
	REVERE	195	0 (0%)	0	
	SAUGUS	104	0 (0%)	0	
	SOMERVILLE	252	0 (0%)	0	
	SOUTHBOROUGH	30	0 (0%)	0	
	STONEHAM	91	0 (0%)	0	
	SWAMPSCOTT	56	0 (0%)	0	
	WALTHAM	216	0 (0%)	0	
	WATERTOWN	126	0 (0%)	0	
WESTON	45	0 (0%)	0		
WINTHROP	72	0 (0%)	0		
	Total: Fully Served	4984	6 (0.12%)		
Partially Served	BEDFORD	56	0 (0%)	0	
	CANTON	91	0 (0%)	0	
	HANSCOM AFB	33	0 (0%)	0	
	NEEDHAM	123	0 (0%)	0	
	PEABODY	187	0 (0%)	0	
	WAKEFIELD	133	0 (0%)	0	
	WELLESLEY	112	0 (0%)	0	
	WILMINGTON	87	0 (0%)	0	
	WINCHESTER	98	0 (0%)	0	
	WOBURN	195	0 (0%)	0	
CVA	SOUTH HADLEY FD1	60	0 (0%)	0	
	Total: CVA & Partially Served	1175	0 (0.0%)		
	Total: Community Samples	6159	6 (0.10%)		

Chlorine Residuals in Fully Served Communities

	2019												2020		
	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar		
% \leq 0.1	0.1	0.0	0.0	0.0	0.2	0.3	0.7	1.1	1.7	0.2	0.1	0.1	0.1		
% \leq 0.2	0.1	0.1	0.1	0.1	0.7	1.3	2.3	3.3	3.3	1.5	0.4	0.2	0.2		
% \leq 0.5	0.4	0.3	0.3	0.9	2.5	4.5	7.2	8.7	7.7	4.1	2.0	1.5	1.1		
% \leq 1.0	1.7	1.4	1.9	3.2	7.0	11.0	14.9	17.8	12.6	7.3	3.9	2.9	3.5		
% \geq 1.0	98.4	98.7	98.1	96.8	93.0	89.0	85.1	82.2	87.4	92.7	96.1	97.2	96.5		

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

3rd Quarter – FY20

Total Trihalomethanes (TTHMs) and Haloacetic Acids (HAA5s) are by-products of disinfection treatment with chlorine. TTHMs and HAA5s are of concern due to their potential adverse health effects at high levels. EPA's locational running annual average (LRAA) standard is 80 µg/L for TTHMs and 60 µg/L for HAA5s.

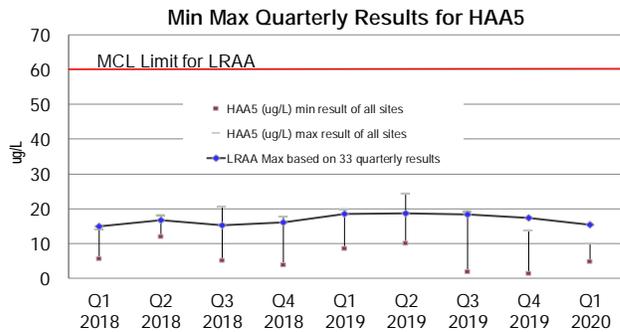
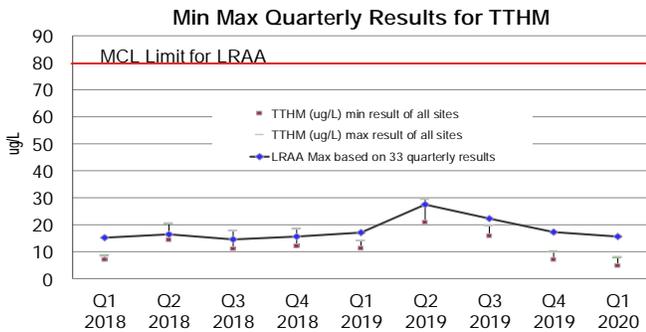
The locational running annual average calculated quarterly at each individual sampling location must be below the Total HAA5 or Total TTHM MCL standard. The charts below show the highest and lowest single values for all sites, and the LRAA of the highest location each quarter.

Partially served and CVA communities are responsible for their own compliance monitoring and reporting, and must be contacted directly for their individual results. The chart below combines data for all three CVA communities data (Chicopee, Wilbraham and South Hadley FD1). Although, they are separately regulated, however each community is regulated individually.

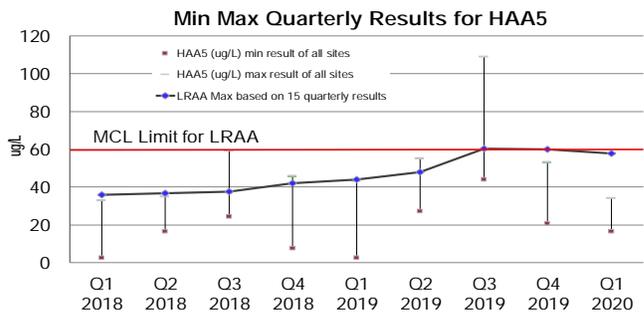
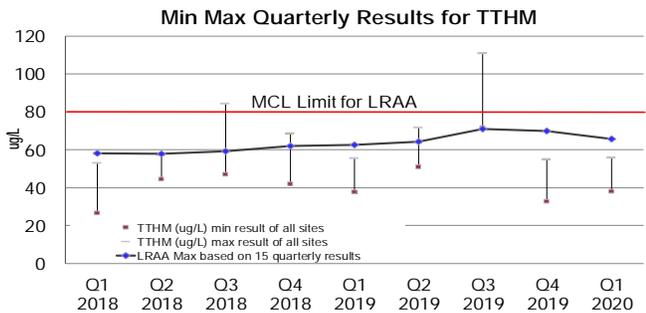
Bromate is tested monthly as required for water systems that treat with ozone. Bromide in the raw water may be converted into bromate following ozonation. EPA's RAA MCL standard for bromate is 10 µg/L.

The LRAA for TTHMs and HAA5s for MWRA's Compliance Program (represented as the line in the top two graphs below) remain below current standards. The Max LRAA in the quarter for TTHMs = 15.7 µg/L; HAA5s = 15.4 µg/L. The current RAA for Bromate = 0.0 µg/L. During the Q4 2019 sampling, one CVA community exceeded an HAA5 Operational Evaluation Level at three locations. While this does not result in a violation this requires an analysis and review of their water system and a report to MADEP. No LRAA exceedances or violations occurred this quarter for any of the CVA communities. MWRA and the CVA communities continue to closely monitor and manage the disinfection process to minimize DBP production.

MetroBoston Disinfection By-Products



CVA Disinfection By-Products (Combined Results)



Water Supply and Source Water Management

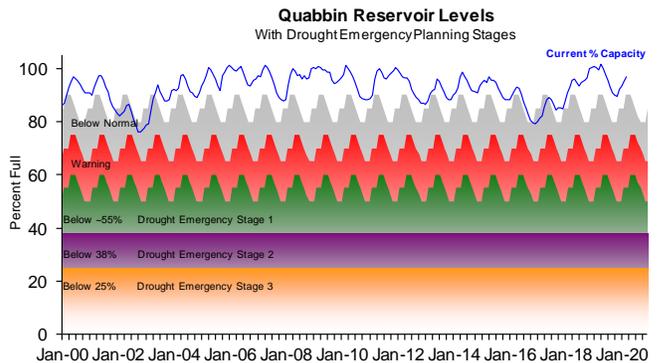
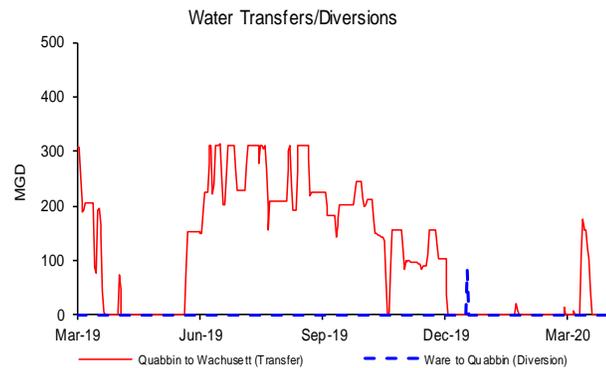
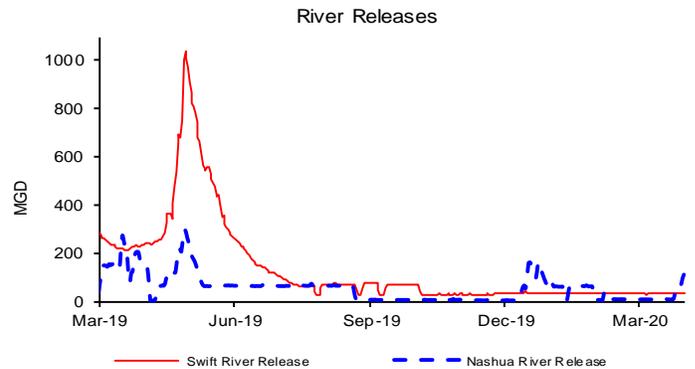
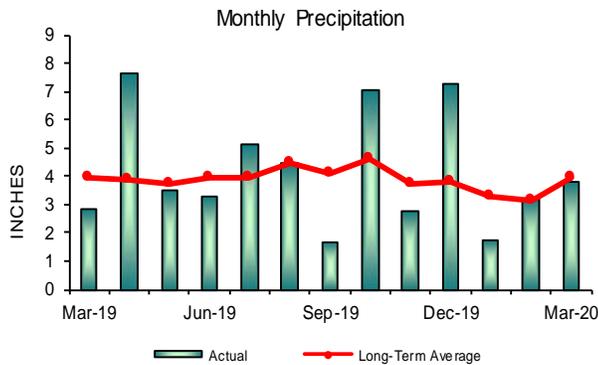
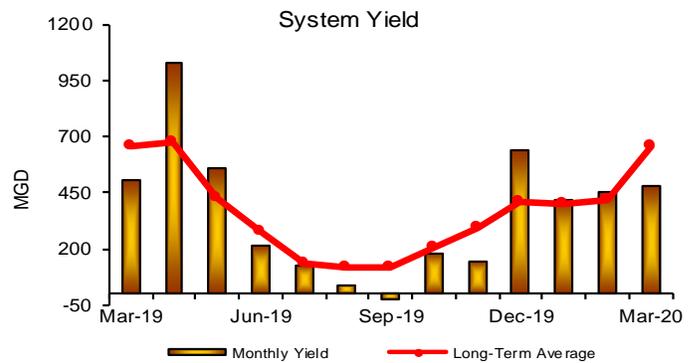
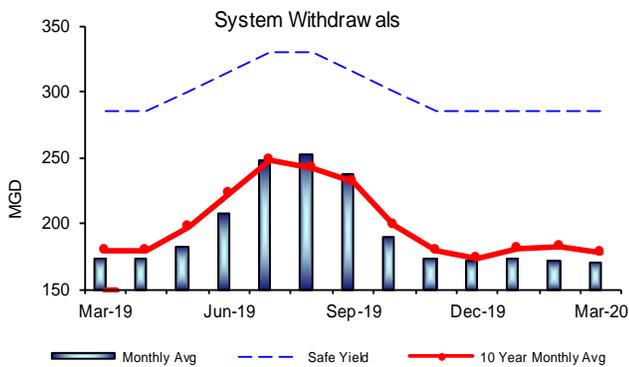
3rd Quarter – FY20

Background

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

Outcome

The volume of the Quabbin Reservoir was at 96.8% as of March 31, 2020; a 4.7% increase for the quarter, which represents an addition of more than 19.4 billion gallons of storage and an increase in elevation of 2.57' for the quarter. System withdrawal for the quarter was below the 10 year monthly average. Precipitation and Yield for the quarter were below their respective long term quarterly averages.



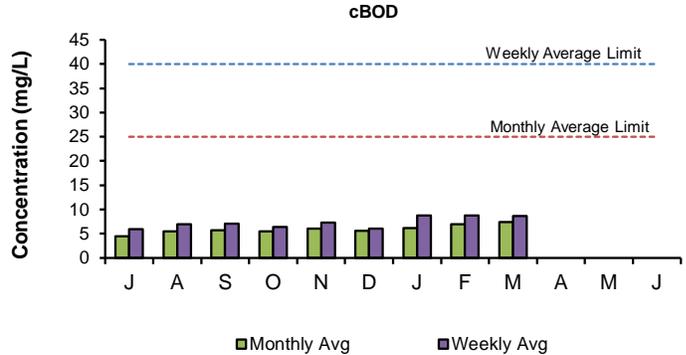
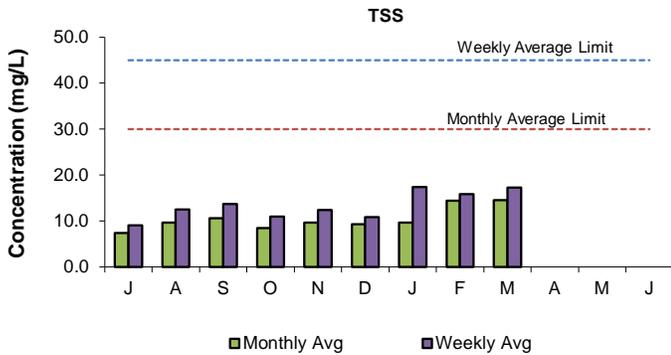
WASTEWATER QUALITY

NPDES Permit Compliance: Deer Island Treatment Plant 3rd Quarter - FY20

NPDES Permit Limits

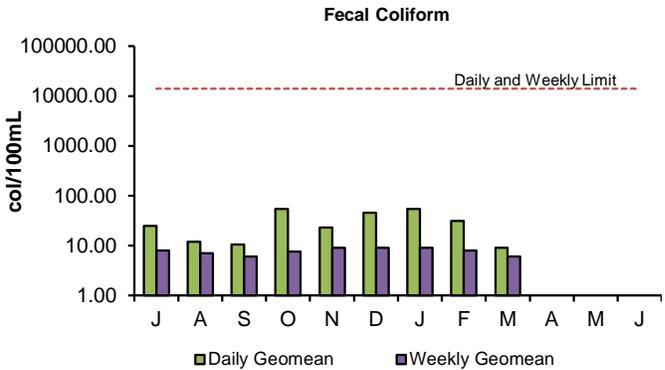
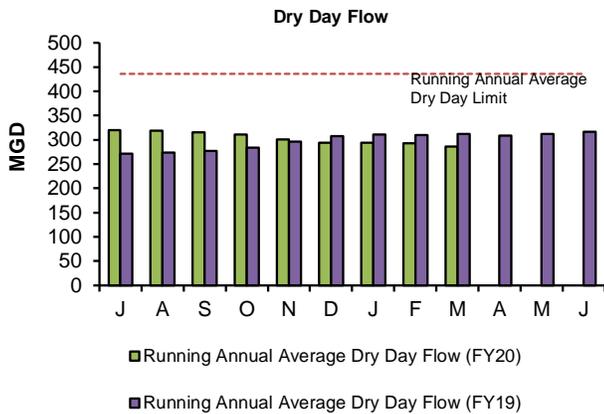
Effluent Characteristics		Units	Limits	January	February	March	3rd Quarter Violations	FY20 YTD Violations
Dry Day Flow (365 Day Average):		mgd	436	294.0	292.8	286.6	0	0
cBOD:	Monthly Average	mg/L	25	6.2	6.9	7.4	0	0
	Weekly Average	mg/L	40	8.8	8.8	8.7	0	0
TSS:	Monthly Average	mg/L	30	9.6	14.4	14.5	0	0
	Weekly Average	mg/L	45	17.4	15.9	17.3	0	0
TCR:	Monthly Average	ug/L	456	2.2	0.0	0.0	0	0
	Daily Maximum	ug/L	631	43.3	0.0	0.0	0	0
Fecal Coliform:	Daily Geometric Mean	col/100mL	14000	54.0	31.0	9.0	0	0
	Weekly Geometric Mean	col/100mL	14000	9.0	8.0	6.0	0	0
	% of Samples >14000	%	10	1.0	0.0	0.0	0	0
	Consecutive Samples >14000	#	3	0.0	0.0	0.0	0	0
pH:		SU	6.0-9.0	6.5-7.0	6.5-6.90	6.4-6.9	0	0
PCB, Aroclors:	Monthly Average	ug/L	0.000045	UNDETECTED			0	0
Acute Toxicity:	Mysid Shrimp	%	≥50	>100	>100	>100	0	0
	Inland Silverside	%	≥50	>100	>100	>100	0	0
Chronic Toxicity:	Sea Urchin	%	≥1.5	100	100	100	0	0
	Inland Silverside	%	≥1.5	100	100	100	0	0

There have been no permit violations in FY20 to date at the Deer Island Treatment Plant (DITP).



Total Suspended Solids (TSS) in the effluent is a measure of the amount of solids that remain suspended after treatment. All TSS measurements for the 3rd Quarter were within permit limits.

Carbonaceous Biochemical Oxygen Demand (cBOD) is a measure of the amount of dissolved oxygen required for the decomposition of organic materials in the environment. All cBOD measurements for the 3rd Quarter were within permit limits.



Running Annual Average Dry Day Flow is the average of all dry weather influent flows over the previous 365 days. The Dry Day Flow for the 3rd Quarter was well below the permit limit of 436 MGD.

Fecal Coliform is an indicator for the possible presence of pathogens. The levels of these bacteria after disinfection show how effectively the plant is inactivating many forms of disease-causing microorganisms. In the 3rd Quarter, all permit conditions for fecal coliform were met.

NPDES Permit Compliance: Clinton Wastewater Treatment Plant
3rd Quarter - FY20

NPDES Permit Limits

Effluent Characteristics		Units	Limits	January	February	March	3rd Quarter Violations	FY20 YTD Violations
Flow:	12-month Rolling Average:	mgd	3.01	2.51	2.47	2.40	0	3
BOD:	Monthly Average:	mg/L	20	2.70	2.90	1.70	0	0
	Weekly Average:	mg/L	20	3.00	3.30	2.50	0	0
TSS:	Monthly Average:	mg/L	20	4.50	4.40	2.90	0	0
	Weekly Average:	mg/L	20	5.10	4.90	3.80	0	0
pH:		SU	6.5-8.3	7.3-7.7	7.3-7.6	7.2-7.6	0	0
Dissolved Oxygen:	Daily Average Minimum:	mg/L	6	10.80	10.70	9.70	0	0
E. Coli:	Monthly Geometric Mean:	cfu/100mL	126	5	5	5	0	0
	Daily Geometric Mean:	cfu/100mL	409	7	7	7	0	0
TCR:	Monthly Average:	ug/L	17.6	0.26	0.00	0.26	0	0
	Daily Maximum:	ug/L	30.4	8.00	0.00	4.00	0	0
Copper:	Monthly Average:	ug/L	11.6	6.26	6.27	7.18	0	0
	Daily Maximum:	ug/L	14.0	6.26	6.27	7.89	0	0
Total Ammonia Nitrogen: November 1st - March 31st	Monthly Average:	mg/L	10.0	0.02	0.00	0.05	0	0
	Daily Maximum:	mg/L	35.2	0.12	0.00	0.29	0	0
Total Phosphorus: November 1st - March 31st	Monthly Average:	ug/L	1000	153	322	146	0	0
	Daily Maximum:	ug/L	RPT	186	375	351	0	0
Acute Toxicity*:	Daily Minimum:	%	≥100	N/A	N/A	>100	0	0
Chronic Toxicity*:	Daily Minimum:	%	≥62.5	N/A	N/A	100	0	0

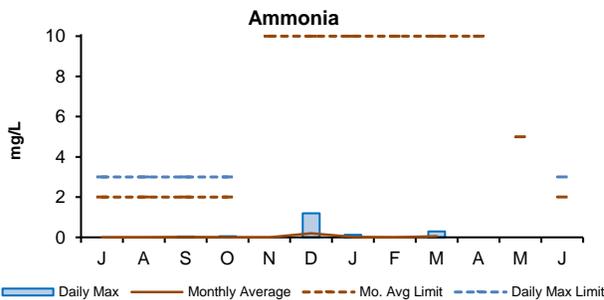
There have been three permit violations in FY20 at the Clinton Treatment Plant.

1st Quarter: There were three permit violations in the first quarter. The 12-month rolling average flow exceeded the limit of 3.01 MGD due to excessive rains in the region in late 2018.

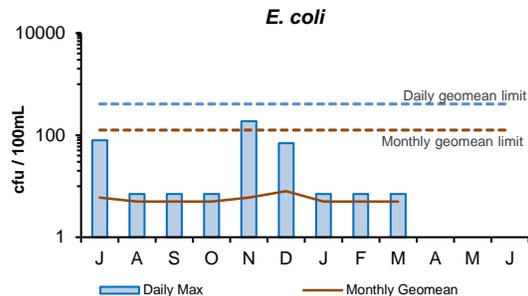
2nd Quarter: There were no permit violations in the 2nd Quarter.

3rd Quarter: There were no permit violations in the 3rd Quarter.

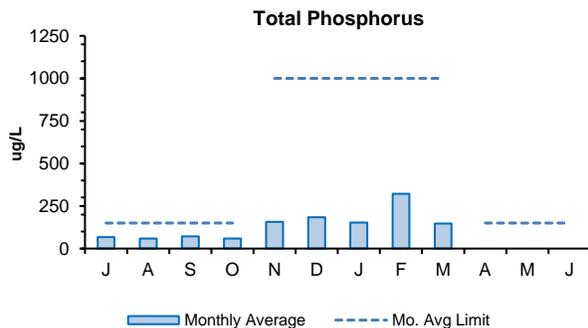
+ Toxicity testing at the Clinton Treatment Plant is conducted on a quarterly basis.



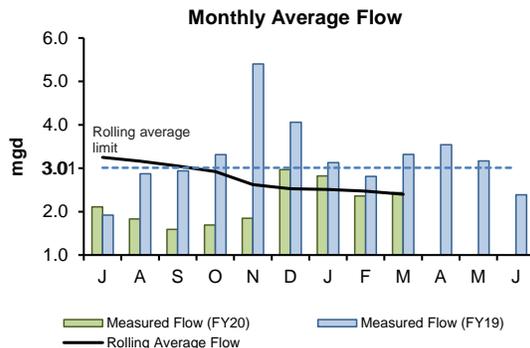
The 3rd Quarter's monthly average and daily maximum concentrations of ammonia were below the permit limits. The monthly average and daily maximum limits for the 3rd Quarter are 10 and 35.2 mg/L respectively. The permit limits are most stringent from June to October when warm weather conditions are most conducive to potential eutrophication.



E. coli is an indicator for the possible presence of pathogens. There were no violations of permit limits in the 3rd Quarter. The monthly and daily limits are 126 cfu/100 mL and 409 cfu/100 mL respectively.



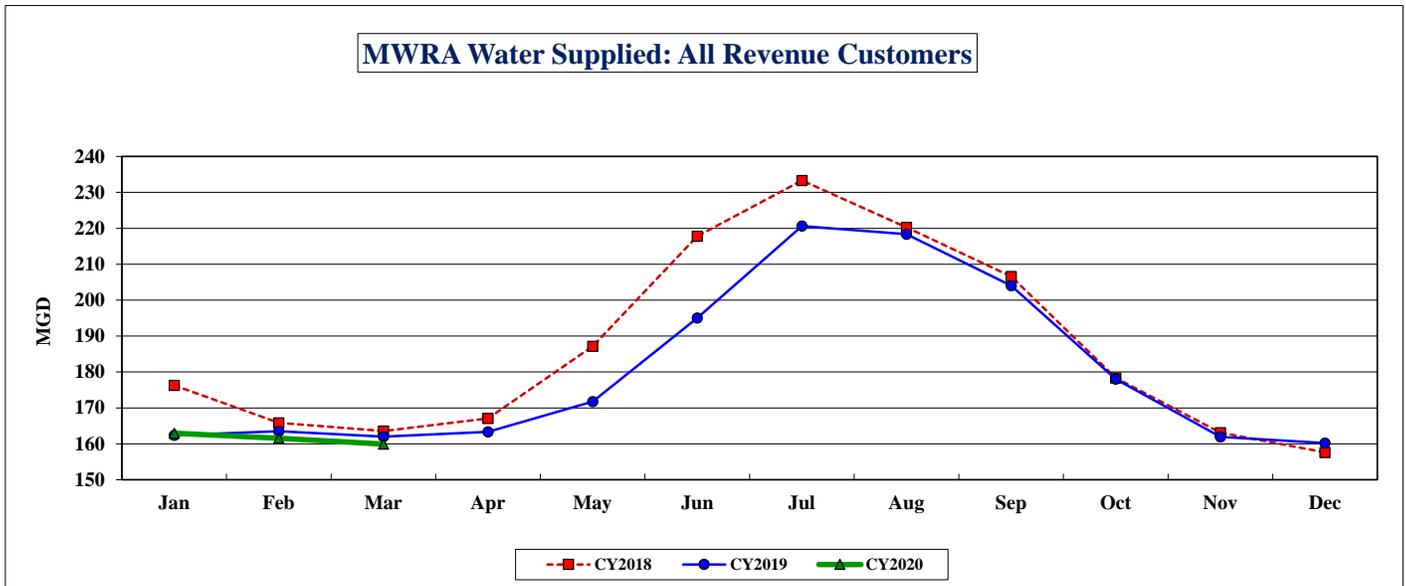
The 3rd Quarter's monthly average concentrations for total phosphorus were below permit limits. The new seasonal permit limits went into effect April 1, 2019.



The graph depicts the rolling annual average monthly flow, measured in million gallons per day, exiting the plant. The 12-month rolling average flows during the 3rd Quarter were below the permit limit.

COMMUNITY FLOWS AND PROGRAMS

Customer Water Use 3rd Quarter - FY2020



MGD	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD Average	Annual Average
CY2018	176.294	165.841	163.539	167.056	187.145	217.776	233.321	220.268	206.586	178.340	163.125	157.612	168.649	186.553
CY2019	162.367	163.492	161.984	163.350	171.773	195.025	220.621	218.376	203.996	177.998	161.941	160.207	162.585	180.220
CY2020	162.954	161.557	159.930	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	161.479	161.479

MG	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD Total	Annual Total
CY2018	5,465.125	4,643.548	5,069.719	5,011.695	5,801.508	6,533.267	7,232.949	6,828.310	6,197.590	5,528.550	4,893.739	4,885.979	15,178.392	68,091.978
CY2019	5,033.385	4,577.769	5,021.508	4,900.488	5,324.952	5,850.742	6,839.258	6,769.663	6,119.890	5,517.952	4,858.240	4,966.431	14,632.662	65,780.279
CY2020	5,051.575	4,685.154	4,957.836	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	14,694.564	14,694.564

The March 2020 Community Water Use Report was recently distributed to communities served by the MWRA waterworks systems. Each community's annual water use relative to the system as a whole is the primary factor in allocating the annual water rate revenue requirement to MWRA water communities. Calendar year 2020 water use will be used to allocate the FY2022 water utility rate revenue requirement.

MWRA customers used an average of 161.5 mgd in the 3rd quarter (Jan-Mar) of FY2020. This is a decrease of 1.1 mgd or 0.7% compared to the 3rd quarter of FY2019.

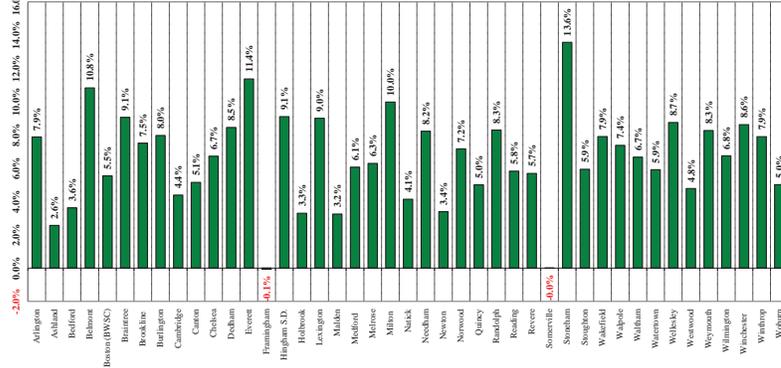
Community Wastewater Flows

3rd Quarter - FY20

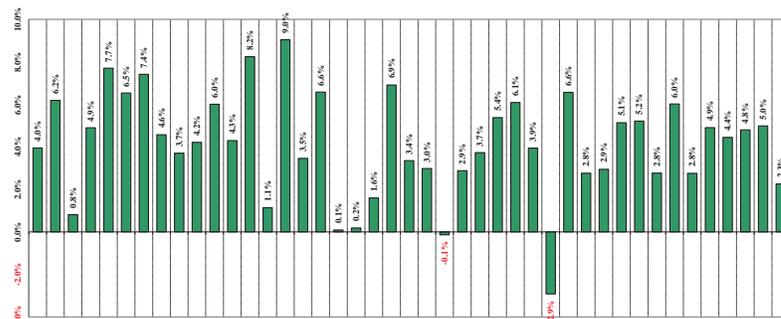
How Projected CY2019 Community Wastewater Flows Could Effect FY2021 Sewer Assessments ^{1,2,3}

The flow components of FY2021 sewer assessments will be calculated using a 3-year average of CY2017 to CY2019 wastewater flows compared to FY2020 assessments that used a 3-year average of CY2016 to CY2018 wastewater flows.

Change in Average Flow

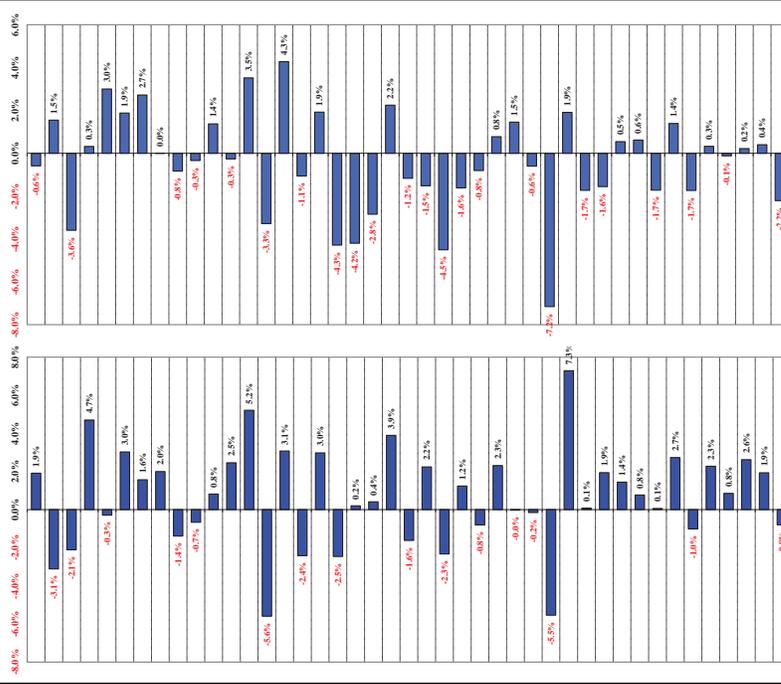


Change in Max. Month Flow

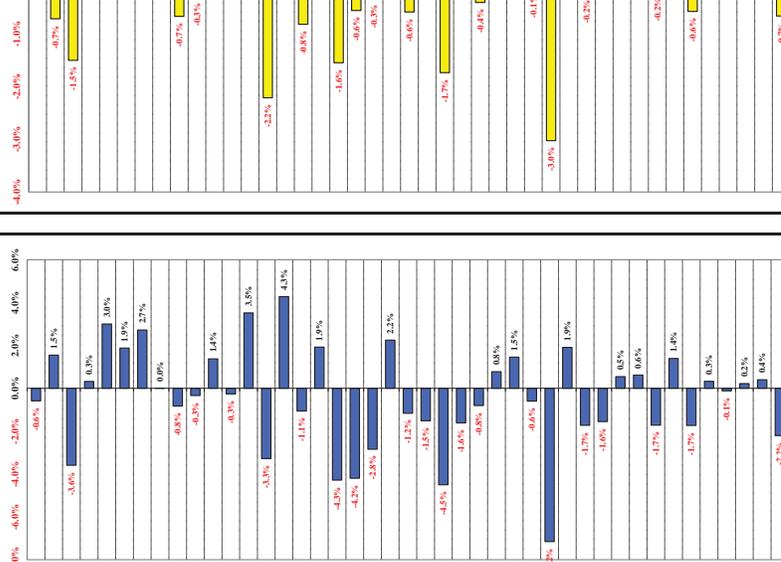


But as MWRA's sewer assessments are a ZERO-SUM calculation, a community's assessment is strongly influenced by the RELATIVE change in CY2017 to CY2019 flow share compared to CY2016 to CY2018 flow share, compared to all other communities in the system.

Change in Average Flow Share

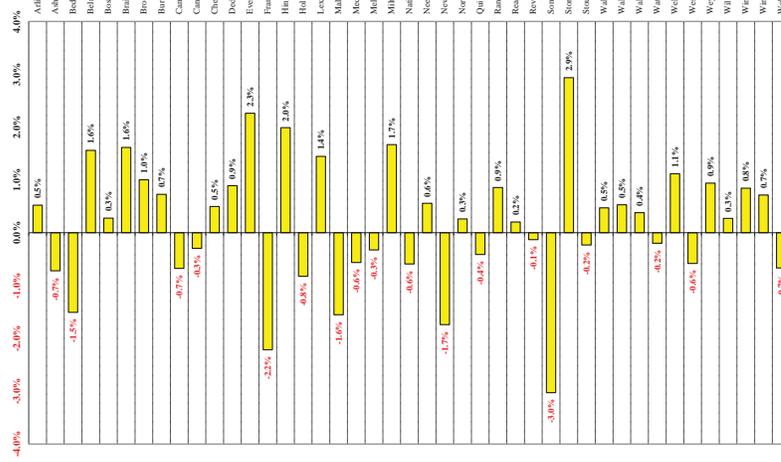


Change in Max. Month Flow Share



The chart below illustrates the change in the TOTAL BASE assessment FLOW SHARE CHANGES. ⁴

Assessment Impact Due to Change in Flow Share



¹ MWRA uses a 3-year flow average to calculate sewer assessments. Three-year averaging smooths the impact of year-to-year changes in community flow share, but does not eliminate the long-term impact of changes in each community's relative contribution to the total flow.
² Based on CY2016 to CY2019 average wastewater flows as of 02/04/20. Flow data is preliminary and subject to change pending additional MWRA and community review.
³ CY2016 to CY2019 wastewater flows based on actual meter data.
⁴ Represents **ONLY** the impact on the total BASE assessment resulting from the changes in average and maximum wastewater FLOW SHARES.

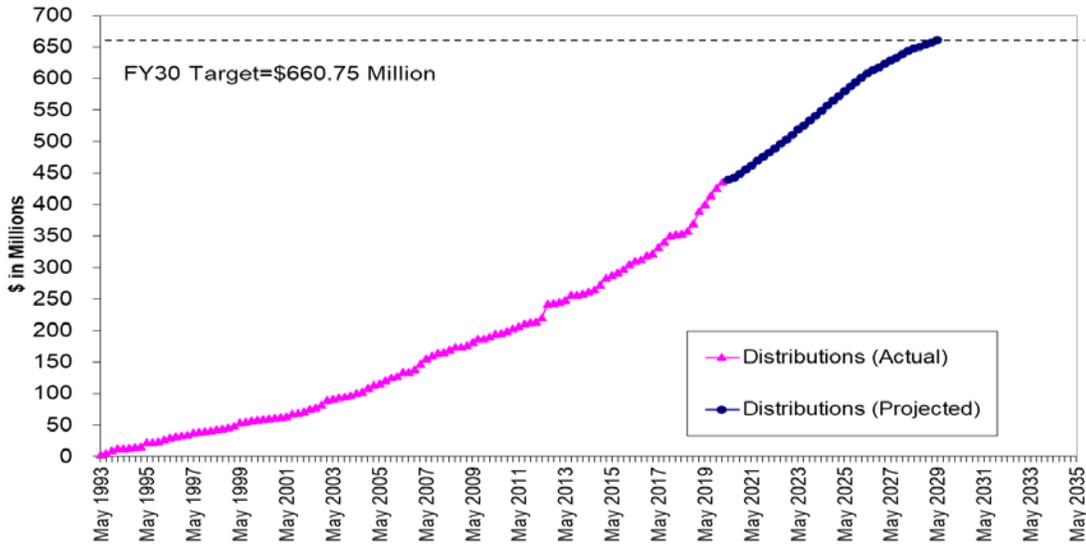
Community Support Programs

3rd Quarter – FY20

Infiltration/Inflow Local Financial Assistance Program

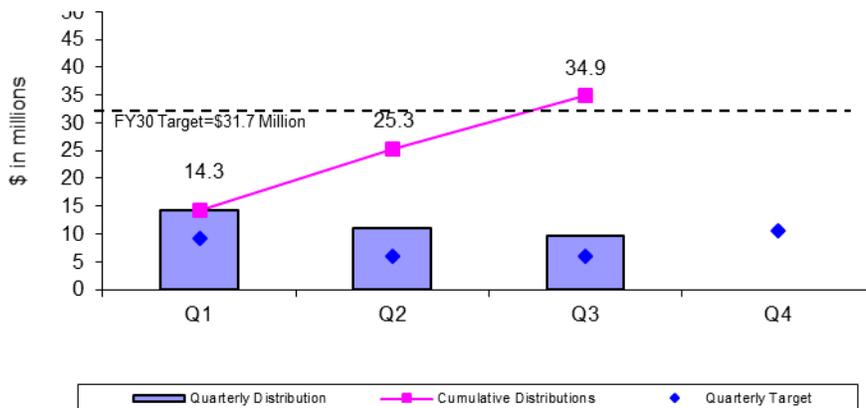
MWRA's Infiltration/Inflow (I/I) Local Financial Assistance Program provides \$760.75 million in grants and interest-free loans (average of about \$20 million per year from FY93 through FY30) to member sewer communities to perform I/I reduction and sewer system rehabilitation projects within their locally-owned collection systems. Eligible project costs include: sewer rehabilitation construction, pipeline replacement, removal of public and private inflow sources, I/I reduction planning, engineering design, engineering services during construction, etc. I/I Local Financial Assistance Program funds are allocated to member sewer communities based on their percent share of MWRA's wholesale sewer charge. Phase 1-8 funds (total \$300.75 million) were distributed as 45% grants and 55% loans with interest-free loans repaid to MWRA over a five-year period. Phase 9 through 12 funds (total \$360 million) are distributed as 75% grants and 25% loans with interest-free loans repaid to MWRA over a ten-year period. Phase 13 provides an additional \$100 million in loan-only funds (not yet included in the graph of distributions below).

I/I Local Financial Assistance Program Distribution FY93-FY30



During the 3rd Quarter of FY20, \$9.6 million in financial assistance (grants and interest-free loans) was distributed to fund local sewer rehabilitation projects in Arlington, Braintree, Chelsea, Quincy, Randolph, Wakefield, Walpole, and Winthrop. Total grant/loan distribution for FY20 is \$34.9 million. From FY93 through the 3rd Quarter of FY20, all 43 member sewer communities have participated in the program and \$436 million has been distributed to fund 601 local I/I reduction and sewer system rehabilitation projects. Distribution of the remaining funds has been approved through FY30 and community loan repayments will be made through FY40. All scheduled community loan repayments have been made.

FY20 Quarterly Distributions of Sewer Grant/Loans



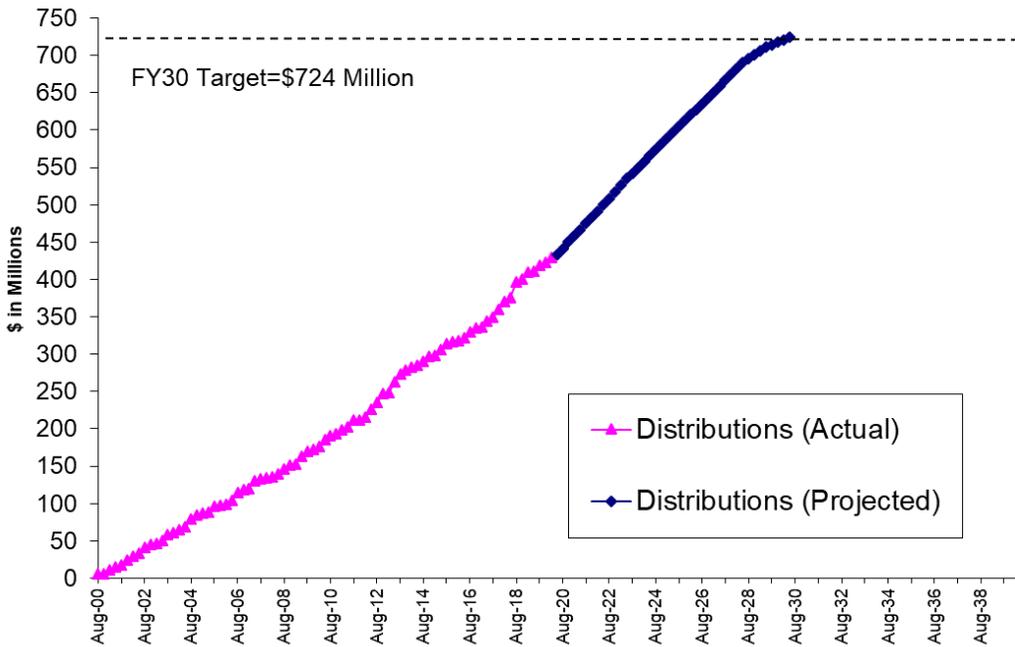
Community Support Programs

3rd Quarter – FY20

Local Water System Assistance Program

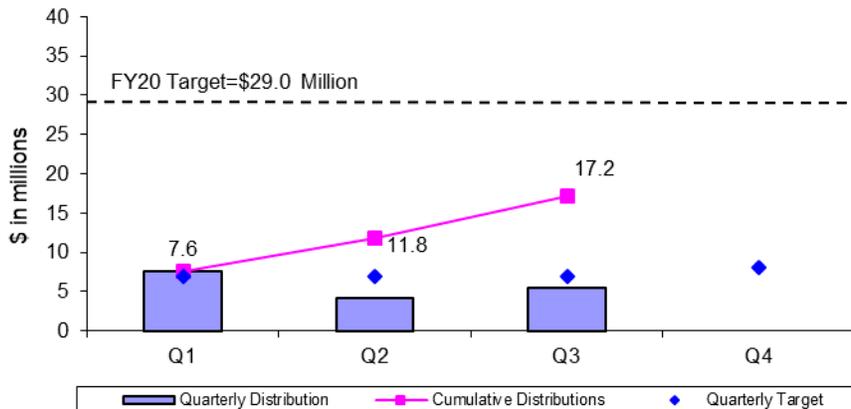
MWRA’s Local Water System Assistance Programs (LWSAP) provides \$724 million in interest-free loans (an average of about \$24 million per year from FY01 through FY30) to member water communities to perform water main rehabilitation projects within their locally-owned water distribution systems. There have been 3 phases: Phase 1 at \$222 Million, Phase 2 at \$210 Million, and Phase 3 at \$292 Million. Eligible project costs include: water main cleaning/lining, replacement of unlined water mains, lead service replacements, valve, hydrant, water meter, tank work, engineering design, engineering services during construction, etc. MWRA partially-supplied communities receive pro-rated funding allocations based on their percentage use of MWRA water. Interest-free loans are repaid to MWRA over a ten-year period beginning one year after distribution of the funds. The Phase 1 water loan program concluded in FY13 with \$222 million in loan distributions. The Phase 2 - LWSAP continues distributions through FY23. The Phase 3 Water Loan Program is authorized for distributions FY18 through FY30.

Local Water System Assistance Program Distribution FY01-FY30



During the 3rd Quarter of FY20, \$5.4 million in interest-free loans was distributed to fund local water projects in Chelsea, Marblehead, Watertown, and Weston. Total loan distribution for FY20 is \$17.2 million. From FY01 through the 3rd Quarter of FY20, \$429 million has been distributed to fund 462 local water system rehabilitation projects in 43 MWRA member water communities. Distribution of the remaining funds has been approved through FY30 and community loan repayments will be made through FY40. All scheduled community loan repayments have been made.

FY20 Quarterly Distributions of Water Loans



Community Support Programs

3rd Quarter – FY20

Lead Service Line Replacement Loan Program

By its vote on March 16, 2016, the Board approved an enhancement to the Local Water System Assistance Program to provide up to \$100 million in 10-year zero-interest loans to communities solely for efforts to fully replace lead service lines. The Lead Service Line Replacement Loan Program is also referenced as the Lead Loan Program or LLP. Each community can develop its own program, tailored to their local circumstances. MWRA's goal in providing financial assistance to member communities is to improve local water systems so that the high quality water MWRA delivers can make it all the way to the consumer's tap. The presence of a lead service line connecting a home to the main in the street can lead to elevated lead levels in tap water, especially if that water sits stagnant for an extended period. MWRA's stable water quality and effective corrosion control treatment reduce the risk that a lead service line will cause elevated lead levels, and measured lead levels in high risk homes have decreased by 90 percent since corrosion control was brought on-line in 1996. However, the risk of elevated levels remains as long as lead service lines are in use.

FY17 was the first year of the Lead Service Line Replacement Loan Program – MWRA made three Lead Loans.

FY18 was the second year of the Lead Loan Program - MWRA made five Lead Loans.

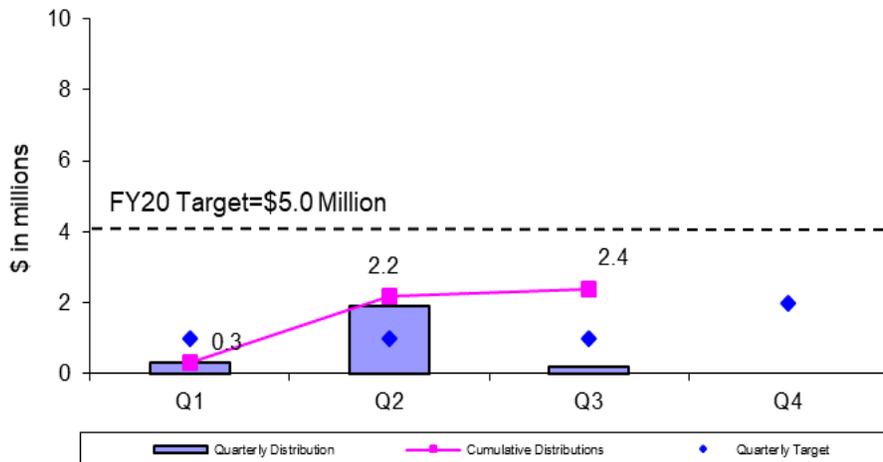
FY19 was the third year of the Lead Loan Program - MWRA made four Lead Loans.

FY20 is the fourth year of the Lead Loan Program. One Lead Loan was made during the 1st quarter of FY20: \$300,000 to Chelsea. Two Lead Loans were made during the 2nd quarter of FY20: \$1.0 Million to Everett and \$900,000 to Somerville. One Lead Loan was made during the 3rd quarter of FY20: \$160,000 to Weston.

Summary of Lead Loans:

Weston in FY20	\$0.2 Million
Everett in FY20	\$1.0 Million
Somerville in FY20	\$0.9 Million
Chelsea in FY20	\$0.3 Million
Marlborough in FY19	\$1.0 Million
Winthrop in FY19	\$0.5 Million
Chelsea in FY19	\$0.1 Million
Everett in FY19	\$1.0 Million
Needham in FY18	\$1.0 Million
Winchester in FY18	\$0.5 Million
Revere in FY18	\$0.2 Million
Winthrop in FY18	\$0.3 Million
Marlborough in FY18	\$1.0 Million
Newton in FY17	\$4.0 Million
Quincy in FY17	\$1.5 Million
Winchester in FY17	\$0.5 Million
TOTAL	\$14.0 Million

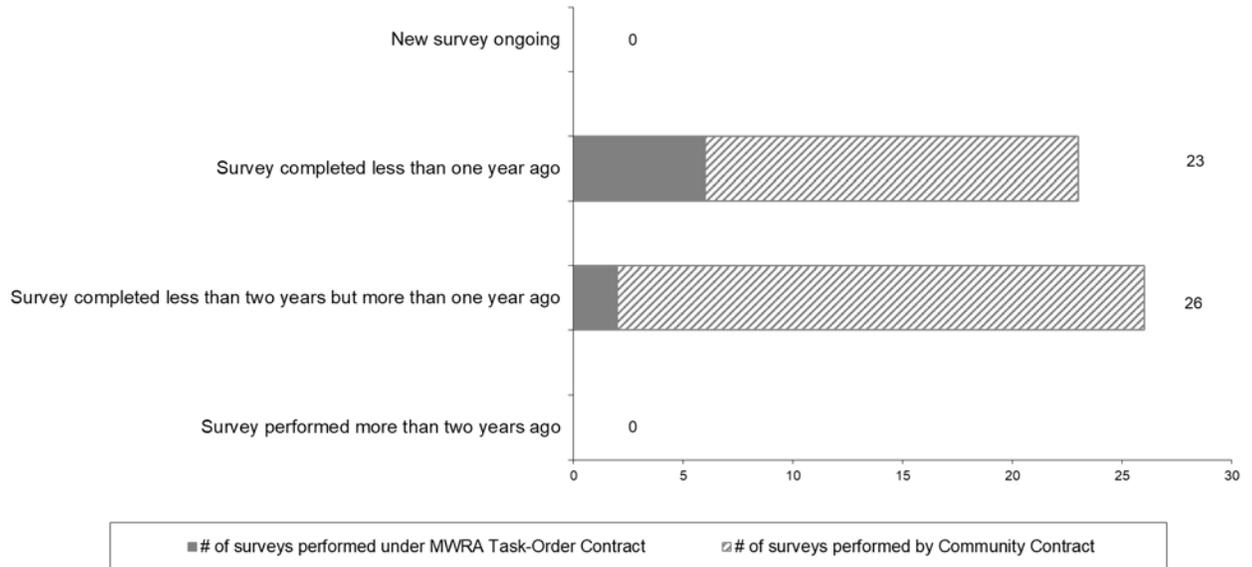
FY20 Quarterly Distributions of Lead Service Line Replacement Loans



Community Support Programs 3rd Quarter – FY20

Community Water System Leak Detection

To ensure member water communities identify and repair leaks in locally-owned distribution systems, MWRA developed leak detection regulations that went into effect in July 1991. Communities purchasing water from MWRA are required to complete a leak detection survey of their entire distribution system at least once every two years. Communities can accomplish the survey using their own contractors or municipal crews; or alternatively, using MWRA's task order leak detection contract. MWRA's task order contract provides leak detection services at a reasonable cost that has been competitively procured (3-year, low-bid contract) taking advantage of the large volume of work anticipated throughout the regional system. Leak detection services performed under the task order contract are paid for by MWRA and the costs are billed to the community the following year. During the 3rd Quarter of FY20, all member water communities were in compliance with MWRA's Leak Detection Regulation.



MWRA's Community Water Conservation Program helps to maintain average water demand below the regional water system's safe yield of 300 mgd. Current 5-year average water demand is less than 205 mgd. The local Water Conservation Program includes distribution of water conservation education brochures (indoor and outdoor bill-stuffers) and low-flow water fixtures and related materials (shower heads, faucet aerators, toilet leak detection dye tabs, and instructions), all at no cost to member communities or individual customers. The Program's annual budget is \$25,000 for printing and purchase of materials. Annual distribution targets and totals are provided in the table below. Distributions of water conservation materials are made based on requests from member communities and individual customers.

	Annual Target	Q1	Q2	Q3	Q4	Annual Total
Educational Brochures	100,000	640	19,735	109		20,484
Low-Flow Fixtures (showerheads and faucet aerators)	10,000	791	832	433		2,056
Toilet Leak Detection Dye Tablets	_____	419	35,431	258		36,108

BUSINESS SERVICES

Procurement: Purchasing and Contracts

3rd Quarter - FY20

Background:

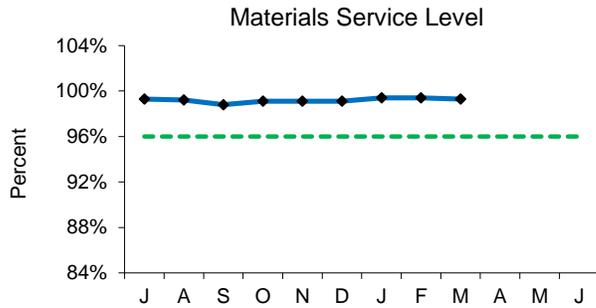
Outcome:

Purchasing

Contracts, Change Orders and Amendments

Materials Management

3rd Quarter - FY20



The service level is the percentage of stock requests filled. The goal is to maintain a service level of 96%. Staff issued 8,070 (99.3%) of the 8,123 items requested in Q3 from the inventory locations for a total dollar value of \$1,772,417.

Inventory Value - All Sites

Inventory goals focus on:

- Maintaining optimum levels of consumables and spare parts inventory
- Adding new items to inventory to meet changing business needs
- Reviewing consumables and spare parts for obsolescence
- Managing and controlling valuable equipment and tools via the Property Pass Program

The FY20 goal is to reduce consumable inventory from the July '19 base level (\$8.4 million) by 2.0% (approximately \$169,249), to \$8.2 million by June 30, 2020 (see chart below).

Items added to inventory this quarter include:

- Deer Island – modules and flowmeters for I&C; air filters and sensor cleaners for Fleet Services; lifelines for Safety; motor, switches and connectors for Electrical; gaskets for Maintenance and disinfectants and gloves for Maintenance.
- Chelsea – manual switches for Work Coordination; phone holders for Fleet Services; speakerphones for MIS; lifelines for Safety; fluke meters for Metering and transmitters for Process Control.
- Southboro – sensors for Water Quality Assurance; electrical cords for Equipment Maintenance; rubber gloves for Valve Maintenance; disinfectant cleaner and disinfectant wipes for Operations.

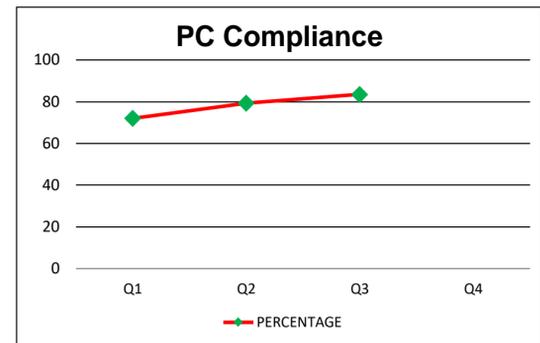
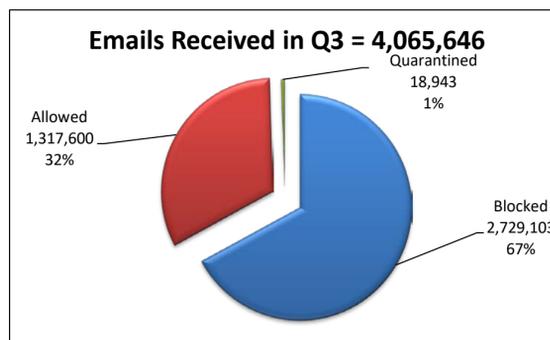
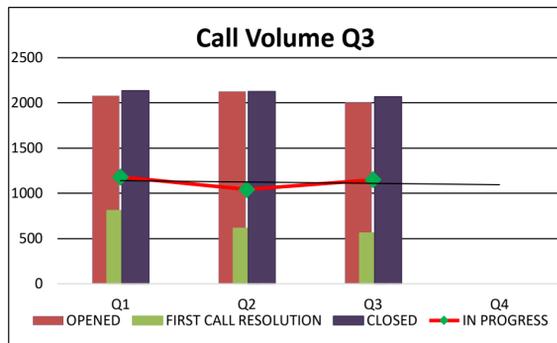
Property Pass Program:

- Due to Pandemic circumstances, one audit was conducted at Deer Island during Q3. Chelsea Property Pass audits will be reported once operations resume.
- Scrap revenue received for Q3 amounted to \$1,402. Year to date revenue received amounted to \$19,266.
- Revenue received from online auctions held during Q3 amounted to 19,361. Year to date revenue received amounted to \$206,398.

Items	Base Value July-19	Current Value w/o Cumulative New Adds	Reduction / Increase To Base
Consumable Inventory Value	8,462,463	8,523,368	60,905
Spare Parts Inventory Value	9,183,923	8,926,185	-257,738
Total Inventory Value	17,646,386	17,449,553	-196,833

Note: New adds are items added at an inventory location for the first time for the purpose of servicing a group/department to meet their business needs/objectives.

MIS Program 3rd Quarter - FY20



Performance & Backlog for Q3

- 2170 calls were completed this quarter.
- Call closure averaged 7.8 days.
- Priority 1 & 2 Service Level Agreements (SLA) were met this quarter with the exception of a single Priority 2 SLA in January

Cyber Security Q3

- In Q2, pushed 142 security fixes/updates to desktops/servers. 84% of all PCs/Laptops are compliant with approved patches.
- McAfee quarantined 2 distinct viruses from 1 PC. PCs are current with antivirus signatures for known malware.

Teleworking: Expanded the Citrix Workspace infrastructure and increased the license capacity to support 500 remote workers. Expand and promote the use of Webex for virtual meetings including Board of Directors meetings. Developed training documentation for remote access, Webex meetings, phone conferences and participation with tablets, laptops, PCs and smartphones. New pay codes added to time tracking.

Audio/Visual Upgrades: Installations moved out to April while scope is further negotiated with the vendor.

Exchange Upgrade: Exchange migration (from 2016 to 2019) was completed this quarter.

AWIA Risk and Resiliency Assessment: Phase I of the cyber security assessment through JANUS Associates completed this quarter, and the final report was issued. Phase I dealt with all Internet-facing servers and applications and all internal financial applications, as required by AWIA. Staff have begun to remediate any vulnerabilities that were found in Phase I, working to the Q1 FY21 target completion date set by AWIA. Phase II, which includes assessing all remaining internal servers and applications, will be complete and final report issued in Q4 FY20.

Chelsea Environmental Controls Monitoring System: Revised Statement of Work (SOW) was reposted in January 2020. Reviewing the two submitted vendor responses.

PBX (Telephone System) Upgrade: The Statement of Work (SOW) was submitted to the Procurement Department for review.

Fuel Management System: The implementation of FDS Fuel Management System hardware planned for April is TBS. Until then, software installation and configuration is moving forward plus limited data migration and associated verification and validation.

Infrastructure Upgrades: New Virtual Host servers were updated with firmware and security. New NetApp storage disk units are installed and configured to accommodate additional backup storage capacity.

DI Ops Hardware Segmentation: File, Print, and Application Servers have all been successfully migrated.

LIMS: LIMS Server upgrade to windows OS version 2016 completed.

GIS: Six new GIS data layers and one view were created in database to store Real Property data. These layers will help better track MWRA property. The new web service that was added will expose the new data layers and the updated web map.

Infor/Lawson Upgrade: Lawson upgrade SOW reviewed by Procurement and first comments sent to MIS for corrections.

Maximo/Lawson Interface: The Clinton Purchasing Workflows Maximo / Lawson Interface was moved to production. MIS identified a small bug that occurred due to certain non-stock warehouse site IDs being undefined. Efforts are underway to correct this issue.

Maximo: An email notification has been configured to send emails to the Users when an IT Service Request created by User is in "In Progress" status and in "Resolved" Status.

Enterprise Content Management (ECM)/e-Construction: ECM Bid closed with 6 proposers. Selection Committee met twice to review proposals and developed clarification questions for proposers that were issued by Procurement. Responses will allow ranking and determination of what proposers will be asked to provide product demonstrations.

Dental Certifications Application: Completed and published Quick Reference Card for dental office users and a User Guide for TRAC Department Application Administrators. Two dental facilities were identified to participate in pilot testing the dental permit application that TRAC Department is coordinating one pilot customer has started testing by creating an account.

Library & Records Center: **The Library** undertook 15 research requests, supplied 12 books for circulation, provided 20 articles, and 25 standards. The MWRA Library Portal supported 1094 end-user searches. Research topics included covid-19 updates, history of aqueducts, Boston Fire 1872, cavitation related to water transient, model of multispecies water quality parameters.

The Record Center (RC) added 95 new boxes and handled 194 total boxes. The RC manager attended 3 RCB meetings. The RC shredded on-site 8 bins of confidential documentation. Research included Geological Samples for Contract C58, Submittals for Walnut Hill (CWTP), and Pelletizer conveyance system (FRSA).

IT Training: For the quarter, 42 staff attended 7 classes. 5% of the workforce has attended at least one class year-to-date. New Instructional documentation for MWRA end-users included *Citrix Workspace App* job aid for user to access IT Resources remotely, *Using Maximo IT Self-Service* job aid, and *Installing Webex Meeting Software* for video and teleconferencing. Updates were made to both the *Accessing ITX Online Learning* and *Connecting to the MWRA-GUEST Wi-Fi* job aids.

Legal Matters
3rd Quarter FY 2020

PROJECT ASSISTANCE

Real Estate, Contract, Environmental and Other Support:

- **8(m) Permits:** Reviewed fifty-four (54) 8(m) permits and one (1) direct connect permit.
- **Environmental:** Drafted summary of the United States Environmental Protection Agency (EPA) Office of Enforcement and Compliance Assurance's (OECA) March 26, 2020 COVID-19 Temporary Enforcement and Compliance Policy. Clinton (Cell 1) Landfill Post-Closure Liability Review. Reviewed DEP's regulations at 310 CMR 19.00 and its guidance for post closure requirements for residual landfills.
- **Real Property:** Recorded Deed and Notice of Restriction for the Wachusett Aqueduct Dam with Worcester County Registry of Deeds and Deed and Notice of Restriction for the Alewife Brook Pump Station with Middlesex Registry of Deeds. Recorded Grant of Temporary Easement in Milton with the Norfolk Registry of Deeds for the construction of the Dorchester Interceptor Sewer Rehabilitation Project (MWRA Contract No. 7279). Recorded Extension Permit for Order of Conditions DEP File No. 297-0383 related to MWRA Project No. 7067 – NIH Pipeline in Stoneham. Reviewed First Amendment to Grant of Permanent Access Easement located at 777 Dedham Street, Canton, MA. Drafted and finalized Air Force Technical Applications Center (AFTAC) License for AFTAC's access and use of designated areas at DITP for the placement of equipment to gather information pertinent to underground, surface, and atmospheric activities. Drafted Massachusetts State Police License for the placement of an antenna array at DITP for the purpose of gathering information pertinent to communications between drones and their remote controls. Finalized Notice of Activity and Use Limitation for the Cottage Farm CSO Facility, which is related to the 2010 oil spill at the Cottage Farm CSO Facility. Reviewed temporary access rights for private property in Lynn and Revere related to Contract No.7454 Section 56 Saugus River Crossing Project. Reviewed MWRA's property rights related to MBTA's Wedgemere Station in Winchester, MWRA's former Mystic Shops parcel in Somerville, Broadway Plaza in Arlington, and for the placement of solar panels at MWRA's Arlington Covered Water Storage Tank Site, Cottage Farm CSO Facility Site, Southborough Site, and Loring Road Covered Water Storage Site.
- **Memorandum of Agreement:**
Drafted and Finalized Memorandum of Agreement between the Town of Arlington and MWRA related to cost sharing related to MWRA Contract No. 6544 - Rehabilitation of WASM 3 Sections W11/W12/W16/51 Water Mains, Medford, Somerville, and Arlington.
- **Construction Contracts Release of Retainage:**
Reviewed Partial Release of Retainage to Albanese D&S, Inc. for Northern Intermediate High Section 110-Stoneham - Contract 7067; Final Release of Retainage for Northern Intermediate High Section 110 – Stoneham and Wakefield - Contract 7478; Final Release of Retainage for Fire Protection Sprinkler System Services -Contract OP-348; Final Release of Retainage for Grounds Keeping Services at Deer Island Treatment Plant-Contract S552.
- **Miscellaneous:**
Reviewed and advised on orders and guidance related to COVID-19 pandemic. Reviewed and advised on law related to the use of federally licensed two-way radios while operating a motor vehicle.
- **Public Records Requests:**
During the third quarter of FY 2020, MWRA received one hundred fifty-four (154) public records requests and responded to one hundred fifty four (154) public records requests.

LABOR, EMPLOYMENT AND ADMINISTRATIVE

New Matters

One demand for arbitration was filed.

Matters Concluded

Settled an arbitration case alleging the MWRA violated a collective bargaining agreement when an employee alleged he was performing work of a higher title.

Received an MCAD dismissal due to settlement of a complaint alleging that the MWRA discriminated against a former employee on the basis of age, disability and race/color and retaliated against her during her employment with the MWRA.

Miscellaneous

Reviewed and advised on Families First Coronavirus Response Act.

LITIGATION/CLAIMS

New lawsuits/claims: There is one new class action claim.

IN RE: GSE Bonds Anti-Trust Litigation, No. 1:19-cv-01704 (JSR): The Authority was given notice of a pending antitrust class action against various broker dealers relating to certain government-sponsored enterprise (GSE) bond transactions. The plaintiffs allege that the defendants conspired to fix prices for certain unsecured GSE bonds. The defendants deny the allegations. Certain defendants have agreed to settle the plaintiffs' claims. On January 29, 2020, the Authority filed a claim in the class action requesting participation in the settlement.

There is one new wage attachment matter.

Worldwide Asset Purchasing Li Lic. v. (Current Employee
MWRA received one new Wage Garnishment matter filed in the Lynn District Court.

Significant Developments

MWRA v. N.E.L. Corporation, Dewberry Engineers, et al.

MWRA employees were deposed during the months of December and January. Depositions of representatives of the various parties continued throughout the month of February.

MWRA v. Bhushan & Sukhija:

Defendant homeowners submitted an 8(m) Permit Application to the MWRA Waterworks Permitting Group with proposed plans for remediating the encroached portion of the Sudbury Aqueduct land.

(Current Employee) v. MWRA

Summary Judgment Hearing was held on January 9, 2020. The Court denied MWRA's motion for summary judgment.

(Former Employee) v. MWRA

Second day of plaintiff's audio-visual deposition was completed.

Closed Cases: There are no closed cases.

Closed Claims:

Contract No. S551, Thermal and Hydro Power Plant Maintenance. MWRA entered into a Settlement Agreement with the Contractor to resolve a claim related to the replacement of the speed increaser for Hydro Turbine Generator No. 1 at the Deer Island Treatment Plant.

Subpoenas

During the 3rd Quarter of FY 2020, two subpoenas were received and no subpoenas were pending at the end of the Third Quarter FY 2020.

Wage Garnishments

There are currently fifteen Trustee Process matters, only two of which are considered active and monitored by Law Division.

SUMMARY OF PENDING LITIGATION MATTERS

TYPE OF CASE/MATTER	As of Mar 2020	As of Dec 2019	As of Sept 2019
Construction/Contract/Bid Protest (other than BHP)	2	2	2
Tort/Labor/Employment	4	4	4
Environmental/Regulatory/Other	2	2	2
Eminent Domain/Real Estate	0	0	0
Total	8	8	8
Other Litigation matters (restraining orders, etc.) 1. <u>Army Corp of Engineers v. MWRA, NSTAR & Harbor Electric</u> 2. <u>IN RE: GSE Bonds Anti-Trust Litigation</u>	2	1	1
Total – all pending lawsuits	10	9	9
Claims not in suit:	0	0	0
Bankruptcy	0	0	0
Wage Garnishment	2	1	4
TRAC/Adjudicatory Appeals	0	1	1
Subpoenas	0	0	0
TOTAL – ALL LITIGATION MATTERS	12	11	14

TRAC/MISC.

New Appeals:

There are no new appeals in 3rd Quarter FY 2020.

Settlement by Agreement of Parties

There are no Settlement by Agreement of Parties in 3rd Quarter FY 2020.

Stipulation of Dismissal

No Joint Stipulation of Dismissals filed.

Notice of Dismissal Fine paid in full

No Notices of Dismissal, Fine Paid in Full.

Tentative Decision

There are no Tentative Decisions issued in the 3rd Quarter FY 2020.

Final Decisions

There are no Final Decisions issued in the 3rd Quarter FY 2020.

INTERNAL AUDIT AND CONTRACT AUDIT ACTIVITIES

3rd Quarter FY20

Highlights

During the 3rd quarter FY20, Internal Audit (IA) completed a review of Fleet Services Non-Plated Equipment Inspections to determine if the MWRA is complying with OSHA and industry standards that require certain types of equipment to be inspected annually and to have deficiencies corrected in a timely manner. IA reviewed inspection reports for vehicle lifts, forklifts, scissor lifts, aerial lifts, and mobile cranes/buckets and found certain assets were overdue for their annual inspection and deficiencies were not corrected timely. Recommendations include developing written procedures for equipment inspections, assigning responsibility for scheduling inspections, removing equipment from service if overdue for inspections, and maintaining copies of inspection reports.

In addition, IA completed incurred cost audits of CDM Smith and Dewberry and two construction labor burden reviews. A final review of Force Account costs incurred by Cambridge was conducted with a recommended refund for excess ineligible costs taken. A review of costs incurred continued on the new HEEC cable as the project nears preparation of the tariff filing. Management advisory services included a follow-up on an inventory control task force report, DITP electricity rate and support on the MWRA's leases.

Status of Recommendations

During FY20, 33 recommendations were closed of which 22 are from prior fiscal years' audits.

IA follows-up on open recommendations on a continuous basis. All open recommendations have target dates for implementation. When a recommendation has not been implemented within 36 months, the appropriateness of the recommendation is re-evaluated.

All Open Recommendations Pending Implementation – Aging Between 0 and 36 Months

Report Title (issue date)	Audit Recommendations		
	Open	Closed	Total
Fleet Services Process Review (6/30/18)	1	4	5
Fuel Use & Mileage Tracking (12/31/18)	3	5	8
Asset Tracking – Fleet Data Verification (8/21/19)	10	6	16
Fleet Services Non-Plated Equipment Inspections (3/30/20)	11	4	15
Total Recommendations	25	19	44

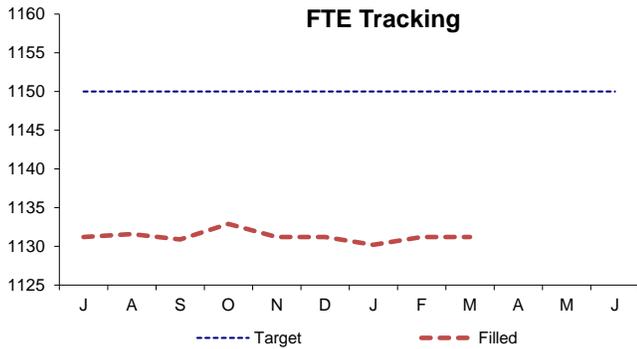
Cost Savings

IA's target is to achieve at least \$1,000,000 in cost savings each year. Cost savings vary each year based upon many factors. In some cases, cost savings for one year may be the result of prior years' audits.

Cost Savings	FY16	FY17	FY18	FY19	FY20 Q3	TOTALS
Consultants	\$88,312	\$272,431	\$118,782	\$262,384	\$611,250	\$1,353,159
Contractors & Vendors	\$1,772,422	\$3,037,712	\$1,323,156	\$3,156,524	\$1,761,910	\$11,051,724
Internal Audits	\$220,929	\$224,178	\$204,202	\$210,063	\$159,575	\$1,018,947
Total	\$2,081,663	\$3,534,321	\$1,646,140	\$3,628,971	\$2,532,735	\$13,423,830

OTHER MANAGEMENT

Workforce Management 3rd Quarter - FY20



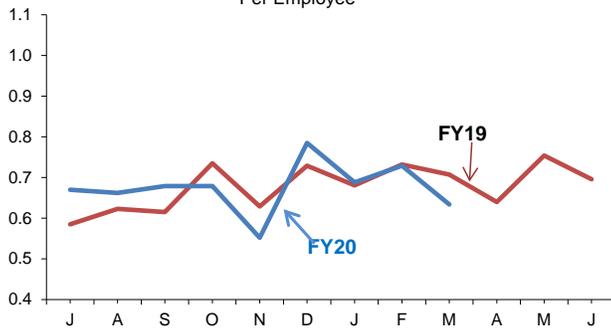
FY20 Target for FTE's = 1150
 FTE's as of March 2020 = 1131.2
 Tunnel Redundancy as of Mar 2020 = 7.0

Position Filled by Hires/Promos & Transfer for YTD



	Pr/Trns	Hires	Total
FY18	118 (61%)	74 (39%)	192
FY19	112 (60%)	76 (40%)	188
FY20	79 (59%)	54 (41%)	133

Average Monthly Sick Leave Usage Per Employee



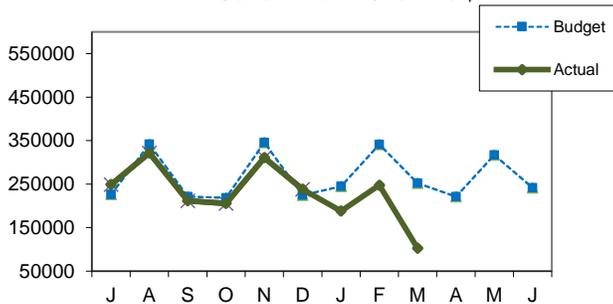
Average monthly sick leave for the 3rd Quarter of FY20 decreased as compared to the 3rd Quarter of FY19 (0.675 to 0.677)

MWRA Average Cumulative Sick Leave Use By Division Per Employee

	Number of Employees	YTD	Annualized Total	Annual FMLA %	FY19
Admin	139	5.31	7.09	24.6%	7.78
Aff. Action	6	6.34	8.45	7.2%	6.28
Executive	4	1.81	2.41	0.0%	7.05
Finance	33	3.98	5.31	0.0%	2.28
Int. Audit	6	4.58	6.11	13.9%	4.06
Law	13	5.56	7.41	9.6%	7.80
OEP	4	1.00	1.33	0.0%	5.97
Operations	926	6.31	8.41	22.2%	8.35
Tunnel Red	7	4.09	5.45	48.0%	8.11
Pub. Affs.	11	7.91	10.54	59.6%	4.45
MWRA Avg	1149	0.90	8.10	22.5%	8.13

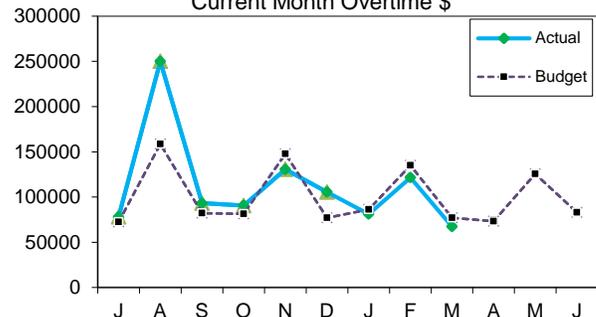
Percent of sick leave usage for FY20, attributable to Family and Medical Leave Act (FMLA) is 22.5% .

Field Operations Current Month Overtime \$



Total Overtime for Field Operations for the third quarter of 2020 was \$538k which is (\$300k) under budget. Emergency overtime was \$210k, which was (\$211k) under budget. Rain events totaled \$117k, Emergency maintenance was \$46k and snow removal was \$25k. Coverage overtime was \$127k, which was (\$21k) under budget, reflecting the month's shift coverage requirements. Planned overtime was \$201k or (\$68k) under budget. Maintenance Off-Hours was \$55k, Half-Plant Operations was \$52k, Training was \$24k and Maintenance Work Completion was \$21k. Year-to-date, FOD has spent \$2m on overtime, which is (\$341k) under budget.

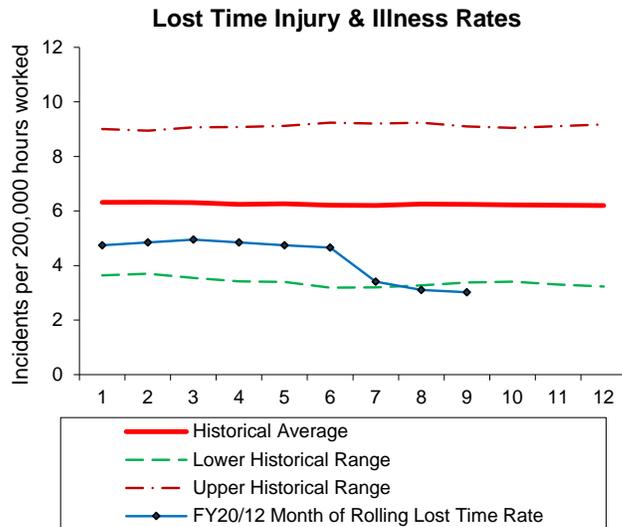
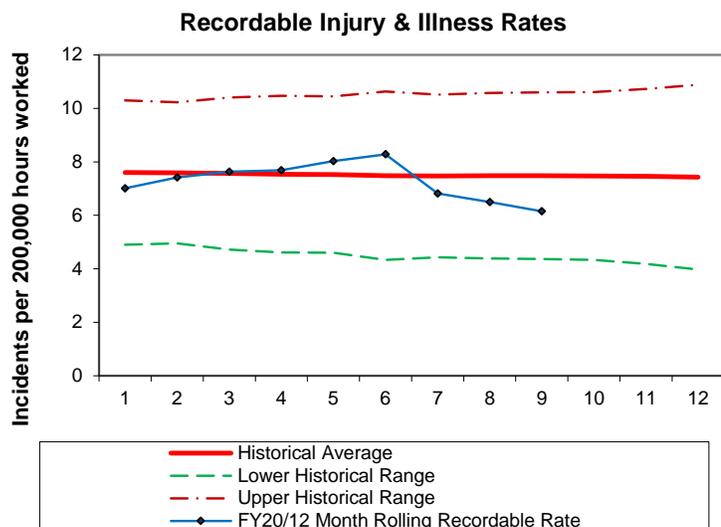
Deer Island Treatment Plant Current Month Overtime \$



Deer Island's total overtime expenditure for the third quarter was \$270K, which was \$28K or 9.4% under budget. In the Thrid quarter Deer Island experienced higher than anticipated shift coverage requirements of \$5K and planned/unplanned overtime of \$5K. This is offset by less storm coverage of (\$37k). YTD Deer Island's overtime spending is \$1.0M which is \$100k or 11% over budget due to higher spending related to the HECC cable outage of \$110k and shift coverage \$66k. This is offset by lower spending on storm coverage of (\$75k). The FY20 CEB included \$30k for HECC overtime vs. \$140k spent. The outage lasted 18 days as opposed to the 5 days anticipated.

Workplace Safety

3rd Quarter - FY20



- 1 "Recordable" incidents are all work-related injuries and illnesses which result in death, loss of consciousness, restriction of work or motion, transfer to another job, or require medical treatment beyond first aid. Each month this rate is calculated using the previous 12 months of injury data.
- 2 "Lost-time" incidents, a subset of the recordable incidents, are only those incidents resulting in any days away from work, days of restricted work activity or both - beyond the first day of injury or onset of illness. Each month this rate is calculated using the previous 12 months of injury data.
- 3 The "Historical Average" is computed using the actual MWRA monthly incident rates for FY99 through FY19. The "Upper" and "Lower Historical Ranges" are computed using these same data – adding and subtracting two standard deviations respectively.
- 4 With Changes in state law, in February 1, 2019, MWRA began record keeping and reporting according to Federal OSHA standards for injury and illness record keeping. Strictly adhering to the federal OSHA reporting regulation has caused an increase in recorded injuries and illnesses. This increase is causing both the Recordable injury and illness Rate and the Lost Time Injury and Illness rate to trend higher than in past years but does not necessarily mean there is an increase in injuries or illnesses. OSHA injuries and illnesses, and lost time are recorded differently than the Massachusetts Workers' Compensation standards and could result in an increase in the OSHA rate while the Workers' Compensation claims are decreasing. Over time, the rise on the charts should stabilize as new data replaces the older data..

WORKERS COMPENSATION HIGHLIGHTS

	3rd Quarter Information		Open Claims
	New	Closed	
Lost Time	2	12	50
Medical Only	10	19	20
Report Only	19	19	
	QYTD		FYTD
Regular Duty Returns	2		16
Light Duty Returns	0		1
Indemnity payments as of Mar 31 2020 included in open claims listed			18

COMMENTS:

Regular Duty Returns

JAN 2 Employees returned to full duty/no restrictions
FEB 0 Employees returned to full duty/no restrictions
MARCH 0 Employees returned to full duty/no restrictions

Light Duty Returns

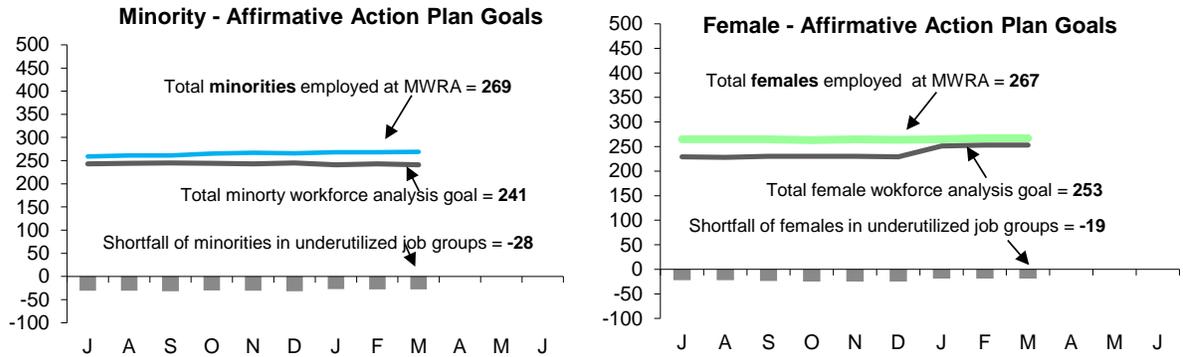
JAN - FEB - MARCH N/A

Note: Claims may initially be counted in one category and changed to another category at a later date.

Examples include a medical treatment only claim (no lost time from work) but the employee may require surgery at a later date resulting in the claim becoming a lost time claim. At that time we would only count the claim as opened but not as a new claim.

*Report only claims are closed the month they are filed.

MWRA Job Group Representation 3rd Quarter - FY20



Highlights:

At the end of Q3 FY20, 5 job groups or a total of 28 positions are underutilized by minorities as compared to 7 job groups for a total of 32 positions at the end of Q3 FY19; for females 8 job groups or a total of 19 positions are underutilized by females as compared to 6 job groups or a total of 22 positions at the end of Q3 FY19. During Q3, 6 minorities and 5 females were hired. During this same period 1 minority and 1 female were terminated.

Underutilized Job Groups - Workforce Representation

Job Group	Employees as of 3/31/2020	Minorities as of 3/31/2020	Achievement Level	Minority Over or Under Underutilized	Females As of 3/31/2020	Achievement Level	Female Over or Under Underutilized
Administrator A	23	3	3	0	11	6	5
Administrator B	24	0	7	-7	7	7	0
Clerical A	29	11	5	6	26	21	5
Clerical B	25	9	7	2	5	7	-2
Engineer A	80	25	18	7	16	18	-2
Engineer B	61	22	16	6	15	10	5
Craft A	119	15	24	-9	0	4	-4
Craft B	141	21	23	-2	3	5	-2
Laborer	66	23	15	8	5	3	2
Management A	97	24	24	0	34	34	0
Management B	43	9	6	3	9	10	-1
Operator A	67	6	14	-8	2	5	-3
Operator B	67	19	10	9	3	1	2
Professional A	29	3	5	-2	19	13	6
Professional B	163	47	40	7	79	72	7
Para Professional	53	16	13	3	26	30	-4
Technical A	56	14	10	4	7	6	1
Technical B	6	2	1	1	0	1	-1
Total	1149	269	241	56/-28	267	253	33/-19

AACU Candidate Referrals for Underutilized Positions

Job Group	Title	# of Vac	Requisition / Ext.	Int.	Promotion s/Transfers	AACU Ref. External	Position Status
Administrative B	Manager, Metering and Monitoring	1	Int.		1	0	Promo = WM
Craft A	M&O Specialist	2	Int/Ext.		2	0	Promo = (WM) (BM)
Craft A	M&O Specialist	1	Ext.		1	0	NH = WM
Craft B	HVAC Specialist	1	Ext.		1	0	NH = MW
Operators A	Area Supervisor	1	Int/Ext.		1	0	NH = WM
Para Professional	Administrative Systems Coordinator	1	Ext.		1	0	NH = HF

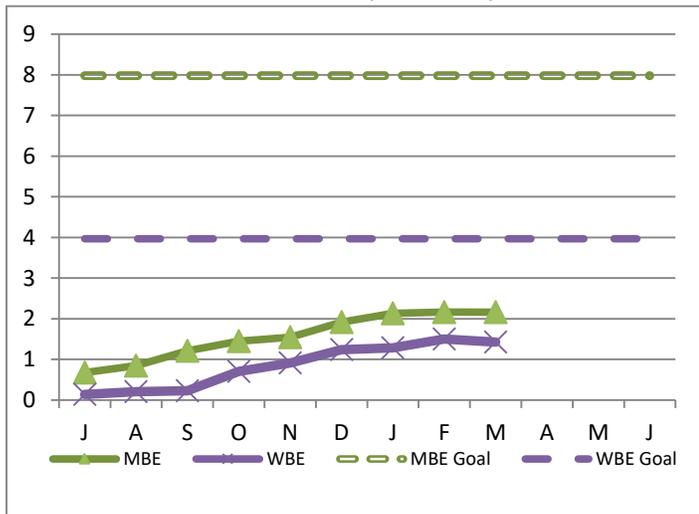
MBE/WBE Expenditures

3rd Quarter - FY20

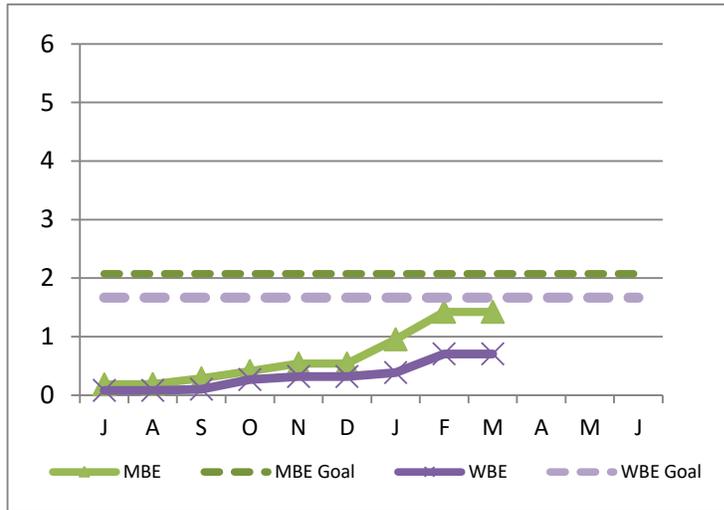
MBE/WBE targets are determined based on annual MWRA expenditure forecasts in the procurement categories noted below. The goals for FY19 are based on 85% of the total construction and 75% of the total professional projected spending for the year. Certain projects have been excluded from the goals as they have no MBE/WBE spending goals.

MBE/WBE percentages are the results from a 2002 Availability Analysis, and MassDEP's Availability Analysis. As a result of the Availability Analyses, the category of Non-Professional Services is included in Goods/Services. Consistent with contractor reporting requirements, MBE/WBE expenditure data is available through March.

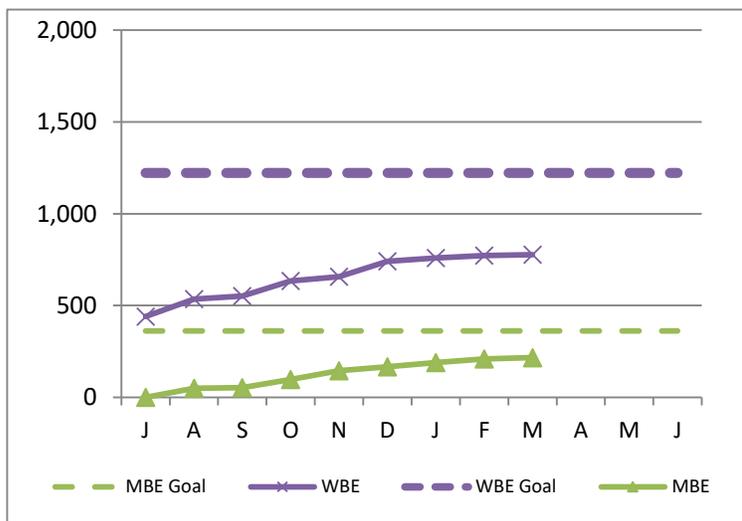
Construction (millions \$)



Professional Services (millions \$)



Goods/Services (Thousands \$)



FY20 spending and percentage of goals achieved, as well as FY19 performance are as follows:

MBE			
FY20 YTD		FY19	
Amount	Percent	Amount	Percent
2,164,222	27.1%	11,699,641	150.6%
1,423,161	68.6%	2,285,171	134.1%
216,678	59.9%	213,198	40.3%
3,804,061	36.5%	14,198,010	142.0%

WBE			
FY20 YTD		FY19	
Amount	Percent	Amount	Percent
1,524,916	38.4%	20,152,509	521.8%
704,918	42.3%	1,551,120	113.2%
777,083	63.6%	780,760	46.7%
3,006,917	43.9%	22,484,389	325.6%

Construction
Prof Svcs
Goods/Svcs
Totals

FY20 MBE/WBE dollar totals do not include MBE and WBE payments to prime contractors and consultants.

MWRA FY20 CEB Expenses 3rd Quarter - FY20

As of March 2020, total expenses are \$548.2 million, \$11.2 million or 2.0% lower than budget, and total revenue is \$596.3 million, \$2.3 million or 0.4% over budget, for a net variance of \$13.5 million.

Expenses –

Direct Expenses are \$174.2 million, \$7.1 million or 3.9% under budget.

- **Wages & Salaries** are under budget by \$2.4 million or 3.1%. Regular pay is \$2.5 million under budget, due to lower head count, and timing of backfilling positions. YTD through March, the average Full Time Equivalent (FTE) positions was 1,138, twenty fewer than the 1,158 FTE's budgeted.
- **Professional Services** expenses are \$1.1 million under budget or 18.3%, primarily due to under spending for Computer System Consultants of \$711k and \$257k underspending on Other Professional Services, including Finance and Law, partially offset by overspending of \$92k for Lab & Testing & Analysis.
- **Ongoing Maintenance** expense \$905k under budget or 3.8%, as underspending on Plant & Machine Services of \$1.5 million was partially offset by \$827k in overspending on Building and Grounds Service. Maintenance variance reflects the actual timing of projects.
- **Utilities** are \$817k under budget or 4.5% as lower electricity spending of \$1.3 million reflecting CTG usage at Deer Island during HEEC cable electrification and lower pricing. Lower interval pricing also contributing to overall electricity variance. This underspending was partially offset by overspending on diesel of \$469k for CTG operation during HEEC cable installation and fuel deliveries to replenish diesel inventory.
- **Fringe Benefit** expenses are \$507k under budget or 3.2%, primarily due to under spending for Health Insurance of \$387k, driven by lower headcount.
- **Chemical** expenses are \$417k under budget or 4.7%, primarily due to lower than budget spending on Soda Ash at Carroll Water Treatment Plant and Clinton Plant of \$236k due to lower flows and lower Activated Carbon of \$213k driven by improvements in odor control process reducing usage. This is partially offset by higher than budget spending on Sodium Bisulfite and ferric chloride which are over budget by \$93k and \$166k, respectively, due to lower flows of 4.1% and 3.0% at Deer Island and Carroll Water Treatment Plant flows, respectively, through March. Timing of deliveries is an important factor in chemical spending.
- **Worker's Compensation** expenses are \$379k under budget or 21.5%, reflecting lower compensation payments of \$257k, medical payments of \$78k, and administrative expenses of \$44k.
- **Other Materials** expenses are \$309k under budget or 7.9%, primarily due to underspending on computer hardware of \$542k in MIS partially offset by vehicle purchases of \$344k.

Indirect Expenses are \$29.9 million, \$4.0 million or 11.9% under budget driven by lower than expected Watershed Reimbursement of \$3.9 million due to lower costs associated with compensation, fringe benefits, equipment, professional services, and prior period adjustments.

Debt Service Expenses totaled \$344.2 million, right on budget, after \$8.2 million year-to-date savings was transferred to the defeasance account. The savings is the result of lower than budgeted variable interest expense of \$5.8 million and refunding savings of \$2.3 million.

Revenue and Income –

Total Revenue and Income is \$596.3 million or \$2.3 million higher than budget primarily due to a favorable variance of \$1.4 million for Other Revenue, including RPS energy revenue of \$380k due to timing, gains on disposal of equipment of \$366k, Miscellaneous Revenue \$304k, Energy Rebates of \$160k, and receipt of an unbudgeted operating grant for \$106k. Other User Charges were \$0.9 million above budget driven by Stoughton's prepayment of its remaining Entrance Fee.

	Mar 2020 Year-to-Date			
	Period 9 YTD Budget	Period 9 YTD Actual	Period 9 YTD Variance	%
EXPENSES				
WAGES AND SALARIES	\$ 79,848,366	\$ 77,403,351	\$ (2,445,015)	-3.1%
OVERTIME	3,718,447	3,556,981	(161,466)	-4.3%
FRINGE BENEFITS	15,986,808	15,479,539	(507,269)	-3.2%
WORKERS' COMPENSATION	1,765,692	1,386,467	(379,225)	-21.5%
CHEMICALS	8,825,161	8,408,565	(416,596)	-4.7%
ENERGY AND UTILITIES	18,345,365	17,527,931	(817,434)	-4.5%
MAINTENANCE	23,988,750	23,084,140	(904,610)	-3.8%
TRAINING AND MEETINGS	380,222	289,050	(91,172)	-24.0%
PROFESSIONAL SERVICES	6,198,718	5,065,775	(1,132,943)	-18.3%
OTHER MATERIALS	3,901,254	3,592,064	(309,190)	-7.9%
OTHER SERVICES	18,323,332	18,395,226	71,894	0.4%
TOTAL DIRECT EXPENSES	\$ 181,282,115	\$ 174,189,089	\$ (7,093,025)	-3.9%
INSURANCE	\$ 1,958,417	\$ 1,797,304	\$ (161,113)	-8.2%
WATERSHED/PILOT	20,125,200	16,243,507	(3,881,693)	-19.3%
HEEC PAYMENT	1,733,446	1,733,445	(1)	0.0%
MITIGATION	1,240,964	1,238,301	(2,663)	-0.2%
ADDITIONS TO RESERVES	1,570,713	1,570,713	-	0.0%
RETIREMENT FUND	7,315,000	7,315,000	-	0.0%
POST EMPLOYEE BENEFITS	-	-	-	---
TOTAL INDIRECT EXPENSES	\$ 33,943,740	\$ 29,898,270	\$ (4,045,470)	-11.9%
STATE REVOLVING FUND	\$ 67,180,982	\$ 66,944,381	\$ (236,601)	-0.4%
SENIOR DEBT	147,895,331	160,330,155	12,434,824	8.4%
DEBT SERVICE ASSISTANCE	(890,235)	(890,235)	-	0.0%
CURRENT REVENUE/CAPITAL	-	-	-	---
SUBORDINATE MWRA DEBT	127,603,121	112,885,119	(14,718,002)	-11.5%
LOCAL WATER PIPELINE CP	-	-	-	---
CAPITAL LEASE	2,412,795	2,412,795	-	0.0%
DEBT PREPAYMENT	-	-	-	---
VARIABLE DEBT	-	(5,772,109)	(5,772,109)	---
DEFEASANCE ACCOUNT	-	8,237,210	8,237,210	---
TOTAL DEBT SERVICE	\$ 344,201,994	\$ 344,147,316	\$ (54,677)	0.0%
TOTAL EXPENSES	\$ 559,427,849	\$ 548,234,675	\$ (11,193,172)	-2.0%
REVENUE & INCOME				
RATE REVENUE	\$ 571,325,250	\$ 571,325,250	\$ -	0.0%
OTHER USER CHARGES	6,693,619	7,542,540	848,921	12.7%
OTHER REVENUE	4,895,129	6,315,659	1,420,530	29.0%
RATE STABILIZATION	-	-	-	---
INVESTMENT INCOME	11,064,400	11,129,310	64,910	0.6%
TOTAL REVENUE & INCOME	\$ 593,978,398	\$ 596,312,759	\$ 2,334,360	0.4%

Cost of Debt 3rd Quarter - FY20

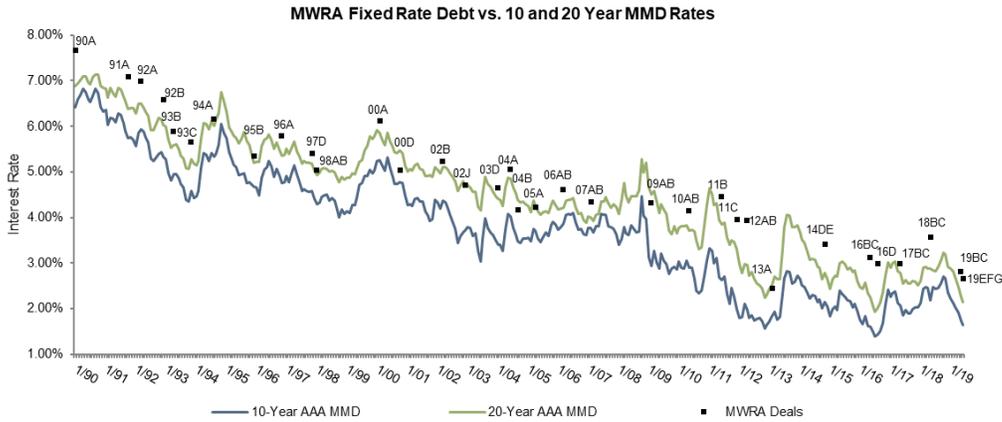
MWRA borrowing costs are a function of the fixed and variable tax exempt interest rate environment, the level of MWRA's variable interest rate exposure and the perceived creditworthiness of MWRA. Each of these factors has contributed to decreased MWRA borrowing costs since 1990.

Average Cost of MWRA Debt FYTD

Fixed Debt (\$3.49 billion)	3.47%
Variable Debt (\$354.8 million)	1.89%
SRF Debt (\$921.4 million)	1.55%
Weighted Average Debt Cost (\$4.94 billion)	2.98%

Most Recent Senior Fixed Debt Issue November 2019

2019 Series E, F & G (\$620.6 million) 2.66 %

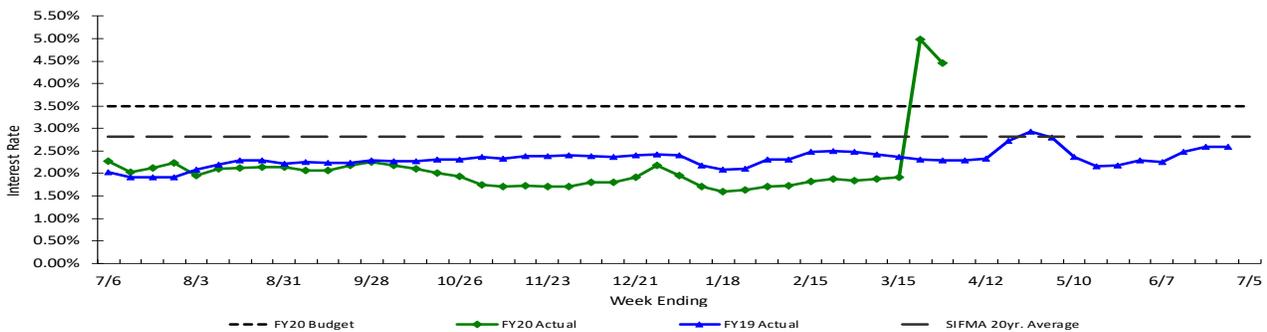


Bond Deal	1994A	1995B	1996A	1997D	1998AB	2000A	2000D	2002B	2002J	2003D	2004A	2004B	2005A	2006AB
Rate	6.15%	5.34%	5.78%	5.40%	5.04%	6.11%	5.03%	5.23%	4.71%	4.64%	5.05%	4.17%	4.22%	4.61%
Avg Life	19.5 yrs	20.5 yrs	19.5 yrs	21.6 yrs	24.4 yrs	26.3 yrs	9.8 yrs	19.9 yrs	19.6 yrs	18.4 yrs	19.6 yrs	13.5 yrs	18.4 yrs	25.9 yrs

Bond Deal	2007AB	2009AB	2010AB	2011B	2011C	2012AB	2013A	2014D-F	2016BC	2016D	2017BC	2018BC	2019BC	2019EFG
Rate	4.34%	4.32%	4.14%	4.45%	3.95%	3.93%	2.45%	3.41%	3.12%	2.99%	2.98%	3.56%	2.82%	2.66%
Avg Life	24.4 yrs	15.4 yrs	16.4 yrs	18.8 yrs	16.5 yrs	17.9 yrs	9.9 yrs	15.1 yrs	17.4 yrs	18.8yrs	11.2 yrs	11.7yrs	11.9yrs	9.73 yrs.

Weekly Average Variable Interest Rates vs. Budget

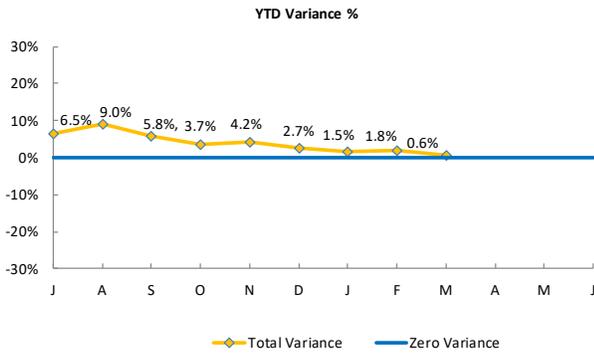
MWRA currently has ten variable rate debt issues with \$782.2 million outstanding, excluding commercial paper. Of the ten outstanding series, four have portions which have been swapped to fixed rate. Variable rate debt has been less expensive than fixed rate debt in recent years as short-term rates have remained lower than long-term rates on MWRA debt issues. In March, SIFMA rates ranged from a high of 5.20% to a low of 1.25% for the month. MWRA's issuance of variable rate debt, although consistently less expensive in recent years, results in exposure to additional interest rate risk as compared to fixed rate debt.



Investment Income

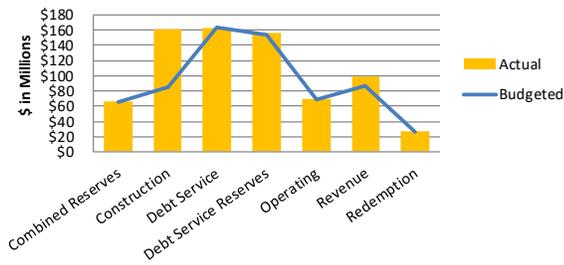
3rd Quarter - FY20

Year To Date

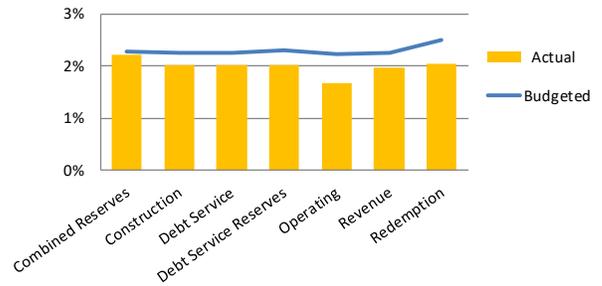


	YTD BUDGET VARIANCE			
	(\$000)			
	BALANCES IMPACT	RATES IMPACT	TOTAL	%
Combined Reserves	\$27	(\$32)	(6)	-0.5%
Construction	\$1,267	(\$284)	983	68.7%
Debt Service	(\$44)	(\$289)	(333)	-12.0%
Debt Service Reserves	\$27	(\$333)	(306)	-11.5%
Operating	\$8	(\$174)	(166)	-14.6%
Revenue	\$189	(\$205)	(17)	-1.1%
Redemption	(\$2)	(\$88)	(90)	-18.5%
Total Variance	\$1,471	(\$1,406)	\$65	0.6%

YTD Average Balances Budgeted vs. Actual

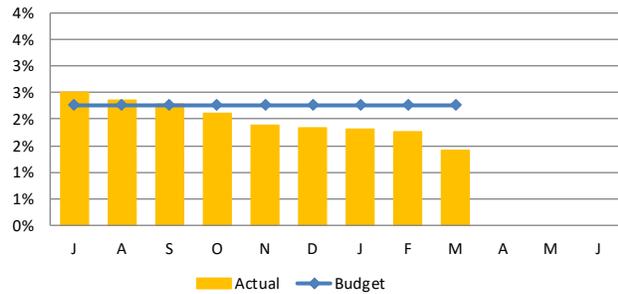


YTD Average Interest Rate Budgeted vs. Actual

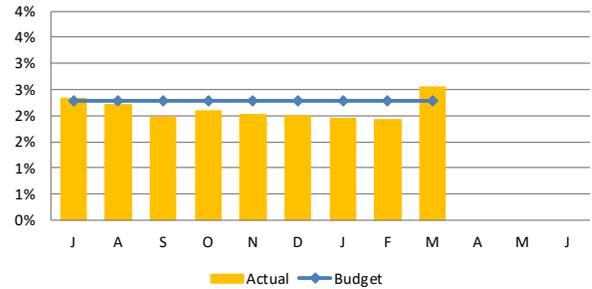


Monthly

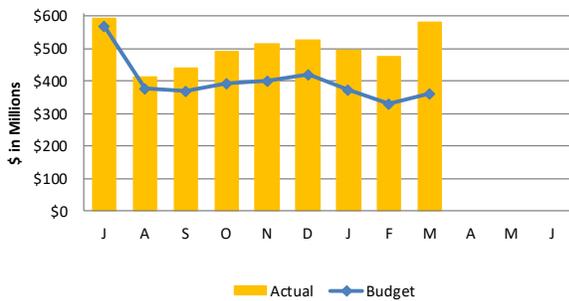
Short -Term Interest Rates



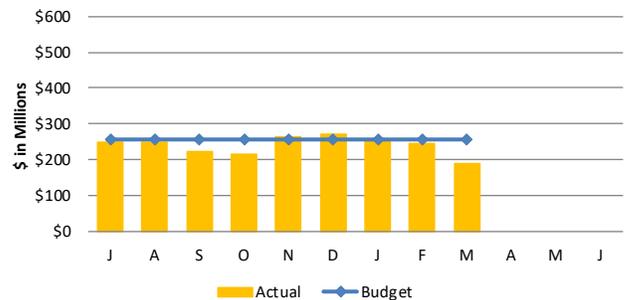
Long -Term Interest Rates



Short-Term Average Balances



Long-Term Average Balances



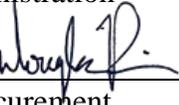
STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: May 27, 2020
SUBJECT: Delegated Authority Report – February, March, April 2020

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 – April 30, 2020.

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.

BACKGROUND:

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.

CONSTRUCTION/PROFESSIONAL SERVICES DELEGATED AUTHORITY ITEMS FEBRUARY 1 - 29, 2020

NO.	DATE OF AWARD	TITLE AND EXPLANATION	CONTRACT	AMEND/CO	COMPANY	FINANCIAL IMPACT
C-1.	02/03/20	GROUNDSKEEPING SERVICES - METROPOLITAN BOSTON AWARD OF A CONTRACT TO THE LOWEST RESPONSIVE BIDDER FOR GROUNDSKEEPING SERVICES AT 31 MWRA WATER AND WASTEWATER LOCATIONS WITHIN THE METROPOLITAN BOSTON AREA FOR A TERM OF 730 CALENDAR DAYS.	OP-408	AWARD	C & W FACILITY SERVICES, INC.	\$335,000.00
C-2.	02/14/20	NORTHERN INTERMEDIATE HIGH SECTION 110 - STONEHAM INCREASE ALLOWANCE FOR POLICE DETAIL SERVICES; REMOVE AND DISPOSE OF 30 FEET OF CONCRETE RETAINING WALL; DELAY START TIME OF WORK CREWS ON SOUTH STREET IN STONEHAM; DIRECT CONFLICT WITH CONCRETE DUCT BANK ON SOUTH STREET IN STONEHAM; FURNISH AND INSTALL ADDITIONAL WOOD BRACING AROUND THE DUCT BANK FOR SUPPORT OF EXCAVATION.	7067	11	ALBANESE D & S, INC.	\$129,494.59
C-3.	02/18/20	CHELSEA CREEK HEADWORKS UPGRADE FURNISH AND INSTALL ADDITIONAL CONDUIT AND WIRE TO PROVIDE POWER AND CONTROL FOR PROCESS EQUIPMENT AND BUILDING SYSTEMS; SAWCUT AND CHIP THE EIGHT EXISTING CONCRETE SUPPORT STRUCTURES FOR THE INCLINED SCREW CONVEYORS; TRANSPORT POLYCHLORINATED BIPHENYL (PCB) WASTE TO AN APPROVED TREATMENT, STORAGE AND DISPOSAL FACILITY; FURNISH AND INSTALL INTERIM CONTROLS FOR DUMPSTER KNIFE GATES.	7161	35	BHD/BEC 2015, A JOINT VENTURE	\$248,648.00
C-4.	02/18/20	GROUNDSKEEPING SERVICES - DEER ISLAND TREATMENT PLANT AWARD OF A CONTRACT TO THE LOWEST RESPONSIVE BIDDER FOR GROUNDSKEEPING SERVICES AT THE DEER ISLAND TREATMENT PLANT FOR A TERM OF 1,095 CALENDAR DAYS.	S586	AWARD	LEAHY LANDSCAPING, INC.	\$281,385.00

PURCHASING DELEGATED AUTHORITY ITEMS FEBRUARY 1-29, 2020

NO.	DATE OF AWARD	TITLE AND EXPLANATION	CONTRACT	AMENDMENT	COMPANY	FINANCIAL IMPACT
P-1.	02/03/20	PURCHASE OF TWO DEWATERING PUMPS AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR TWO DEWATERING PUMPS FOR THE NUT ISLAND HEADWORKS FACILITY.	WRA-4789Q		WESCOR ASSOCIATES, INC.	\$44,420.00
P-2	02/03/20	SUPPLY AND DELIVERY OF EMULSION POLYMER AWARD OF A TWO-YEAR SOLE SOURCE PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR SUPPLY AND DELIVERY OF EMULSION POLYMER AT THE PHOSPHORUS REDUCTION FACILITY AT THE CLINTON WASTEWATER TREATMENT PLANT.			ARIES CHEMICAL, INC.	\$53,522.80
P-3	02/03/20	LASER AND BELT ALIGNMENT TRAINING AND SUPPORT SERVICES AWARD OF A THREE-YEAR PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER TO PROVIDE LASER AND BELT ALIGNMENT TRAINING AND SUPPORT SERVICES.	WRA-4798		ALIGNMENT SPECIALISTS, LLC	\$76,675.00
P-4	02/13/20	PURCHASE OF SERIAL TO T1/E1 MUX CONVERTORS AND RELATED HARDWARE AWARD OF A PURCHASE ORDER UNDER STATE CONTRACT ITT57 TO THE LOWEST RESPONSIVE BIDDER FOR FOURTEEN SERIAL TO T1/E1 MUX CONVERTORS AND RELATED HARDWARE FOR THE SOUTH BOSTON CSO.	WRA-4808Q		INDUSTRIAL COMMUNICATIONS & ELECTRONICS, INC.	\$43,203.30
P-5	02/13/20	EMERGENCY RESPONSE AND PREVENTIVE MAINTENANCE FOR ENVIRONMENTAL SYSTEMS AMENDMENT NO. 1 TO PURCHASE ORDER FOR EMERGENCY RESPONSE AND PREVENTIVE MAINTENANCE FOR THE ENVIRONMENTAL SYSTEMS AT THE MIS DATA CENTER AND OPERATIONS CONTROL CENTER AT THE CHELSEA FACILITY.	WRA-4503		ELECTRONIC ENVIRONMENTS COMPANY, LLC	\$98,772.00
P-6	02/13/20	PURCHASE OF TWO NETAPP STORAGE SYSTEMS WITH THREE YEAR SUPPORT AWARD OF A PURCHASE ORDER UNDER STATE CONTRACT ITC47 - IT HARDWARE AND SERVICES TO THE LOWEST RESPONSIVE BIDDER FOR TWO NETAPP STORAGE SYSTEMS WITH THREE YEARS OF SUPPORT.	WRA-4816Q		EPLUS TECHNOLOGY, INC.	\$99,999.94
P-7	02/13/20	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-4799		UNIVAR USA, INC.	\$164,915.00
P-8	02/18/20	PURCHASE OF FIVE ROTORK VALVE ACTUATORS AWARD OF A SOLE SOURCE PURCHASE ORDER FOR FIVE ROTORK VALVE ACTUATORS FOR THE GILLIS PUMP STATION.			ATLANTIC FLUID TECHNOLOGY, INC.	\$77,010.00
P-9	02/18/20	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 AT DEER ISLAND.	WRA-4805		HOLLAND COMPANY, INC.	\$172,500.00

CONSTRUCTION/PROFESSIONAL SERVICES DELEGATED AUTHORITY ITEMS MARCH 1 - 31, 2020

NO.	DATE OF AWARD	TITLE AND EXPLANATION	CONTRACT	AMEND/CO	COMPANY	FINANCIAL IMPACT
C-1.	03/02/20	SOUTHERN EXTRA HIGH PIPELINE - SECTION 111 - DEDHAM SOUTH FURNISH AND INSTALL ADDITIONAL STEEL CASING PIPE AT THE ROUTE 95 JACKING; FURNISH AND INSTALL TEMPORARY TRAFFIC CALMING AND FURNISH AND INSTALL A FULL WIDTH OVERLAY RESTORATION OF THE AREAS.	7505	3	RJV CONSTRUCTION CORP.	\$107,256.20
C-2.	03/09/20	TOWABLE GENERATOR DOCKING STATIONS FURNISH AND INSTALL A DEDICATED WALL CABLE PASSAGE BY CORNING HOLES THROUGH EXTERIOR WALL AT EIGHT FACILITIES, INSTALL CONDUIT WALL SLEEVES, REMOVABLE ENCLOSURES AND EXTEND THE CONTRACT TERM BY 15 CALENDAR DAYS FROM APRIL 17, 2020 TO MAY 2, 2020.	7025	2	FALL RIVER ELECTRICAL ASSOCIATES CO., INC.	\$67,737.76
C-3.	03/11/20	CAPITAL IMPROVEMENTS AT THE BIOSOLIDS PROCESSING FACILITY TEMPORARILY REMOVE AND REINSTALL FOUR STEEL BEAMS.	7153	4	IPC LYDON, LLC	\$39,130.37
C-4.	03/11/20	NORTHERN INTERMEDIATE HIGH SECTION 110 - STONEHAM REMOVE, HANDLE, TRANSPORT AND DISPOSE OF ROCK AND BOULDER EXCAVATION; INCREASE FIRE DETAIL ALLOWANCE.	7067	12	ALBANESE D & S, INC.	\$97,679.10
C-5.	03/12/20	COMMONWEALTH AVENUE PUMP STATION IMPROVEMENTS INCREASE POLICE DETAIL ALLOWANCE; FURNISH AND INSTALL A 480-VOLT CIRCUIT BREAKER; REMOVE AND REPLACE INTERNAL JOINT RUBBER SEAL AND REPAIR CEMENT MORTAR LINING; PERFORM A GROUND PENETRATING RADAR SURVEY ON THE CONCRETE WALLS AND FLOOR SLABS TO LOCATE IMBEDDED UTILITIES.	7524	3	WES CONSTRUCTION CORP.	\$94,858.02

PURCHASING DELEGATED AUTHORITY ITEMS MARCH 1-31, 2020

NO.	DATE OF AWARD	TITLE AND EXPLANATION	CONTRACT	AMENDMENT	COMPANY	FINANCIAL IMPACT
P-1.	03/05/20	ANNUAL MAINTENANCE AND SUPPORT AWARD OF A SOLE SOURCE PURCHASE ORDER FOR THE ANNUAL MAINTENANCE AND SUPPORT OF INFOWATER SUITE, INFOSURGE, AND INFOWORKS SEWER LICENSE SOFTWARE.			INNOVYZE, INC.	\$40,347.00
P-2	03/09/20	PROVIDE ANALYSIS OF OIL, GREASE LUBRICANTS, AND FUEL OIL AND RELATED TRAINING AWARD OF A THREE-YEAR PURCHASE ORDER CONTRACT TO PROVIDE ANALYSIS OF OIL, GREASE LUBRICANTS, AND FUEL OIL, AND RELATED TRAINING SERVICES FOR THE DEER ISLAND TREATMENT PLANT.	WRA-4806		TRIBOLOGIK CORPORATION	\$95,610.00
P-3	03/13/20	PURCHASE OF FIFTY HEWLETT PACKARD PROBOOK LAPTOPS AWARD OF A PURCHASE ORDER UNDER STATE CONTRACT ITC47 TO THE LOWEST RESPONSIVE BIDDER FOR FIFTY HEWLETT PACKARD PROBOOK LAPTOPS.	WRA-4820Q		HUB TECHNICAL SERVICES LLC.	\$40,836.00
P-4	03/16/20	SUPPLY AND DELIVERY OF CARBON DIOXIDE AWARD OF A ONE-YEAR PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR THE SUPPLY AND DELIVERY OF CARBON DIOXIDE TO THE JOHN J. CARROLL WATER TREATMENT PLANT.	WRA-4818		MESSER LLC.	\$334,000.00
P-5	03/26/20	FUME HOOD MAINTENANCE AWARD OF A ONCE-YEAR SOLE SOURCE PURCHASE ORDER CONTRACT FOR FUME HOOD MAINTENANCE FOR THE CENTRAL LABORATORY.			SIEMENS INDUSTRY, INC.	\$27,010.00
P-6	03/31/20	PURCHASE OF TWO ROTORK HYDRAULIC PUMP ASSEMBLIES AWARD OF A SOLE SOURCE PURCHASE ORDER FOR TWO ROTORK HYDRAULIC PUMP ASSEMBLIES FOR THE DEER ISLAND TREATMENT PLANT.			ATLANTIC FLUID TECHNOLOGY, INC.	\$30,586.00

PURCHASING DELEGATED AUTHORITY ITEMS APRIL 1-30, 2020

NO.	DATE OF AWARD	TITLE AND EXPLANATION	CONTRACT	AMENDMENT	COMPANY	FINANCIAL IMPACT
P-1.	04/01/20	REPAIR OF ONE SCUM SKIMMER SYSTEM AWARD OF A PURCHASE ORDER CONTRACT FOR TO THE LOWEST RESPONSIVE BIDDER FOR REPAIR OF ONE SCUM SKIMMER SYSTEM AT THE CLINTON WASTEWATER TREATMENT PLANT.	WRA-4803		RH CONSTRUCTION	\$33,970.00
P-2	04/01/20	INVASIVE PLANT CONTROL AWARD OF A PURCHASE ORDER CONTRACT TO THE LOWEST RESPONSIVE BIDDER FOR INVASIVE PLANT CONTROL AT WARE RIVER SHAFT 8 INTAKE POOL.	WRA-4809Q		DAVEY RESOURCE GROUP, INC.	\$39,800.00
P-3	04/01/20	DIVER ASSISTED SUCTION HARVESTING OF INVASIVE AQUATIC PLANTS AWARD OF A PURCHASE ORDER CONTRACT TO THE LOWEST RESPONSIVE BIDDER FOR DIVER ASSISTED SUCTION HARVESTING OF INVASIVE AQUATIC PLANTS AT BASIN IN THE WACHUSETT RESERVOIR.	WRA-4811		AE COMMERCIAL DIVING SERVICES	\$41,600.00
P-4	04/01/20	AQUATIC INVASIVE MACROPHYTE SURVEY AWARD OF A PURCHASE ORDER CONTRACT TO THE LOWEST RESPONSIVE BIDDER FOR AN AQUATIC INVASIVE MACROPHYTE SURVEY AT MWRA/DCR RESOURCE RESERVOIRS, EMERGENCY RESERVOIRS, THE WARE RIVER AND SPOT POND.	WRA-4813		ESS GROUP, INC.	\$87,850.00
P-5	04/01/20	DISPOSE OF AND/OR RECYCLE EXCAVATED MATERIAL AWARD OF A ONCE-YEAR PURCHASE ORDER CONTRACT TO THE LOWEST RESPONSIVE BIDDER TO DISPOSE OF AND/OR RECYCLE EXCAVATED MATERIAL DURING PIPELINE CONSTRUCTION PROJECTS.	WRA-4819		NORTHGATE RECYCLING, INC.	\$90,000.00
P-6	04/03/20	PURCHASE OF 1500 QUEST CHANGE AUDITOR FOR ACTIVE DIRECTORY LICENSES AND EXCHANGE LICENSES. AWARD OF A PURCHASE ORDER UNDER STATE CONTRACT ITS58 FOR 1500 QUEST AUDITOR FOR ACTIVE DIRECTORY LICENSES AND EXCHANGE LICENSES.	WRA-4190		SHI INTERNATIONAL CORP.	\$25,050.00
P-7	04/03/20	TRANSFER SOURCE CODE CHANGES AWARD OF A SOLE SOURCE PURCHASE ORDER TO TRANSFER SOURCE CODE CHANGES TO THE PRETREATMENT INFORMATION MANAGEMENT SYSTEM FOR THE TRAC UNIT WHICH REQUIRES A PRETREATMENT INFORMATION MANAGEMENT SYSTEM TO KEEP TRACK OF CURRENT AND HISTORICAL PERMITTING, SAMPLING, INSPECTION, AND ENFORCEMENT INFORMATION.			INFLECTION POINT SOLUTIONS, LLC	\$36,198.00
P-8	04/03/20	PURCHASE OF ENVIRONMENTAL CONTROLS MONITORING SYSTEM UPGRADE AND ONE-YEAR SERVICE CONTRACT AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR ENVIRONMENTAL CONTROLS MONITORING SYSTEM UPGRADE AND ONE-YEAR SERVICE CONTRACT FOR THE DATA CENTER AND OPERATION CONTROL CENTER AT THE CHELSEA FACILITY.	WRA-4822Q		BCM CONTROLS CORPORATION	\$39,102.00
P-9	04/03/20	PURCHASE OF 17 ELECTRIC BURDEN CARRIERS AWARD OF TWO SEPARATE PURCHASE ORDERS FOR 17 ELECTRIC BURDEN CARRIERS FOR THE DEER ISLAND TREATMENT PLANT.	WRA-4817		BRODIE, INC. NORTHLAND INDUSTRIAL TRUCK COMPANY, INC.	\$96,640.00 \$64,726.06
P-10	4/3/2020	SUPPLY AND DELIVERY OF HYDROGEN SULFIDE CONTROL CHEMICALS AWARD OF A ONE-YEAR PURCHASE ORDER CONTRACT TO THE LOWEST RESPONSIVE BIDDER WITH TWO ADDITIONAL YEARS, FOR THE SUPPLY AND DELIVERY OF HYDROGEN SULFIDE CONTROL CHEMICALS.	WRA-4807		EVOQUA WATER TECHNOLOGIES, LLC	\$147,340.00
P-11	04/13/20	REPLACEMENT OF THE SCADA NETWORK SECURITY BOUNDARY DEVICES AWARD OF A SOLE SOURCE PURCHASE ORDER FOR THE REPLACEMENT OF THE SCADA NETWORK SECURITY BOUNDARY DEVICES.			AUTOMATECH, INC.	\$241,359.11
P-12	04/15/20	MAINTENANCE AND SUPPORT FOR IVANTI ENTERPRISE MANAGEMENT SUITE AWARD OF A ONE-YEAR PURCHASE ORDER UNDER STATE CONTRACT ITS58 FOR MAINTENANCE AND SUPPORT FOR IVANTI ENTERPRISE MANAGEMENT SUITE FOR THE PERIOD MAY 21, 2020 THROUGH MAY, 20, 2021.	WRA-4829Q		INSIGHT PUBLIC SECTOR, INC.	\$57,840.44
P-13	04/16/20	ANALYSIS OF CYANOBACTERIA IN RESERVOIR AND FINISHED DRINKING WATER SAMPLES AWARD OF A ONE-YEAR PURCHASE ORDER CONTRACT TO THE LOWEST RESPONSIVE BIDDER FOR ANALYSIS OF CYANOBACTERIA IN RESERVOIR AND FINISHED DRINKING WATER SAMPLES FOR THE PERIOD MAY 1, 2020 THROUGH APRIL 30, 2021.	WRA-4828Q		WECK ANALYTICAL ENVIRONMENTAL SERVICES, INC.	\$26,440.00
P-14	04/16/20	ONE-YEAR SUBSCRIPTION RENEWAL OF THE RSTUDIO SERVER PRO AND CONNECT LICENSE AWARD OF A PURCHASE ORDER UNDER STATE CONTRACT ITS58 TO THE LOWEST RESPONSIVE BIDDER FOR ONE-YEAR SUBSCRIPTION RENEWAL OF THE RSTUDIO SERVER PRO AND CONNECT LICENSE TO ALLOW ENQUAL STAFF TO PUBLISH CUSTOM-DEVELOPED REPORTS FOR THE PERIOD MAY 3, 2020 THROUGH MAY 2, 2021.	WRA-4841Q		INSIGHT PUBLIC SECTOR, INC.	\$27,574.57
P-15	04/16/20	PURCHASE OF ONE HYDRAULIC SHEARING MACHINE AWARD OF A PURCHASE ORDER TO THE LOWEST RESPONSIVE BIDDER FOR ONE HYDRAULIC SHEARING MACHINE.	WRA-4800		BALDWIN SERVICES GROUP LIMITED, INC.	\$49,490.00
P-16	04/17/20	QUALITY ASSURANCE AND QUALITY CONTROL DIVER SERVICES AWARD OF A PURCHASE ORDER CONTRACT TO THE LOWEST RESPONSIVE BIDDER FOR QUALITY ASSURANCE AND QUALITY CONTROL DIVER SERVICES FOR MWRA INVASIVE AQUATIC PLANT CONTROL CONTRACTOR AT THE WACHUSETT AND SUDBURY RESERVOIRS.				

P-17	04/27/20	SUPPLY AND DELIVERY OF CARBON DIOXIDE AMENDMENT NO. 1 TO A ONE-YEAR PURCHASE ORDER FOR THE SUPPLY AND DELIVERY OF CARBON DIOXIDE TO THE JOHN J. CARROLL WATER TREATMENT PLANT.	WRA-4818	MESSER LLC	\$83,470.00
P-18	04/30/20	PURCHASE OF ONE NEW MUFFIN MONSTER GRINDER CUTTER CARTRIDGE AND THE REBUILD OF ONE MUFFIN MONSTER GRINDER CUTTER CARTRIDGE AWARD OF A SOLE SOURCE PURCHASE ORDER FOR ONE NEW MUFFIN MONSTER GRINDER CUTTER CARTRIDGE AND THE REBUILD OF ONE MUFFIN GRINDER CUTTER CARTRIDGE FOR THE DEER ISLAND TREATMENT PLANT'S WINTHROP TERMINAL FACILITY.		JWC ENVIRONMENTAL, LLC	\$101,162.39

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: May 27, 2020
SUBJECT: FY20 Financial Update and Summary Through April 2020

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 the preliminary financial results and variance highlights for Fiscal Year 2020 through April 2020, 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 April the year-to-date debt related savings of \$9.4 million was transferred to the Defeasance Account. This favorable variance is the result of the lower than budgeted variable rates and refunding savings. Staff have already identified candidates for year-end defeasance and included the impact of the FY20 defeasance in the Final FY21 budget and planning estimates.

The total Year-to-Date variance for the FY20 CEB is \$15.7 million, due to lower direct expenses of \$9.8 million, indirect expenses of \$4.3 million, and higher revenue of \$1.6 million. The year-end favorable variance is projected at \$36.2 million, of which \$24.0 million is related to debt service. Beyond debt service savings, staff project a surplus of approximately \$12.1 million at year-end of which \$8.6 million would be from lower direct expenses, \$3.5 million from lower indirect expenses, and \$0.1 million from greater than budgeted revenues.

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

FY20 Current Expense Budget

The CEB expense variances through April 2020 by major budget category were:

- Lower Direct Expenses of \$9.8 million or 4.9% under budget. Spending was lower for Wages & Salaries, Maintenance, Utilities, Professional Services, Fringe Benefits, Other

Materials, Chemicals, Workers Compensation, Overtime, and Training and Meetings. This is partially offset by higher spending on Other Services.

- Lower Indirect Expenses of \$4.3 million or 11.4% under budget due to lower Watershed reimbursements, and lower claim spending for Insurance.

FY20 Budget and FY20 Actual Year-to-Date Variance by Expenditure Category
(in millions)

	FY20 Budget YTD	FY20 Actual YTD	\$ Variance	% Variance
Direct Expenses	\$201.5	\$191.6	-\$9.8	-4.9%
Indirect Expenses	\$37.4	\$33.1	-\$4.3	-11.4%
Capital Financing	\$381.2	\$381.2	\$0.0	0.0%
Total	\$620.1	\$606.0	-\$14.1	-2.3%

Totals may not add due to rounding

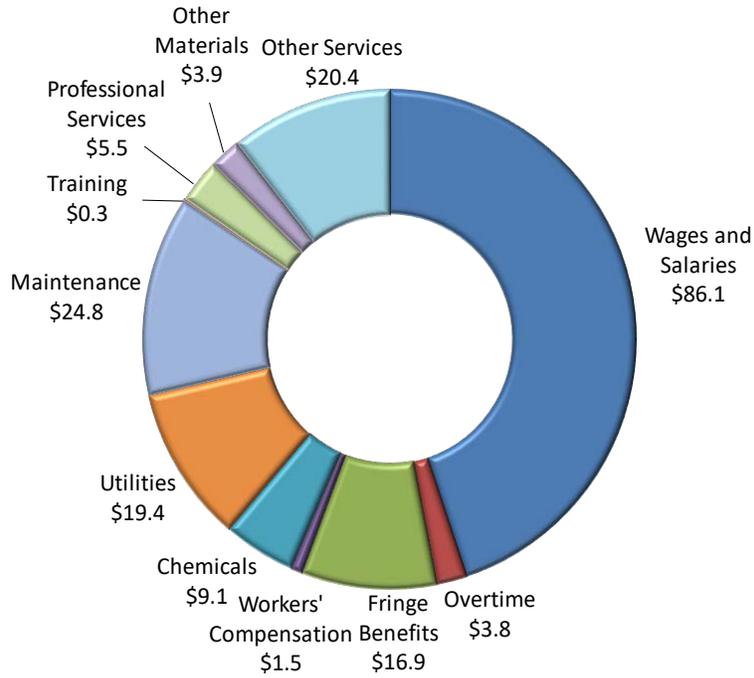
Total Revenues of \$657.3 million were \$1.6 million or 0.3 over budget. The biggest drivers of the variance are Stoughton’s \$1.1 million prepayment of their entrance fee note and favorable Other Revenue of \$1.3 million driven by income from the disposal of equipment, Energy Revenue Miscellaneous Revenue, and Energy Rebates.

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

Direct Expenses

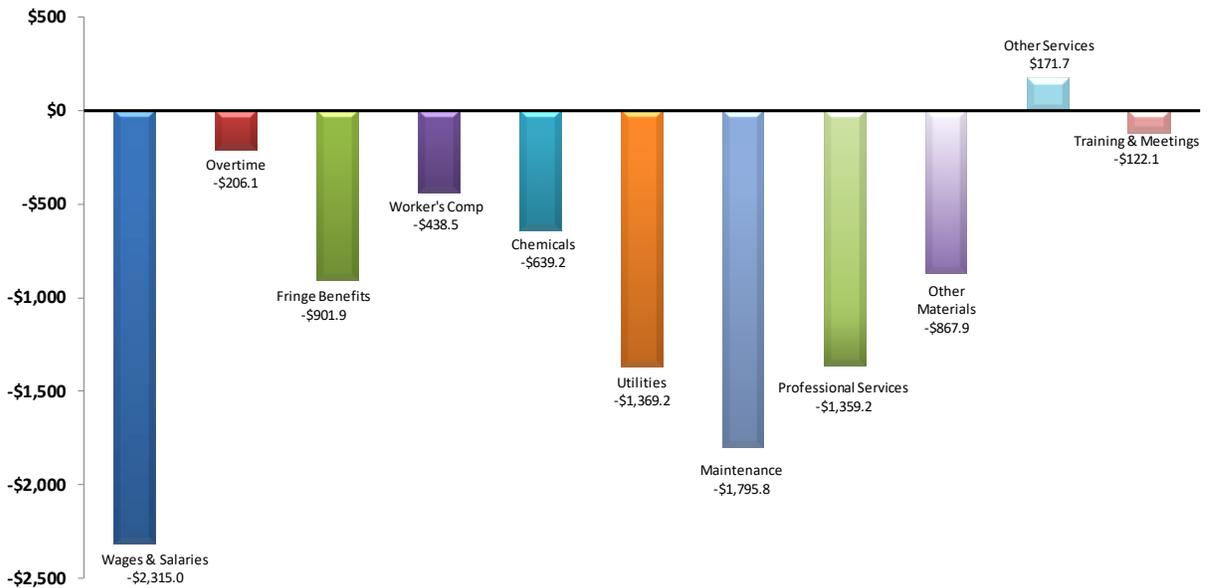
Year-to-date direct expenses totaled \$191.6 million, which was \$9.8 million or 4.9% less than budgeted.

**FY20 Year-to-Date Direct Expenses
(in millions)**



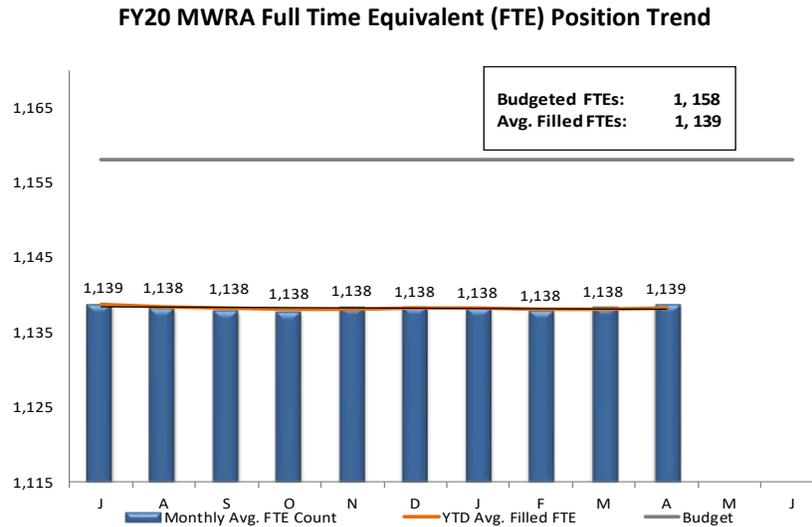
Lower than budgeted spending for Wages & Salaries, Maintenance, Utilities, Professional Services, Fringe Benefits, Other Materials, Chemicals, Worker's Compensation, Overtime, and Training & Meetings. This is partially offset by higher spending on Other Services.

**FY20 Year-to-Date Direct Expense Variance
(in thousands)**



Wages and Salaries

Wages and Salaries are under budget by \$2.3 million or 2.6%. Through April, there were 19 fewer average FTEs (1,139 versus 1,158 budget) or 1.6% and lower average salaries for new hires versus retirees. The timing of backfilling vacant positions also contributed to Regular Pay being under budget.



Maintenance

Maintenance was lower than budget by \$1.8 million or 6.7%, largely driven by the timing of projects. Maintenance Services were under budget by \$1.8 million driven by Plant and Machine Services (\$1.8 million), Pipeline Services (\$0.4 million), and Special Equipment Services (\$0.2 million). This is partially offset by higher spending for Building and Grounds Services (\$0.7 million). Maintenance Materials are higher than budget by \$19,000 driven by Plant & Machinery Materials (\$0.3 million), partially offset by lower spending on Electrical Services (\$0.2 million) and Computer Materials (\$0.1 million).

Utilities

Utilities were lower than budget by \$1.4 million or 6.6%. Underspending in Electricity of \$1.6 million is driven by DITP due to new pricing from Eversource, primarily demand charges, and real time market prices for the non-block purchases under the Direct Energy contract. In addition, lower spending in Field Operations is due to lower rates for the Interval accounts. This is partially offset by Diesel Fuel overspending of \$0.2 million driven by DITP due to timing of deliveries and replenishing the inventory used during the HEEC cable installation (the outage lasted 18 days vs. the 5 days anticipated) and additional purchases due to lower pricing, partially offset by underspending in Wastewater Operations due to lower pricing and less fuel needed than expected.

Professional Services

Professional Services were lower than budget by \$1.4 million or 19.9%. The overall underspending year-to-date is due to Computer Systems Consultant (\$0.8 million) in MIS and

Other Professional Services (\$0.3 million) in Administration, Finance and Law, and Legal Services (\$0.1 million) in Administration and Law.

Fringe Benefits

Fringe Benefit spending was lower than budget by \$0.9 million or 5.1%. This is primarily driven by lower Health Insurance costs of \$0.7 million due to fewer employees and retirees participating in health insurance plans, the change to the ratio of employee contribution for past employees versus new hires that contribute at a higher percentage, and change from family to individual plans which are less costly. In addition, Paid Family Medical Leave was under budget by \$0.1 million due to a delay in the start of plan contributions until October 1, 2019.

Other Materials

Other Materials were lower than budget by \$0.9 million or 18.3%, driven by lower than budgeted spending for Computer Hardware of \$0.4 million in MIS, \$0.2 million for Vehicle Expenses, \$0.2 million for Equipment/Furniture, and \$0.1 million for Vehicle Purchases.

Chemicals

Chemicals were lower than budget by \$0.6 million or 6.6%. Lower than budget spending on Activated Carbon of \$0.3 million driven by DITP due to improvements and continuing steps to optimize the odor control treatment process as well as timing and FOD due to lower than expected replacement cost at NITP as well as timing; Soda Ash of \$0.3 million driven by CWTP is a result of lower dosing due to high raw water alkalinity combined with lower flows; and Sodium Hypochlorite of \$0.2 million driven by Wastewater Operations due to lower contract cost. This is offset by higher than budget spending on Sodium Bisulfite of \$0.1 million driven by DITP due to increasing inventory. DITP flows are 3.0% lower than the budget and CWTP flows are 3.6% less than the budget through April. 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.

Worker's Compensation

Worker's Compensation expenses were lower than budget by \$0.4 million or 22.4%. The lower expenses were primarily due to favorable variances in compensation payments (\$337,000), medical payments (\$51,000), and administrative expenses (\$50,000).

Overtime

Overtime expenses were lower than budget by \$0.2 million or 5.1% mainly in Water Operations and Metro Maintenance by \$0.4 million, partially offset by higher spending for Deer Island (\$0.1 million) for coverage during the HEEC cable installation.

Training & Meetings

Training & Meetings expenses were lower than budget by \$0.1 million or 31.2% driven by the timing of spending as well as conferences that were postponed or cancelled.

Other Services

Other Services were higher than budget by \$0.2 million or 0.9%. Higher than budgeted spending for Sludge Pelletization of \$0.7 million is due to higher year-to-date quantities. This is partially offset by lower spending for Telecommunication Services of \$0.3 million in MIS and FOD, and Other Services of \$0.1 million for a number of services.

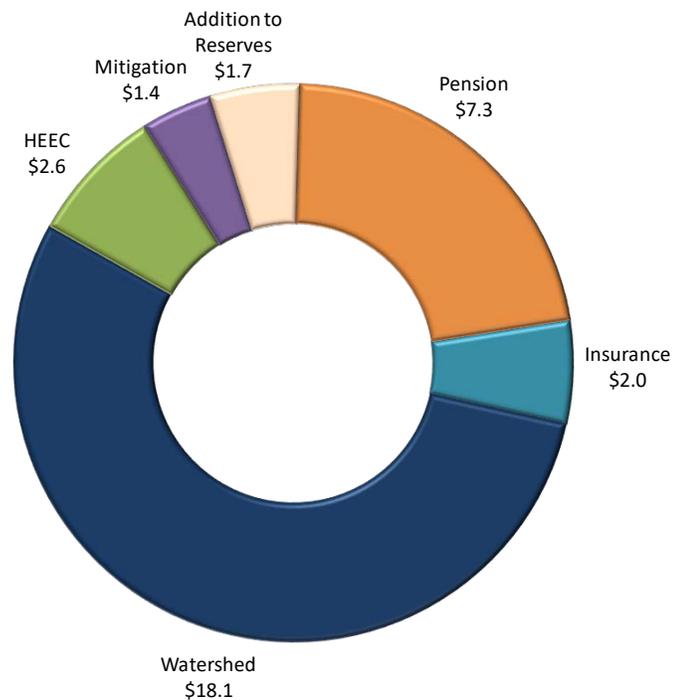
Indirect Expenses

Year-to-date Indirect Expenses totaled \$33.1 million, which is \$4.3 million or 11.4% lower than budget. There are variances within the lines that comprise Indirect Expenses, including lower Watershed Reimbursements and Insurance claims. Watershed costs are lower than budget by \$4.1 million due to lower costs associated with compensation, fringe benefits, equipment, professional services, and prior period adjustments.

MWRA reimburses the Commonwealth of Massachusetts Department of Conservation (DCR) and Recreation - Division of Water Supply Protection – Office of Watershed Management for expenses. The reimbursements are presented for payment quarterly in arrears. Accruals are being made monthly based on estimated expenses provided by DCR and true-up quarterly based on the quarterly invoice. MWRA's budget is based on the annual Fiscal Year Work Plan approved by the Massachusetts Water Supply Protection Trust.

April's estimates were not available due to the timing of the DCR's accounting calendar but will be included in the quarterly invoice expected in July. Because of that, the month of April has been accrued to budget. The FTE count at the end of April was 135 vs. a budget of 150.

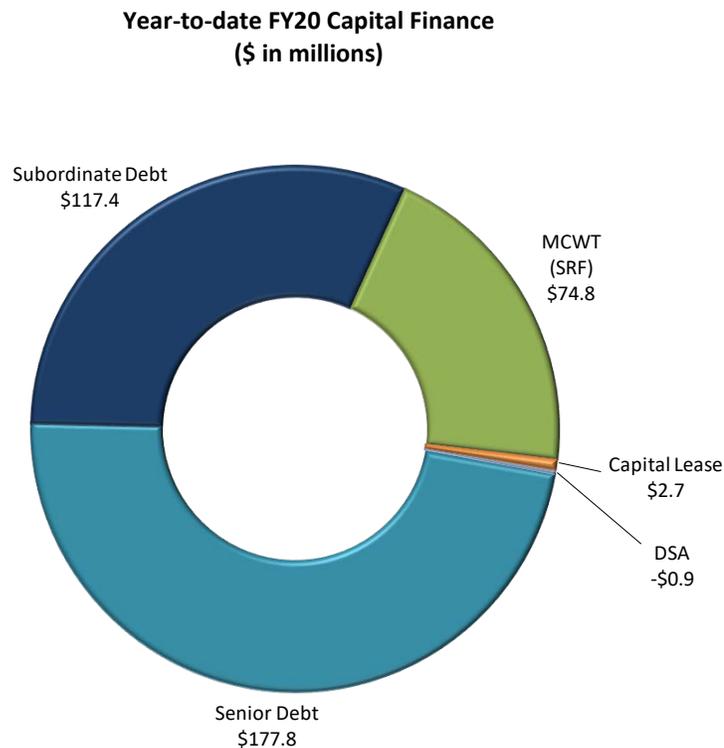
**FY20 Year-to-date Indirect Expenses-YTD
(in millions)**



Capital Financing

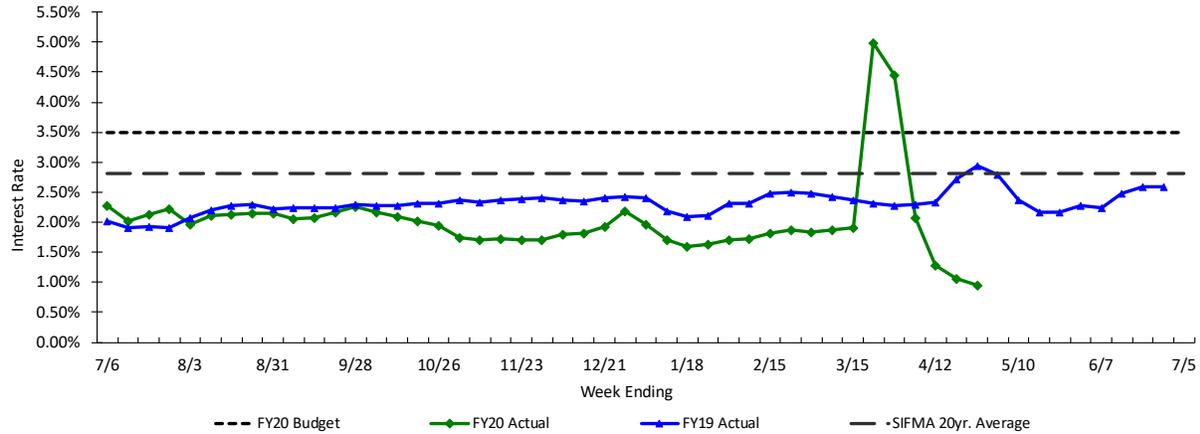
Capital Financing expenses include the principal and interest payments for fixed debt, the variable subordinate debt, the Massachusetts Clean Water Trust (SRF) obligation, the commercial paper program for the local water pipeline projects, current revenue for capital, and the Chelsea Facility lease payment.

Year-to-date Capital Financing expenses for FY20 totaled \$381.2 million, which is right on budget. In April, the year-to-date debt related savings of \$9.4 million was transferred to the Defeasance Account. This favorable variance is the result of lower than budgeted variable interest rates and refunding savings. Senior debt service is over budget by \$14.7 million as a result of the 2019 Series G refunding for savings which moved expenses from the subordinate to the senior lien. This increase is offset by a decrease of \$17.4 million to the subordinate debt service expense.



The graph below reflects the FY20 actual variable rate trend by week year-to-date against the FY20 Budget.

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



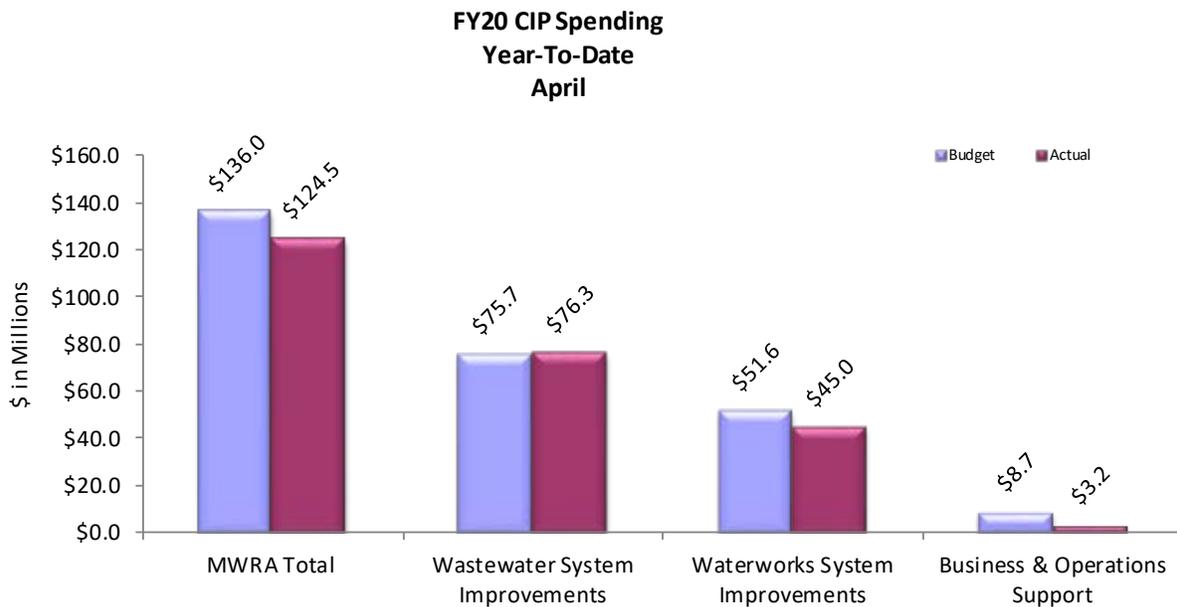
Revenue & Income

Year-to-date Revenues of \$657.3 million were over budget by \$1.6 million or 0.3%. Other User Charges were over budget by \$0.8 million or 9.5% due to Stoughton prepaying their entrance fee note. Other Revenue was favorable to budget by \$1.3 million or 25.1% due to income from the disposal of equipment (\$0.4 million), energy revenue for RPS credits (\$0.4 million), miscellaneous revenue (\$0.2 million), Energy Rebates of (\$0.2 million) and Operating Grants (\$0.1 million). Investment Income \$0.4 million or 3.6% under budget because of lower actual short-term and long-term interest rates of 1.95% vs. 2.27%.

FY20 Capital Improvement Program

Capital expenditures in Fiscal Year 2020 through April total \$124.5 million, \$11.5 million or 8.5% 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 \$89.0 million, \$21.2 million or 19.2% under budget.



Overall, CIP spending reflects the overspending in Wastewater Improvements (\$0.6 million), and underspending in Waterworks (\$6.7 million) and Business and Operations Support (\$5.5 million). Major variances in Wastewater are primarily due to timing for community requests for grants and loans for the I/I Local Financial Assistance Program and greater than anticipated progress on the Residuals Electrical/Mechanical/Drum Dryer Replacement and Chelsea Creek Headworks Upgrades Construction, and scheduled work in FY19 that was completed in FY20 for the Clinton Roofing Replacement project. This was partially offset by delay in awards for the Deer Island Primary and Secondary Clarifier Construction, Nut Island Odor Control HVAC Improvements and Dorchester Interceptor Sewer Construction contracts, updated schedule for the Dorchester I/I Removal, vibration issue with the Winthrop Terminal Facility VFD contract, and schedule change for Sections 191 and 192 Rehabilitation.

Waterworks variances are primarily due to timing of community loan requests, paving delays for the Southern Extra High Section 111 Phase 2 Construction, less than anticipated consultant progress due to scope change on Section 50/57 Water and Sections 21/20/19 Sewer Design CA/RI, and updated schedules for CP-3 Sections 23, 24 and 47 Rehabilitation, CP-1 Shafts 6, 8, and 9A, and Carroll Water Treatment Plant Ancillary Modifications contracts. This was partially offset by contractor progress on the Southern Extra High Section 111 Construction 3, timing of final work

for the Wachusett Aqueduct Pumping Station Design, and work scheduled in FY19 that was completed in FY20 for the Bellevue 2 & Turkey Hill Tanks Painting and Cosgrove Intake Roof Replacements.

FY20 Budget and FY20 Actual Year-to-Date Variance by Program
(in millions)

\$ in Millions	Budget	Actuals	\$ Var.	% Var.
Wastewater System Improvements				
Interception & Pumping	32.0	24.2	(7.8)	-24.4%
Treatment	18.4	10.3	(8.1)	-43.8%
Residuals	6.3	10.1	3.8	61.2%
CSO	2.2	1.0	(1.2)	-53.6%
Other	16.8	30.7	13.9	82.5%
Total Wastewater System Improvements	\$75.7	\$76.3	\$0.6	0.8%
Waterworks System Improvements				
Drinking Water Quality Improvements	2.1	1.3	(0.8)	-36.4%
Transmission	12.6	11.1	(1.5)	-11.7%
Distribution & Pumping	24.9	22.5	(2.4)	-9.5%
Other	12.0	10.0	(2.1)	-17.4%
Total Waterworks System Improvements	\$51.6	\$45.0	(\$6.7)	-12.9%
Business & Operations Support	\$8.7	\$3.2	(\$5.5)	-63.3%
Total MWRA	\$136.0	\$124.5	(\$11.5)	-8.5%

Totals may not add due to rounding

FY20 Year-to-date Spending by Program:

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

Other Wastewater: Net overspending of \$13.9 million

- \$13.9 million for Community I/I due to timing of community requests for grants and loans.

Wastewater Treatment: Net underspending of \$8.1 million

- \$4.0 million for Deer Island Clarifier Rehabilitation Phase 2 Construction due to delay in contract award.
- \$1.0 million for Winthrop Terminal Facility VFD and Motors Replacements due to vibration issue with VFD No. 5.
- \$0.7 million for Clinton Valves and Pipe Replacement due to project being re-scoped.
- \$0.4 million for Combined Heat and Power Energy Alternatives Study, \$0.4 million for Gravity Thickener Rehabilitation, \$0.3 million for Digester Tank Rehab and Pipe Replacement, and \$0.3 million for Motor Control Center Switchgear Replacement/ESDC due to timing of work.
- \$0.4 million for less than anticipated as-needed task order work.
- \$0.3 million for HVAC Equipment Replacement Design due to project being re-scoped.
- \$0.3 million for Radio Repeater Upgrade 2, \$0.2 million for South System Pump Station VFD Replacement Design, and \$0.2 million for Eastern Seawall Design due to schedule changes.

- This underspending was partially offset by overspending of \$0.5 million for Clinton Roofing Rehabilitation due to work scheduled in FY19 that was completed in FY20.

Interception & Pumping: Net underspending of \$7.8 million

- \$4.1 million for Nut Island Odor Control HVAC Improvements Design/CA/RI and Construction and \$2.3 million for Dorchester Interceptor Sewer Design and Construction due to delay in construction awards.
- \$0.5 million for Sections 191 and 192 Rehabilitation due to delay in the contract notice-to-proceed.
- \$0.3 million for Wastewater Metering Planning/Study for less than anticipated spending including police details, and \$0.2 million for Wastewater Central Monitoring Design.
- \$0.3 million for Prison Point Design/ESDC/REI due to delay in 100% Design Report review.
- \$0.2 million for Fuel Oil Tank Replacement design due to delay of contract award.
- \$0.2 million for Remote Headworks and Deer Island Shaft Study due to contract time extension.
- \$0.2 million for Hayes Pump Station Rehab Design due to revised schedule.
- This underspending was partially offset by overspending of \$1.0 million for Chelsea Creek Headworks Upgrades construction due to greater than anticipated contractor progress.

Business & Operations Support: Net underspending of \$5.5 million

- \$3.8 million for the timing and scheduling of MIS work, \$0.9 million for As-Needed Technical Assistance and Resident Engineering and Inspection Services due to lower than projected task order work, and \$0.5 million for Security Equipment & Installation due to timing of security initiatives.

Residuals: Net overspending of \$3.8 million

- \$3.1 million for Electrical, Mechanical, and Dryer Drum Improvements due to greater than anticipated contractor progress and engineering costs and \$0.7 million for Pellet Conveyance Piping Relocation due to contractor progress.

Water Distribution and Pumping: Net underspending of \$2.4 million

- \$1.2 million for Southern Extra High Service Section 111 Phase 2 due to paving delays
- \$1.0 million for Sections 50, 57 Water and Sections 21, 20, 19 Sewer due to reduced scope and consultants scheduled tasks being less than anticipated.
- \$1.0 million for CP-3 Section 23, 24, and 47 Rehabilitation due to schedule change.
- \$0.4 million for NIH Section 89 and 29 Design/CA/RI due to less than anticipated contract administration/resident inspection budgeted spending.
- \$0.3 million for Sections 25, 75, 59, and 60 Design due to boring program delayed pending receipt of base maps.
- \$0.2 million for Cathodic Protection Metro West Tunnel Shaft E & L for final work scheduled for FY20 that was completed in FY19.
- \$0.2 million for Section 53 and 99 Connections Design due to delay in contract award.
- This underspending was partially offset by overspending of \$1.9 million for Southern Extra High Section 111 Construction 3 due to contractor progress, and \$0.1 million for Section 56 Replacement/Saugus Design/CA for timing of consultant work.

Other Waterworks: Net underspending of \$2.1 million

- \$2.9 million for the Local Water System Assistance Program due to timing of community loan requests.
- \$0.2 million Steel Water Tanks Design due to updated schedule.
- \$0.2 million for DI Water Tank Painting due to credit change order.
- This underspending was partially offset by overspending of \$0.6 million Bellevue 2/Turkey Hill Water Tank Painting and Improvements, \$0.5 million for Cosgrove Intake Roof Replacement due to work scheduled in FY19 that was completed in FY20, and \$0.2 million for Carroll Water Treatment Plant SCADA Design due to consultant progress..

Waterworks Transmission: Net underspending of \$1.5 million

- \$0.6 million for CP-1 Shafts 6, 8, and 9A due to schedule change and re-bid of contract.
- \$0.4 million for Wachusett Aqueduct Sluice Gates and \$0.3 million for Wachusett Lower Gate House Pipe Replacement and \$0.2 million for Waltham Water Pipeline Design due to schedule changes.
- \$0.4 million for Commonwealth Avenue Pumping Station Construction due to contractor behind schedule on WASM work and \$0.4 million for WASM 3 MEPA/Design/CA/RI due to consultant progress being less than anticipated.
- \$0.2 million for Chestnut Hill Emergency Pumping Station Design/CA due to longer than anticipated receipt of hydraulic information.
- This underspending was partially offset by overspending of \$0.6 million for Wachusett Aqueduct Pumping Station due to timing of final work, \$0.3 million for Watershed Land Acquisition due to timing of land purchases and \$0.1 million for Metropolitan Tunnel Redundancy Program Support Services due to greater than anticipated consultant progress.

Combined Sewer Overflow: Net underspending of \$1.2 million

- \$1.3 million for Dorchester Inflow Removal Construction due to updated schedule partially offset by \$0.2 million for CSO Performance Assessment due to greater than anticipated consultant progress.

Drinking Water Quality Improvements: Net underspending of \$0.8 million

- \$0.6 for Ancillary Modifications Construction work and \$0.2 million for CP-7 Existing Facilities Construction due to updated schedules and \$0.2 million due to timing of task order work.
- This underspending was partially offset by overspending of \$0.1 million for Carroll Water Treatment Plant HVAC Equipment Replacement due to greater than anticipated contractor progress.

Construction Fund Balance

The construction fund balance was \$110.3 million as of the end of April. Commercial Paper/Revolving Loan available capacity was \$222 million.

ATTACHMENTS:

Attachment 1 – Variance Summary April 2020

Attachment 2 – Current Expense Variance Explanations

Attachment 3 – Capital Improvement Program Variance Explanations

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

ATTACHMENT 1
FY20 Actuals vs. FY20 Budget

	Apr 2020 Year-to-Date				
	Period 10 YTD Budget	Period 10 YTD Actual	Period 10 YTD Variance	%	FY20 Approved
EXPENSES					
WAGES AND SALARIES	\$ 88,385,441	\$ 86,070,479	\$ (2,314,962)	-2.6%	\$ 109,953,483
OVERTIME	4,047,516	3,841,396	(206,120)	-5.1%	4,898,965
FRINGE BENEFITS	17,834,212	16,932,299	(901,913)	-5.1%	21,717,533
WORKERS' COMPENSATION	1,961,880	1,523,365	(438,515)	-22.4%	2,354,256
CHEMICALS	9,695,411	9,056,210	(639,201)	-6.6%	11,811,222
ENERGY AND UTILITIES	20,731,674	19,362,449	(1,369,225)	-6.6%	24,454,796
MAINTENANCE	26,628,460	24,832,628	(1,795,832)	-6.7%	32,726,954
TRAINING AND MEETINGS	390,973	268,890	(122,083)	-31.2%	504,394
PROFESSIONAL SERVICES	6,837,379	5,478,132	(1,359,247)	-19.9%	8,295,315
OTHER MATERIALS	4,741,952	3,874,022	(867,930)	-18.3%	6,867,239
OTHER SERVICES	20,208,814	20,380,519	171,705	0.8%	24,683,370
TOTAL DIRECT EXPENSES	\$ 201,463,712	\$ 191,620,389	\$ (9,843,323)	-4.9%	\$ 248,267,527
INSURANCE	\$ 2,159,279	\$ 1,982,101	\$ (177,178)	-8.2%	\$ 2,611,222
WATERSHED/PILOT	22,189,323	18,119,084	(4,070,239)	-18.3%	26,833,600
HEEC PAYMENT	2,632,069	2,632,068	(1)	0.0%	4,429,316
MITIGATION	1,368,242	1,365,306	(2,936)	-0.2%	1,654,618
ADDITIONS TO RESERVES	1,731,812	1,731,812	-	0.0%	2,094,284
RETIREMENT FUND	7,315,000	7,315,000	-	0.0%	7,315,000
POST EMPLOYEE BENEFITS	-	-	-	---	5,962,457
TOTAL INDIRECT EXPENSES	\$ 37,395,725	\$ 33,145,371	\$ (4,250,354)	-11.4%	\$ 50,900,497
STATE REVOLVING FUND	\$ 75,062,924	\$ 74,783,305	\$ (279,619)	-0.4%	\$ 92,797,294
SENIOR DEBT	163,064,083	177,773,004	14,708,921	9.0%	202,299,609
DEBT SERVICE ASSISTANCE	(890,235)	(890,235)	-	0.0%	(890,235)
CURRENT REVENUE/CAPITAL	-	-	-	---	15,200,000
SUBORDINATE MWRA DEBT	141,308,599	123,914,597	(17,394,002)	-12.3%	169,609,845
LOCAL WATER PIPELINE CP	-	-	-	---	5,846,823
CAPITAL LEASE	2,660,261	2,660,261	-	0.0%	3,217,060
DEBT PREPAYMENT	-	-	-	---	-
VARIABLE DEBT	-	(6,467,370)	(6,467,370)	---	-
DEFEASANCE ACCOUNT	-	9,432,069	9,432,069	---	5,000,000
TOTAL DEBT SERVICE	\$ 381,205,632	\$ 381,205,632	\$ -	0.0%	\$ 493,080,396
TOTAL EXPENSES	\$ 620,065,069	\$ 605,971,392	\$ (14,093,678)	-2.3%	\$ 792,248,420
REVENUE & INCOME					
RATE REVENUE	\$ 629,922,711	\$ 629,922,711	\$ -	0.0%	\$ 761,767,000
OTHER USER CHARGES	8,286,048	9,075,759	789,711	9.5%	9,216,425
OTHER REVENUE	5,200,150	6,505,945	1,305,795	25.1%	5,761,022
RATE STABILIZATION	-	-	-	---	-
INVESTMENT INCOME	12,272,971	11,825,600	(447,371)	-3.6%	15,503,973
TOTAL REVENUE & INCOME	\$ 655,681,880	\$ 657,330,016	\$ 1,648,136	0.3%	\$ 792,248,420

ATTACHMENT 2
Current Expense Variance Explanations

Total MWRA	FY20 Budget YTD April	FY20 Actuals April	FY20 YTD Actual vs. FY20 Budget		Explanations
			\$	%	
Direct Expenses					
Wages & Salaries	88,385,441	86,070,479	(2,314,962)	-2.6%	Wages and Salaries are under budget by \$2.3 million. Year to date, there have been 19 fewer average FTEs (1,139 versus 1,158 budget), lower average new hire salaries versus retirees, the timing of backfilling vacant positions.
Overtime	4,047,516	3,841,396	(206,120)	-5.1%	Lower spending mainly in Water Operations and Metro Maintenance of (\$0.4 million) offset by higher spending for Deer Island (\$0.1 million) for coverage during the HECC cable installation.
Fringe Benefits	17,834,212	16,932,299	(901,913)	-5.1%	Lower than budget in Health Insurance of \$712,000, 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, PFML was under budget by \$57,000 due to a delay in the start of plan contributions until 10/1/19.
Worker's Compensation	1,961,880	1,523,365	(438,515)	-22.4%	The lower expenses were due to favorable variances in Compensation Payments of \$337,000, Medical Payments of \$51,000, and Administrative Expenses of \$50,000. Due to uncertainties of when spending will happen, the budget is spread evenly throughout the year.
Chemicals	9,695,411	9,056,210	(639,201)	-6.6%	Lower than budget spending on Activated Carbon of \$299,000 driven by DITP (\$241,000) due to improvements and continuing steps to optimize the odor control treatment process as well as timing and FOD (\$58,000) due to lower than expected replacement cost at NITP as well as timing and delay replacing the chemical at DeLauri due to the pandemic; Soda Ash of \$260,000 driven by CWTP is a result of lower dosing due to high raw water alkalinity combined with lower flows; and Sodium Hypochlorite of \$176,000 driven by Wastewater Operations mainly due to price. This is offset by higher than budget spending on Sodium Bisulfite of \$68,000 driven by DITP (\$90,000) due to increasing inventory. DITP flows are 3.0% lower than the budget and CWTP flows are 3.6% less than the budget through April. 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	20,731,674	19,362,449	(1,369,225)	-6.6%	Underspending in Electricity of \$1.6 million primarily at DITP (\$1.0 million) driven by new pricing from Eversource, primarily demand charges, and real time market prices for the non-block purchases under the Direct Energy contract. Also, Field Operations (\$447,000) is under budget primarily due to lower rates for Interval accounts. Diesel Fuel is overspent by \$178,000 driven by DITP (\$490,000) due to timing of deliveries and replenishing the inventory used during the HECC cable installation (the outage lasted 18 days vs. the 5 days anticipated) and additional purchases due to lower pricing, partially offset by underspending in Wastewater Operations of (\$303,000) due to lower pricing and less fuel needed than expected.

**ATTACHMENT 2
Current Expense Variance Explanations**

Total MWRA	FY20 Budget YTD April	FY20 Actuals April	FY20 YTD Actual vs. FY20 Budget		Explanations
			\$	%	
Maintenance	26,628,460	24,832,628	(1,795,832)	-6.7%	Underspending in Ongoing Maintenance by \$1.8 million is largely driven by the timing of projects. <i>Maintenance Services</i> are under budget by \$1.8 million driven by Plant and Machine Services (\$1.8 million), Pipe Services (\$0.4 million), Social Equipment Services (\$0.2 million), and overspending in Building and Grounds Services by (\$0.7 million). This is offset by <i>Maintenance Materials</i> which are over budget by \$19,000, driven by Plant and Machine Materials (\$0.3 million), partially offset by lower spending on Electrical Services (\$0.2 million) and Computer Materials (\$0.1 million).
Training & Meetings	390,973	268,890	(122,083)	-31.2%	Lower than budget spending on Training & Meetings by \$122,000 is driven by MIS (\$40,000), Tunnel Redundancy (\$31,000), Field Operations (\$27,000), Deer Island (\$13,000), and Emergency Preparedness (\$11,000).
Professional Services	6,837,379	5,478,132	(1,359,247)	-19.9%	Lower than budget spending in Computer Systems Consultant of \$772,000 in MIS; Other Professional Services of \$348,000 in Administration, Finance, and Law; and Legal Services of \$136,000 in Administration and Law.
Other Materials	4,741,952	3,874,022	(867,930)	-18.3%	Driven by lower than budgeted spending for Computer Hardware of \$421,000 in MIS primarily due to timing and \$228,000 for Vehicle Expenses , \$162,000 for Equipment/Furniture , and \$129,000 for Vehicle Purchases .
Other Services	20,208,814	20,380,519	171,705	0.8%	Higher than budgeted spending for Sludge Pelletization of \$659,000 due to higher year-to-date quantities, offset by lower spending for Telecommunication Services of 298,000 in MIS and FOD, Police Details of \$120,000 and Other Services of \$64,000 for a number of services.
Total Direct Expenses	201,463,712	191,620,389	(9,843,323)	-4.9%	

**ATTACHMENT 2
Current Expense Variance Explanations**

Total MWRA	FY20 Budget YTD April	FY20 Actuals April	FY20 YTD Actual vs. FY20 Budget		Explanations
			\$	%	
Indirect Expenses					
Insurance	2,159,279	1,982,101	(177,178)	-8.2%	Lower claims than budgeted of \$171,000.
Watershed/PILOT	22,189,323	18,119,084	(4,070,239)	-18.3%	Lower Watershed Reimbursement of \$4.1 million due to an over accrual at end of FY19 as compared to actual amount paid in first quarter of FY20. April FY20 YTD favorable variance to budget estimated to be \$3.0 million driven by (1) lower Fringe Benefits, (2) lower Wages & Salaries, (3) lower spending on Equipment, and (4) lower spending on Professional Services.
HEEC Payment	2,632,069	2,632,068	(1)	0.0%	
Mitigation	1,368,242	1,365,306	(2,936)	-0.2%	
Addition to Reserves	1,731,812	1,731,812	-	0.0%	
Pension Expense	7,315,000	7,315,000	-	0.0%	
Post Employee Benefits	-	-	-		
Total Indirect Expenses	37,395,725	33,145,371	(4,250,354)	-11.4%	
Debt Service					
Debt Service	382,095,867	382,095,867	-	0.0%	Senior debt service is over budget by \$14.7 million as a result of the 2019 Series G refunding for savings which moved debt service expense from the subordinate to the senior lien. This increase is offset by a corresponding decrease of \$17.4 million to the subordinate debt service expense.
Debt Service Assistance	(890,235)	(890,235)	-	0.0%	
Total Debt Service Expenses	381,205,632	381,205,632	-	0.0%	
Total Expenses	620,065,069	605,971,392	(14,093,677)	-2.3%	

**ATTACHMENT 2
Current Expense Variance Explanations**

Total MWRA	FY20 Budget YTD April	FY20 Actuals April	FY20 YTD Actual vs. FY20 Budget		Explanations
			\$	%	
Revenue & Income					
Rate Revenue	629,922,711	629,922,712	1	0.0%	
Other User Charges	8,286,048	9,075,759	789,711	9.5%	\$1.1 million prepayment of entrance fee note by Stoughton.
Other Revenue	5,200,150	6,505,945	1,305,795	25.1%	Disposal of surplus materials of \$366,000; Energy Revenue for RPS credit of \$362,000; Miscellaneous Revenue of \$203,000 primarily associated with worker's compensation reimbursement for older claims; \$160,000 for Energy Rebates; and \$107,000 in grant money (Commonwealth Operating Grant for \$44,000 and DCR Aqueduct Trails Grant for \$62,000).
Investment Income	12,272,971	11,825,600	(447,371)	-3.6%	Investment Income is under budget due to lower than budgeted interest rates (1.95% actual vs. 2.27% budget) somewhat offset by higher than anticipated balances.
Total Revenue	655,681,880	657,330,016	1,648,136	0.3%	
Net Revenue in Excess of Expenses	35,616,811	51,358,624	15,741,813		

**ATTACHMENT 3
FY20 CIP Year-to-Date Variance Report (\$000's)**

	FY20 Budget YTD April	FY20 Actuals YTD April	YTD Actuals vs. Budget		Explanations
			\$	%	
Wastewater					
Interception & Pumping (I&P)	\$31,991	\$24,189	(\$7,803)	-24.4%	<u>Underspending</u> Nut Island Odor Control & HVAC Improvements - Design/CA/REI and Construction: \$4.1M, and Interceptor Renewal No. 3, Dorchester Interceptor Sewer - Design, CA/RI and Construction: \$2.3M (delay in construction awards) Sections 191 & 192 Rehabilitation: \$500k (delay in the contract notice-to-proceed) Chelsea Creek Headworks Upgrades - REI: \$303k (less than budgeted resident engineering and inspection services) Wastewater Meter System Planning/Study/Design: \$295k, and Wastewater Central Monitoring Design & Programming Services: \$234k (less than anticipated budgeted work) Prison Point Rehabilitation - Design/CA/RI: \$292k (delay in 100% Design Report review) Remote Headworks and Deer Island Shaft Study: \$202k (contract time extension) Fuel Oil Tank Replacement Construction Phase 1: \$227k, Siphon Structure Rehabilitation Design/CS/RI: \$174k, and Hayes Pump Station Rehabilitation Design: \$150k (schedule shifts) <u>Offset Overspending</u> Chelsea Creek Headworks Upgrades - Construction: \$1.0M (contractor progress)
Treatment	\$18,403	\$10,337	(\$8,066)	-43.8%	<u>Underspending</u> Clarifier Rehab Phase 2 - Construction and REI: \$4.1M, Radio Repeater System Upgrade Phase 2: \$333k, South System Pump Station VFD Replacement Design/ESDC/REI, \$225k, and Eastern Seawall - Design/ESDC/REI: \$187k (schedule shifts) Winthrop Terminal Facility VFD and Motors Replacements: \$959k (vibration issue with VFD No. 5) Combined Heat and Power Energy Alternatives Study: \$390k, Gravity Thickener Rehab: \$366k, Digester Tank Rehab and Pipe Replacement: \$344k, and Motor Control Center Switchgear Replacement/ESDC/REI \$338k (timing of work) Clinton Valves and Pipe Replacement: \$667k, and Deer Island HVAC - Design/ESDC: \$279k (projects being re-scoped) As-Needed Design: \$444k (less than anticipated task order work) Expansion Joint Repair - Construction 3: \$114k (contract defunded with scope of work incorporated into Clarifier Rehabilitation Phase 2 Construction contract) <u>Offset Overspending</u> Clinton Roofing Rehabilitation: \$523k (work scheduled for FY19 performed in FY20) Gas Protection System Replacement - Phase 1: \$253k (pre-purchase of equipment)

**ATTACHMENT 3
FY20 CIP Year-to-Date Variance Report (\$000's)**

	FY20 Budget YTD April	FY20 Actuals YTD April	YTD Actuals vs. Budget		Explanations
			\$	%	
Residuals	\$6,262	\$10,093	\$3,831	61.2%	<u>Overspending</u> Residuals Electrical/Mechanical/Drum Replacements: \$3.1M (contractor progress and greater than anticipated engineering costs) Pellet Conveyance Relocation: \$666k (contractor progress)
CSO	\$2,230	\$1,035	(\$1,195)	-53.6%	<u>Underspending</u> Dorchester Inflow Removal Construction: \$1.3M (updated schedule) <u>Offset Overspending</u> CSO Performance Assessment: \$155K (greater than anticipated consultant progress)
Other Wastewater	\$16,818	\$30,693	\$13,875	82.5%	<u>Overspending</u> I/I Local Financial Assistance: \$13.9M (timing of community requests for grants and loans)
Total Wastewater	\$75,704	\$76,347	\$643	0.8%	

**ATTACHMENT 3
FY20 CIP Year-to-Date Variance Report (\$000's)**

	FY20 Budget YTD April	FY20 Actuals YTD April	YTD Actuals vs. Budget		Explanations
			\$	%	
Waterworks					
Drinking Water Quality Improvements	\$2,086	\$1,326	(\$760)	-36.4%	<u>Underspending</u> Carroll Water Treatment Plant Ancillary Modifications - Construction: \$623k, and Existing Facilities Modifications - CP7: \$207k (updated schedules) Technical Assistance 9 & 10: \$185k (timing of task order work) <u>Offset Overspending</u> HVAC Equipment Replacement and Emergency Generator No. 1 Replacement contracts: \$163k (contractor progress)
Transmission	\$12,602	\$11,132	(\$1,470)	-11.7%	<u>Underspending</u> CP-1 Shafts 6, 8, and 9A: \$646k, Weston Aqueduct Sluice Gates - Construction: \$410k, Wachusett Lower Gatehouse Pipe Replacement - Construction: \$267k, Waltham Water Pipeline Design/CA: \$214k, and Maintenance Garage/Wash Bay/Storage Building Design/CA/RI: \$108k (schedule shifts) Commonwealth Ave Pumping Station Improvements Construction: \$376k (contractor behind schedule on WASM work) WASM 3 - MEPA/Design/CA/RI: \$372k (progress less than anticipated) Chestnut Hill Emergency Pump Station - Design/CA: \$166k (longer than anticipated receipt of hydraulic information) <u>Offset Overspending</u> Wachusett Aqueduct Pump Station - Design/ESDC/RI: \$581k (timing of final ESDC and RI services) Watershed Land Acquisition: \$259k (timing of land purchases) Commonwealth Avenue Pump Station Redundancy - Design/CA/RI: \$208k (timing of consultant work) Program Support Services: \$113k (consultant progress)

**ATTACHMENT 3
FY20 CIP Year-to-Date Variance Report (\$000's)**

	FY20 Budget YTD April	FY20 Actuals YTD April	YTD Actuals vs. Budget		Explanations
			\$	%	
Distribution & Pumping	\$24,903	\$22,548	(\$2,355)	-9.5%	<u>Underspending</u> SEH Redundancy Pipeline Section 111 - Construction Phase 2: \$1.2M (paving delayed due to Eversource work) CP3-Sect 23,24,47, Rehabilitation and CA/RI: \$1.1M (schedule change) Sections 50 & 57 Water & 21/20/19 Sewer Rehab - Design/CA/RI: \$991k (reduced scope and less than anticipated consultant's scheduled tasks) Section 89 & 29 Redundancy - Design/CA: \$391k (Construction Administration and Resident Inspection services less than anticipated budgeted spending) Sections 25, 75, 59 & 60 Replacement - Design/CA: \$269k (boring program delayed pending receipt of base maps) Cathodic Protection Shafts E & L: \$212k (work scheduled for FY20 performed in FY19) Sections 53 and 99 Connections - Design/CA: \$209K (delay in award) Other smaller projects totaling \$180k <u>Offset Overspending</u> SEH Redundancy Pipeline Section 111 - Construction Phase 3: \$1.9M (contractor progress) Section 56 Replacement/Saugus Design/CA: \$149k, and SEH Redundancy Pipeline Phase 1 - CA/RI: \$148k (timing of consultant work)
Other Waterworks	\$12,046	\$9,950	(\$2,096)	-17.4%	<u>Underspending</u> Local Water Pipeline Financial Assistance Program: \$2.9M (timing of requests for loans) Steel Tanks Improvements - Design/CA: \$200k (schedule shift) Deer Island Water Tank Repainting: \$182k (timing of final work and pending credit change order) Other smaller projects totaling \$174k <u>Offset Overspending</u> Paint Bellevue II & Turkey Hill Tanks : \$577k, and Cosgrove Intake Roof Replacement: \$470k (work scheduled in FY19 performed in FY20) CWTP SCADA Upgrades - Design Programming RE: \$165k, and Generator Docking Station: \$148k (timing of work)
Total Waterworks	\$51,637	\$44,956	(\$6,681)	-12.9%	

**ATTACHMENT 3
FY20 CIP Year-to-Date Variance Report (\$000's)**

	FY20 Budget YTD April	FY20 Actuals YTD April	YTD Actuals vs. Budget		Explanations
			\$	%	
Business & Operations Support					
Total Business & Operations Support	\$8,671	\$3,186	(\$5,485)	-63.3%	Underspending MIS Projects: \$3.8M (timing of work) As-Needed Technical Assistance and CS/REI Services: \$891k (timing of task order work) Security Equipment & Installation: \$466k, and FY19-23 Vehicle Purchases: \$143k (timing of purchases)
Total MWRA	\$136,011	\$124,489	(\$11,522)	-8.5%	

Attachment 4
FY20 Budget vs. FY20 Projection

TOTAL MWRA	FY20 Budget	FY20 Projection	Change FY20 Budget vs FY20 Projection	
			\$	%
EXPENSES				
WAGES AND SALARIES	\$ 109,953,483	\$ 106,696,553	\$ (3,256,930)	-3.0%
OVERTIME	4,898,965	4,852,878	(46,087)	-0.9%
FRINGE BENEFITS	21,717,533	20,631,657	(1,085,876)	-5.0%
WORKERS' COMPENSATION	2,354,256	2,354,256	-	0.0%
CHEMICALS	11,811,222	11,313,756	(497,466)	-4.2%
ENERGY AND UTILITIES	24,454,796	22,907,561	(1,547,235)	-6.3%
MAINTENANCE	32,726,954	30,501,220	(2,225,734)	-6.8%
TRAINING AND MEETINGS	504,394	349,992	(154,402)	-30.6%
PROFESSIONAL SERVICES	8,295,315	6,463,033	(1,832,282)	-22.1%
OTHER MATERIALS	6,867,239	5,695,049	(1,172,190)	-17.1%
OTHER SERVICES	24,683,370	24,675,574	(7,796)	0.0%
TOTAL DIRECT EXPENSES	\$ 248,267,527	\$ 236,441,528	\$ (11,825,999)	-4.8%
INSURANCE	\$ 2,611,222	\$ 2,511,222	(100,000)	-3.8%
WATERSHED/PILOT	26,833,600	23,423,930	(3,409,670)	-12.7%
HEEC PAYMENT	4,429,316	4,429,316	-	0.0%
MITIGATION	1,654,618	1,654,618	-	0.0%
ADDITIONS TO RESERVES	2,094,284	2,094,284	-	0.0%
RETIREMENT FUND	7,315,000	7,315,000	-	0.0%
POSTEMPLOYMENT BENEFITS	5,962,457	5,962,457	-	0.0%
TOTAL INDIRECT EXPENSES	\$ 50,900,497	\$ 47,390,827	\$ (3,509,670)	-6.9%
STATE REVOLVING FUND	\$ 92,797,295	\$ 88,126,851	(4,670,444)	-5.0%
SENIOR DEBT	202,299,609	219,019,413	16,719,804	8.3%
SUBORDINATE DEBT	169,609,844	139,323,153	(30,286,691)	-17.9%
LOCAL WATER PIPELINE CP	5,846,827	2,117,483	(3,729,344)	-63.8%
CURRENT REVENUE/CAPITAL	15,200,000	15,200,000	-	0.0%
CAPITAL LEASE	3,217,060	3,217,060	-	0.0%
DEBT PREPAYMENT	5,000,000	5,000,000	-	0.0%
DEBT SERVICE ASSISTANCE	(890,239)	(890,239)	-	0.0%
TOTAL DEBT SERVICE	\$ 493,080,395	\$ 471,113,722	\$ (21,966,674)	-4.5%
TOTAL EXPENSES	\$ 792,248,419	\$ 754,946,077	\$ (37,302,343)	-4.7%
REVENUE & INCOME				
RATE REVENUE (DSA)	\$ 761,767,000	\$ 761,767,000	-	0.00%
OTHER USER CHARGES	9,216,425	9,957,409	740,984	8.0%
OTHER REVENUE	5,761,022	6,049,073	288,051	5.0%
RATE STABILIZATION	-	-	-	0.0%
INVESTMENT INCOME	15,503,973	14,575,465	(928,508)	-6.0%
TOTAL REVENUE & INCOME	\$ 792,248,420	\$ 792,348,947	\$ 100,527	0.0%

VARIANCE: **\$ (37,402,870)** **\$ (37,402,870)**

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: May 27, 2020
SUBJECT: Approval of Lease for Records Storage Space
23 & 27 Production Road LLC



COMMITTEE: Administration, Finance & Audit

 INFORMATION
 X VOTE

Paula Weadick, Director, MIS
Lisa Grollman, Project Manager, RPEM
Preparer/Title


Michele S. Gillen
Director of Administration

RECOMMENDATION:

To approve the recommendation of the Selection Committee to award lease A622 to 23 & 27 Production Road LLC; and to authorize the Executive Director, on behalf of the Authority, to execute said lease for approximately 10,000 square feet of records storage and office space at 153 Production Road, Walpole for an initial ten-year term from November 1, 2020 to October 31, 2030, for an amount not to exceed the annual rent shown in Attachment A, plus a proportional share of real estate taxes, with two five-year options each subject to Board approval.

DISCUSSION:

Since 2006, MWRA has leased space at 34 St. Martin Drive in Marlborough. The initial lease provided warehouse storage space during the demobilization of construction for the Carroll Water Treatment Plant. In 2009, the Board of Directors authorized the extension of the lease agreement to satisfy MWRA’s continued need to store equipment, rolling stock and spare parts for the Carroll Plant as well as MWRA records. Since that time, the lease has been extended through January 2021. In 2018, staff reported that staff would re-evaluate storage requirements prior to the Marlborough lease termination and competitively bid the storage lease.

DISCUSSION:

MWRA currently leases 11,933 square feet of warehouse storage space in Marlborough. Approximately 10,000 square feet. is used for paper records storage and 2,000 square feet of space is used for spare parts, rolling stock, and other equipment for the Carroll Plant. Staff have confirmed that the materials for the Plant can be relocated and housed at the Southborough Facility, therefore, 10,000 square feet is needed for the Records Center.

Procurement Process

To observe the best practice of seeking the most cost efficient and appropriate market rates, staff issued a Request for Proposals and Bids (RFP/B) to lease approximately 10,000 square feet for records storage and office space for a 10-year term with two 5-year options to extend (a potential

of 20 years). The RFP/B sought locations within forty miles of one of MWRA's Chelsea, Winthrop or Southborough facilities. In November 2019, advertisements ran in local papers, the New England Real Estate Journal, the Banker and Tradesman and a notice was published in the Central Register. Staff then directly solicited the advertisement for the RFP/B to approximately 40 brokers or representatives and followed up with direct calls to representatives encouraging them to request the RFP/B.

In December 2019, six firms submitted responsive proposals and bids for Records Center use:

- Colliers International representing ABC Commercial Properties, 5 Campanelli Circle, Canton
- Cushman and Wakefield, representing POFCO Inc., 287 Newtonville Avenue, Newton
- 23 & 27 Production Road, LLC representing itself, 153 Production Road, Walpole
- Jones Lang LaSalle, representing Marlborough Technology Partners LLC, 34 St. Martin Drive (Suite 12), Marlborough
- Jones Lang LaSalle, representing Marlborough Technology Partners LLC, 34 St. Martin Drive (Suite 13), Marlborough
- Lincoln Property Company, representing LPCH D'Angelo L.P, 50 D'Angelo Drive, Marlborough

The Selection Committee reviewed and scored the Proposals based on the following criteria: Cost (40 points); Location (25 points); Building and Site Conditions (20 points); Landlord Capacity (10 Points); and Favorability of Lease Terms (5 points), which included the willingness to sign MWRA's form of lease as issued with the RFP/B.

Proposers submitted cost information in different formats and the table below equalizes the information provided as follows:

- Base Rent: Three proposers presented a base rent for all 20 years as requested in the RFP/B. The three Marlborough proposals submitted rent proposals for the first 10 years, stipulating that rent would have to be renegotiated for any extension terms.
- Operating Costs: The Canton and Walpole proposals included operating costs in the rental rates thereby creating fixed and knowable operating expenses. The other four proposals provided a triple net lease proposal, whereby pro-rata share of operating costs would be additive to rent. These proposers provided current year operating costs, which were inflated 3% per year for comparative purposes.
- Taxes were based on recent tax bills and inflated 3% per year.
- To equalize the value of the proposals, a net present value with a discount rate of 2.85% was applied to the 10 and 20 year cost schedules provided.

The proposed lease costs are illustrated as follows:

Landlord/ Location	Square Feet Proposed	Total Estimated 10-Year Cost	Total Estimated 20-Year Cost	1 st Year Cost/s.f.	20th Year Cost/s.f.
ABC Commercial Properties; 5 Campanelli Circle, Canton	11,513	\$2,400,100	\$4,835,300	\$20.71	\$36.32
23 & 27 Production Road LLC, -153 Production Rd., Walpole	10,000	\$1,547,368	\$3,021,438	\$15.74	\$24.79
POFCO, 287 Newtonville Road, Newton	18,674	\$4,282,900	\$8,950,400	\$21.21	\$43.01
Marlborough Technology Partners, 34 St. Martin Drive, Suite 12, Marlborough	11,933	\$1,689,000	To be renegotiated	\$14.06	---
Marlborough Technology Partners, 34 St. Martin Drive, Suite 13 Marlborough	11,094	\$1,586,200	To be renegotiated	\$14.20 -	---
LPCH, 50 D'Angelo Drive, Marlborough	10,200	\$1,570,000	To be renegotiated -	\$14.61 -	---

Short-Listed Proposals and Locations

The Selection Committee ranked the proposals and eliminated the three lowest ranked. The POFCO (Newton) proposal offering 18,674 square feet was not further sub-dividable, rendering the location cost prohibitive. The site also required significant internal and external repairs and upgrades. The ABC Commercial (Canton) proposal was the second highest cost proposal for the first 10-year period and the building required significant conversion for MWRA use. The Marlborough Technology Partners proposal for 34 St. Martin Drive, Suite 13 contained a significant proportion of office space that would require additional renovations to house the records center and the landlord did not include a build-out allowance for such conversion.

The Selection Committee members visited the three remaining locations. Those locations included 153 Production Road (Walpole), 34 St. Martin Drive Suite 12 (Marlborough), and 50 D'Angelo Drive (Marlborough). These locations were higher ranked due to their lower costs, suitable building conditions and location, and landlord capacity. The final ranking of the finalist proposals and locations was as follows:

Proposal	Total Points	Order of Preference	Final Rank
153 Production Road Walpole	412.5	6	1
34 St. Martin Drive, Suite 12, Marlborough	394	9	2
50 D'Angelo Drive, Marlborough	343	15	3

The Selection Committee voted to recommend the Walpole proposal and location because it met or exceeded the MWRA requirements as follows:

- **Cost:** The proposal provides the best value, most competitive cost, and financial certainty to MWRA over the next 20 years. The proposal presented the lowest overall cost for the initial term. Unlike the other finalists, the proposal includes a fixed rent schedule for the full 20 years eliminating significant rent hikes in the option years. The Proposer also included building operating and maintenance costs in its rent for the full 20 years, minimizing risks of unforeseen repair and operating costs.
- **Favorability of Lease Terms:** The Proposer, unlike the other finalists, accepted the MWRA form of lease thereby providing protections to MWRA and eliminating potential costs.
- **Building and Site Conditions:** The Proposer is constructing a new 30,000 square-foot building, of which MWRA will lease one-third. The leased space will be efficiently designed to suit MWRA requirements. The Proposer has stated that it has flexibility on the location of the windows and loading doors and the demising wall. The Proposer included humidity control within its new HVAC system for the records storage area, which will provide better long-term protection of records and ensure compliance with industry humidity control recommendations.
- **Landlord Capacity:** The proposer received positive recommendations from references. DCAMM chose the Proposer to construct a 13,000 square foot building to house the Norfolk County Mosquito Control District Facility offices and garage under a competitive procurement. According to DCAMM staff, the Proposer met the design, construction and permitting requirements and delivered the premises by the date required. Plans and renderings for the Records Center and some photographs of the similar Mosquito Control Facility, which the Selection Committee toured, are contained in Attachment B.
- **Schedule:** Engineering and Construction staff have reviewed the Proposer's initial plans and schedule, and believe that construction will occur in the timeframe required. The Proposer has secured necessary building permits, expects the building components to be delivered in June 2020, and is on track with its project schedule. Receipt of a Certificate of Occupancy is scheduled for November 1, 2020. The current building schedule will allow three months for tenant buildout.

While the Selection Committee did not explicitly evaluate the financial stability of the firms, the Proposer stated that the Records Center project, along with projects in its industrial park, are self-funded. The Proposer reports zero debt on its real estate portfolio, and there is sufficient cash on hand to fund the development of this project as well as all future projects for this park. The construction of the building is proceeding independent of an MWRA tenancy.

The Selection Committee therefore recommends that the MWRA enter a lease with 23 & 27 Production Road, LLC for the Records Center.

BUDGET/FISCAL IMPACT:

The FY21 Current Expense Budget include adequate funding for this lease under Facilities Management. The required funding will be included in subsequent budget requests per the extended lease.

MBE/WBE PARTICIPATION:

Due to the specialized nature of these services, there were no MBE/WBE requirements for this RFP and Lease.

ATTACHMENTS:

A - Proposed Annual Rent Expense

B - Rendering and Layouts

ATTACHMENT A
 23 & 27 Production Road LLC
 153 Production Road, Walpole, MA
 Proposed Annual Rent Expense

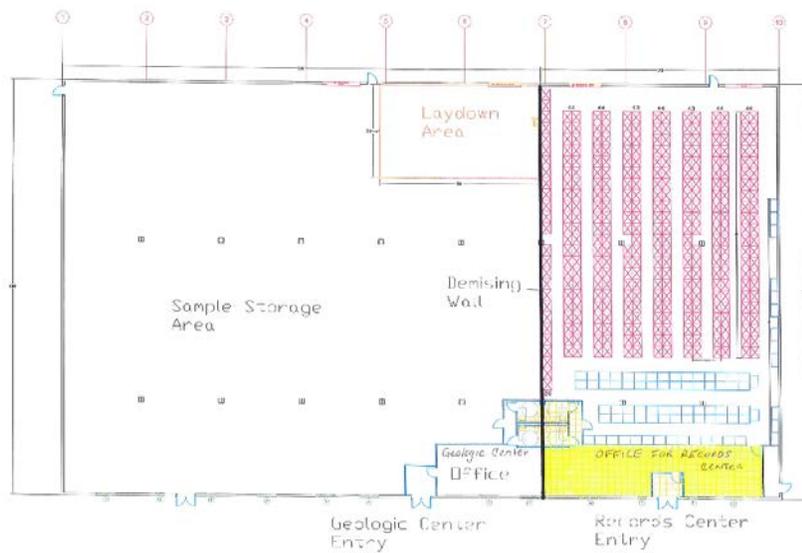
Year	Proposed Annual Base Rent ¹
1	\$ 150,250
2	\$ 153,931
3	\$ 157,705
4	\$ 161,572
5	\$ 165,536
6	\$ 169,600
7	\$ 173,765
8	\$ 178,034
9	\$ 182,410
10	\$ 185,895
Total Ten-Year	1,678,698
11	\$ 188,492
12	\$ 193,205
13	\$ 198,035
14	\$ 202,986
15	\$ 208,060
16	\$ 213,262
17	\$ 218,593
18	\$ 224,058
19	\$ 229,660
20	\$ 235,401
Total 20 Year	\$3,790,450

¹ Base Rent includes landlord's operating costs and insurance. Rent does not include real estate taxes, estimated at approximately \$7000 for the first year, or MWRA's utility costs, dedicated operating costs (such as janitorial services), moving or fit out (shelving, security and cubicles)

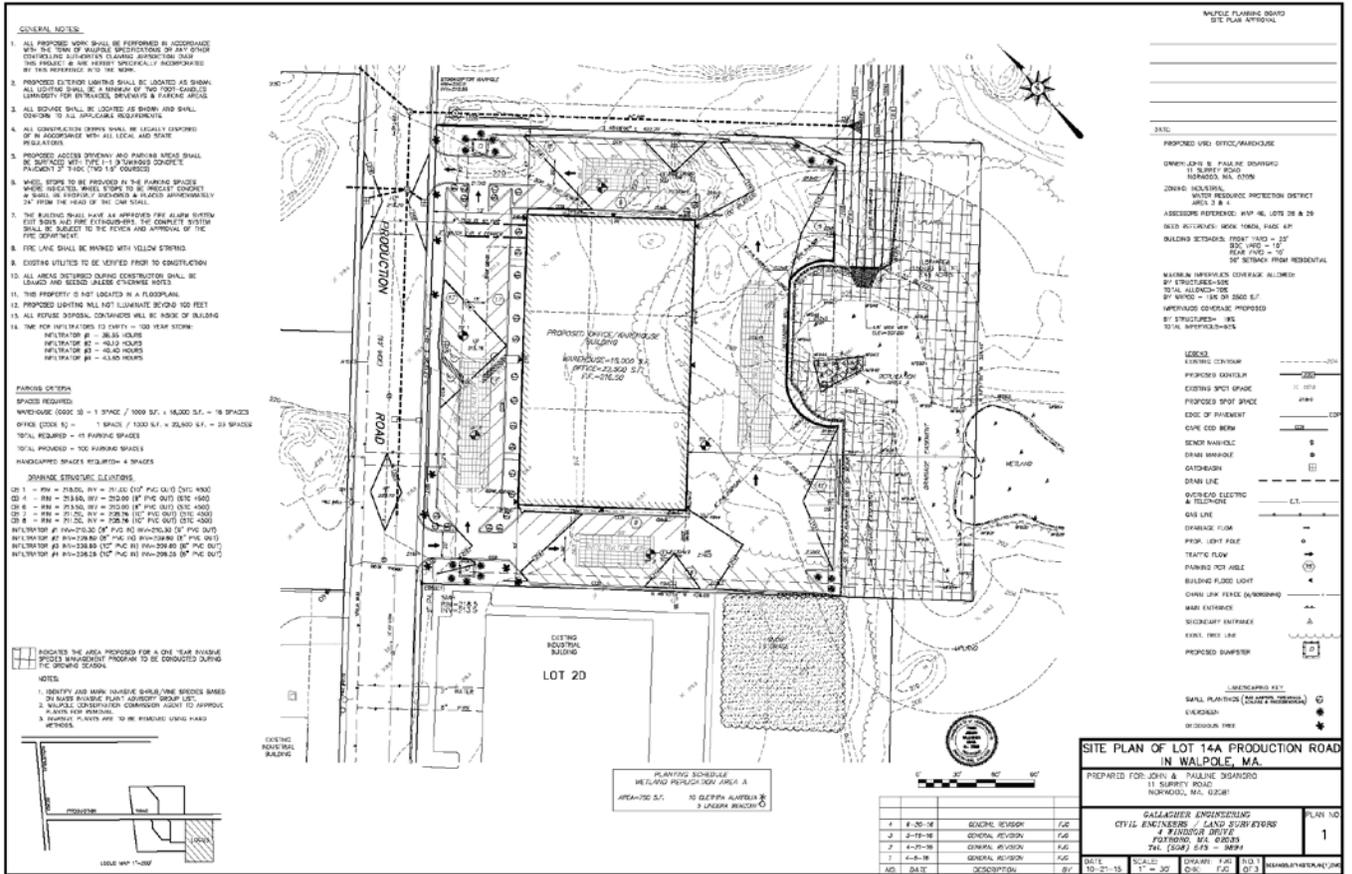
ATTACHMENT B



Rendering of New Building
(Records Center to Occupy a Portion)



Schematic Layout for Records Center ATTACHMENT B



Site Plan

ATTACHMENT B
Mosquito Control Building
(Abutting property containing similar build-out)



Exterior of Building



Storage/Garage Area



Lunch/Break Room



Interior Office Area

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: May 27, 2020
SUBJECT: MWRA FY21 Insurance Program Renewal

COMMITTEE: Administration, Finance & Audit

 INFORMATION

 X VOTE


Michele S. Gillen

Director of Administration

Paul F. Whelan, Risk Manager
Douglas J. Rice, Director of Procurement
Preparer/Title


Thomas J. Durkin
Director of Finance

MWRA's Insurance Program is renewed on an annual basis at the beginning of each fiscal year. Annual renewals are required due to the insurance industry's reluctance to provide firm pricing for more than a one-year period. All policies expire on June 30, 2020 and require renewal. All policies, except Treasurer's Bond and Excess General Liability, were solicited under a competitive bid process and are discussed below. Significant premium increases were received for property and general liability coverages reflecting current insurance marketplace conditions which, when combined with other program costs, results in a 32% increase over the FY20 program. This year's recommended program renewal totals \$2,972,385.

RECOMMENDATION:

To approve awards to the lowest eligible and responsive proposers for insurance policies, bonds, and related broker services for MWRA's FY21 Insurance Program, and to authorize the Executive Director, on behalf of the Authority, to execute contracts for broker services, for the terms, premiums, and fees described below, and incorporated by reference for the record, resulting in a total program amount not to exceed \$2,972,385:

- (1) Workers' Compensation Excess Policy with Safety National Casualty Corporation, submitted by broker Willis Tower Watson Northeast Inc. (Willis), for the period beginning July 1, 2020, through June 30, 2021, with a \$25 million limit and a \$500,000 self-insured retention, for a premium of \$242,163;
- (2) Property Policy (including Boiler & Machinery coverage) with Factory Mutual Insurance Co. (FM Global), for the period beginning July 1, 2020, through June 30, 2021, with various limits of coverage and a \$2.5 million self-insured retention, resulting in a FY21 premium of \$1,605,150;

- (3) General Liability Policy (including Automobile Liability, Marine Liability, Wharfingers, Limited Pollution, and Employment Practice Liability) with Lexington Insurance Company and Berkshire Hathaway Specialty Insurance, submitted by broker, Optisure Risk Partners, LLC d/b/a Richards Robinson Sheppard (Richards Robinson Sheppard), for the period beginning July 1, 2020 through June 30, 2021, with a combined \$25 million limit and a \$2.5 million self-insured retention, for a combined premium of \$468,537;
- (4) Excess General Liability Policies with insurance companies to be determined and submitted by broker Richards Robinson Sheppard, for the period beginning July 1, 2020, through June 30, 2021, providing a combined total of \$75 million of excess liability coverage for a total combined premium not to exceed \$475,000;
- (5) Public Official's Liability Policy with AIG Specialty Insurance, submitted by broker Arthur J. Gallagher Risk Management Services Inc. (Arthur J. Gallagher), for the period beginning July 1, 2020 through June 30, 2021, with a \$5 million limit and a \$1 million self-insured retention, for a premium of \$100,513, including broker commission;
- (6) Fiduciary Liability Policy with Chubb/ACE USA Insurance Co., submitted by broker Arthur J. Gallagher, for the period beginning July 1, 2020, through June 30, 2021, with a \$5 million limit and a \$1 million self-insured retention, for a premium of \$8,452, including broker commission;
- (7) Public Official's/Crime Bond with Great American Insurance Co., submitted by broker Richards Robinson Sheppard, for the period beginning July 1, 2020, through June 30, 2021, with a \$1 million limit and a \$25,000 deductible for a premium of \$4,820;
- (8) Treasurer's Bond with a \$1 million limit with an insurance company to be determined in an amount not to exceed \$2,500, with a one-year term beginning January 2021; and
- (9) Broker contracts with Richards Robinson Sheppard for an amount of \$45,000, Willis Towers Watson Northeast Inc., for an amount of \$20,250 and Arthur J. Gallagher for the commissions included within the policy premiums, from notice of award through June 30, 2021.

BACKGROUND:

MWRA's insurance program consists of various types of coverage including: Excess Workers' Compensation, Property (including Boiler and Machinery coverage), General Liability, Excess Liability, Public Official's Liability, Fiduciary Liability, Public Official's/Crime Bond, and Treasurer's Bond. The Excess Workers' Compensation policy is required by state statute and is a prerequisite for MWRA to operate as a self-insured entity for Workers' Compensation benefits. Insurance coverage required by MWRA's Enabling Act includes Public Official's/Crime Bond and

Treasurer's Bond which serve to protect the Authority against losses due to fraudulent or dishonest acts, failure to perform duties faithfully or improper accounting of monies or property by employees.

Other policies are maintained in order to protect MWRA assets and limit MWRA's financial exposure to loss. In addition, policies are maintained to comply with covenants contained within MWRA's General Revenue Bond Resolution. All policies under the current program (except Treasurer's Bond) expire on June 30, 2020, and require renewal.

DISCUSSION:

MWRA's insurance program is renewed on an annual basis due to the reluctance on the part of insurance companies to provide pricing for more than a one-year term. For FY21, staff conducted a full competitive process for all lines of coverage in an effort to obtain the most competitive pricing and coverage available. Staff anticipated significant increases in rates and premiums on all lines of coverage for FY21 based on current insurance market conditions. Insurance companies across all lines of coverage have seen increased losses and risk exposures leading to an increased level of uncertainty and risk. Investment return declines due to the sharp stock market pull back has added pressure on their reserve balances pushing the need for higher premium income. MWRA's incumbent property insurance carrier, FM Global, recently (2017 & 2018) posted two years of back to back unfavorable loss ratios which has contributed to the unavailability of its Membership Credit and has resulted in upward pressure on property rates. Additionally, underwriters in the general liability category continue to limit and diversify their risk exposures thereby reducing the number of companies willing to offer certain coverages. These market conditions, when combined with variables specific to MWRA, such as the increased replacement value of insured property due to inflation, increased flood exposure due to sea level rise, increased estimated payrolls, and MWRA's existing competitively priced program, caused staff to anticipate a double digit increase in the overall FY21 insurance program cost.

This year, staff again made an effort to attract multi-year policies, but none were received. Premiums for Excess Workers Compensation and Public Officials Insurance increased due to the market conditions and in part, due to changes in specific MWRA rating factors including increased payroll and claim activity. The premiums for General Liability and Property coverage continue to increase sharply due to the above referenced market conditions. MWRA's Insurance Consultant, KFDA Advisors, reports seeing similar trending across its client base. Broker Fees remain stable with flat or small increases. Overall, the cost of the insurance program recommended for FY21, including all policies and broker fees, is \$2,972,385, an increase of 32% from the expiring FY20 program.

PROCUREMENT PROCESS:

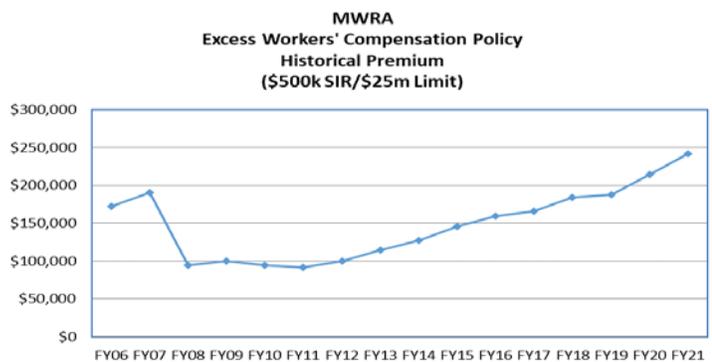
In February, staff began the procurement process by advertising a Request for Letters of Interest from insurance brokers and direct writers.¹ In addition, staff sent direct solicitations to 20 brokers that were known to staff as having an interest in or participation in previous MWRA insurance

¹ A direct writer is an insurance company that deals directly with customers and does not require a broker as an intermediary.

procurements. In response to the solicitation, five brokers and one direct writer submitted Letters of Interest listing their requested insurance markets. Staff, with the assistance of MWRA’s Insurance Consultant, reviewed all requests and assigned more than 25 insurance companies to the brokers. A Request for Qualifications/Proposals, including technical specifications and rating data, was sent to all participants along with their market assignments. Multiple requests for additional time for preparation of proposals were received and the due date was extended twice. On May 6, 2020, MWRA received five proposals.

Proposals varied with respect to the lines of coverage offered. As shown on the attached table, while multiple proposals were received for Excess Workers Compensation and General Liability, the other policies had only one proposal. This response is similar to previous years and not surprising due to the competitive pricing of MWRA current program. The proposals were reviewed by MWRA’s Insurance Consultant, KFPA Advisors, for adherence to MWRA’s technical specifications and then ranked by cost. The approvals requested herein represent those recommended by MWRA’s Insurance Consultant for each line of coverage sought. The attached table provides a summary of all lines of coverage with the limits, deductibles, and premiums comparing the expiring FY20 premiums with the proposed FY21 premiums. A brief summary of each line of coverage is provided below.

Workers’ Compensation Excess – Two proposals were received for this coverage. One proposer, Willis Towers Watson Northeast Inc., submitted a policy with Safety National Casualty Co. for a policy with a \$500,000 self-retention level and a \$25 million limit, for an annual premium of \$242,163. This quote is \$28,155 more than the FY20 policy for this same coverage. This increase in premium is the result of a 10% rate increase applied to a 2.9% increase in estimated payroll for FY21. Two options for higher self-retention levels of \$625,000 and \$750,000 were also included in the proposal with lower premium costs. A second proposal was received from broker USI Insurance, with a policy from AEGIS Insurance for a premium of \$210,000; however, the proposed policy had coverage deficiencies and was conditional on also purchasing a separate General Liability Policy from AEGIS.



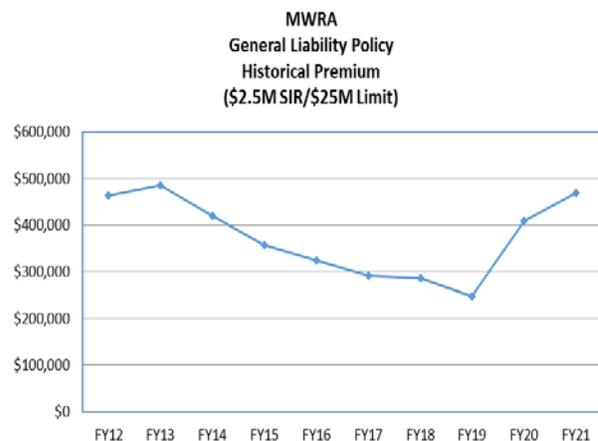
Staff reviewed historical workers’ compensation claims data and have concluded that the potential premium savings in purchasing a policy with the higher self-retention level does not justify assuming the risk of an additional \$125,000 or \$250,000 for each claim or occurrence, as just one catastrophic claim could eliminate and exceed more than 10 years of accumulated premium savings. In addition, the maximum self-retention level currently allowed by the Division of Insurance is \$500,000. Staff recommend the purchase of the policy from Safety National Casualty Co. with a \$500,000 per occurrence self-insured retention and \$25 million limit through broker, Willis Towers Watson Northeast Inc., for the specified premium above and an associated broker fee of \$20,250. The chart

above shows MWRA’s historical premium cost for this line of coverage over the past fifteen years.

Property Insurance (including Boiler & Machinery) – One proposal was received for this line of coverage from direct writer FM Global, the incumbent provider. The FM Global proposal contained various policy options with a \$2.5 and \$5.0 million self-retention levels with limits ranging from \$200 million to \$300 million in coverage. FM Global’s proposal also included reduced limits of coverage for some exposures including a reduced flood limit for certain high-risk MWRA facilities and a reduced limit for damages arising from communicable disease. The option shown on the attached table and recommended by staff includes a policy limit of \$300 million with a \$2.5 million self-retention for a total premium of \$1,605,150. This premium is based on a fixed rate applied to MWRA’s Total Insured Value (TIV). The fixed rate offered by FM Global increased from 2.75 cents per \$100 TIV to 4.1 cents per \$100 TIV, an increase of approximately 48%. FM Global attributes such large increase to a number of factors including 1) a prolonged period of softening rates, 2) the company’s recent unfavorable loss ratios, 3) increasing exposure to flooding losses and 4) an increase in property losses due to natural disasters. Such rate increases are not unique to MWRA and are reflective of current market conditions for property coverage. MWRA’s Insurance Consultant has seen similar increased renewal rates with other clients.

FM Global also submitted pricing options with a higher self-retention level of \$5 million. These options were not cost effective since they exposed the Authority to an additional \$2.5 million of risk exposure in return for relatively small annual premium savings that would quickly evaporate with just one claim in excess of the \$2.5 million level.

General Liability – Two proposals were received for the General Liability coverage. One from incumbent broker Richards Robinson Sheppard, which included a combined quote from the incumbent carrier, Lexington Insurance Co, with a limit of \$10 million and a quote from Berkshire Hathaway Specialty Co. with the next \$15 million. This combined proposal offered \$25 million in coverage with a \$2.5 self-retention for a combined premium of \$468,537 (including applicable surplus lines charges), with an associated broker fee of \$45,000. This reflects a 14% increase over the expiring policy. Richards Robinson Sheppard also submitted another Lexington Insurance option with \$10M coverage for a premium of \$251,940. This option was a claims-made policy form vs the current occurrence-form required by the specifications. The second proposal was from broker, USI Insurance Services Inc., with AEGIS Insurance Services LLC, for a \$25 million policy coverage for a premium of \$301,600 (including surplus lines charges) and an associated broker fee of \$50,000. This proposal was also based on a claims-made form policy. While this proposal costs less in premium, the coverage afforded was lacking in a number of ways. MWRA’s Insurance consultant, KF&A Advisors, reviewed the policy forms submitted and identified a number of areas where the policy fell short of the specifications. These shortcomings and/or ambiguities in the policy



could not be resolved to the Authority's satisfaction. After reviewing both coverage forms, it was determined that the Lexington occurrence based proposal provided broader coverage and clarity and was the preferred alternative.

The chart above provides Historical Premium cost for this coverage over the past ten years. While the proposed amount is 14% higher than last year, it is still lower than premiums paid for the same coverage back in the FY13 timeframe, thus illustrating the cyclical nature of the insurance marketplace. Staff recommend the acceptance of the proposal from Richards Robinson Sheppard including a broker fee of \$40,000, which includes services for placement of the Excess Liability policies outlined below.

Excess General Liability – The recommended broker for the above General Liability coverage, Richards Robinson Sheppard, will be directed to solicit quotes from various insurance companies for the additional excess layers of liability coverage.² The companies and final premium costs for the additional \$75 million of excess liability coverage will not be available in time for this Board meeting. In order to keep all insurance-related items together in one staff summary, staff are recommending a not to exceed amount of \$475,000 for this item. This amount includes an anticipated increase of about 12% because the excess layer pricing is derived from the underlying General Liability policy outlined above.

Public Official's Liability – One proposal was received for this line of coverage with the specified \$5 million limit and \$1 million self-retention, from National Union Fire Insurance Company of Pittsburgh, PA (AIG), submitted through Arthur J. Gallagher, for a premium of \$100,513. This represents an increase of \$30,734 from the prior FY20 policy and reflects an increasing level of claim activity in the area of Employment Practice Liability including discrimination and sexual harassment exposures. Market conditions and recent loss activity specific to the MWRA has contributed to the increase in this premium. Staff recommend the placement of this coverage for the specified premium, which includes broker commission.

Fiduciary Liability – One proposal was received for this line of coverage with the specified \$5 million limit and \$1 million self-retention, from the incumbent, Chubb/ACE USA, submitted through Arthur J. Gallagher, for a premium of \$8,452. This is \$1,495 or 21% higher than the existing FY20 policy. Staff recommend the placement of this coverage with Chubb/ACE USA for the specified premium, which includes broker commission.

Public Official's/Crime Bond – One proposal was received for this line of coverage with the specified \$1 million limit, from incumbent, Great American Insurance Company, submitted through Richards Robinson Sheppard, for a premium of \$4,820. This is \$140 or 3% higher than the existing FY20 policy. Staff recommend the placement of this coverage with Great American for the specified premium.

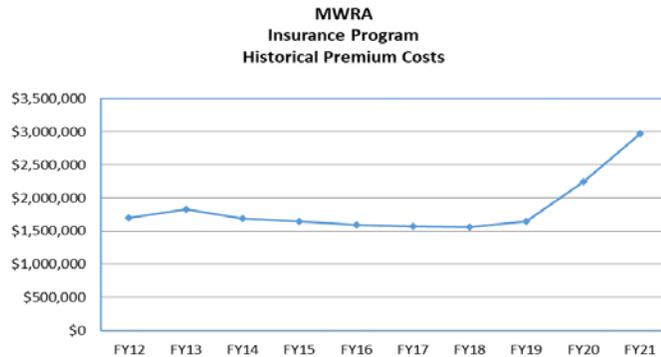
Treasurer's Bond – The Treasurer's Bond is required by the MWRA Enabling Act and is written in

² Excess liability policies cannot be purchased until the underlying policy is first established.

the name of the person holding the position of Treasurer. This bond is off-cycle from the rest of the insurance program and does not expire until January 2021. To keep all insurance program approvals consolidated in one staff summary, staff included a not-to-exceed amount of \$2,500 for the renewal of this bond upon its expiration. The broker fee associated with renewal of this bond is included in the FY21 broker scope of services.

CONCLUSION

Staff recommend the renewal of MWRA’s insurance program for FY21, with the various coverages, limits and self-insured retention levels from various brokers and insurance companies as outlined above and as included in the attached table. If approved, the FY21 total insurance cost will be \$2,972,385. The chart to the right provides MWRA’s Insurance Program Historical Premium Costs for the past 10 fiscal years.



BUDGET/FISCAL IMPACT:

The Final FY21 CEB includes \$3.1 million for the total cost of maintaining MWRA’s insurance program, consisting of premiums and fees and for payment of estimated claims and damages in FY21. The budget contains sufficient funds for the renewal of the insurance program outlined above.

MBE/WBE PARTICIPATION:

There were no minimum MBE and WBE participation requirements established for this procurement, as the nature of the services provided do not allow for subcontracting.

MWRA FY21 INSURANCE PROPOSALS

EXPIRING FY20

PROPOSED FY21

Item #	Coverage	Deductible/ Limit	FY20 Premium	Current (FY20) Insurance Co. (Broker)	FY21 Bids (See Note 1)	FY21 Insurance Co. (Broker)	Notes
1	Excess Workers Comp.	\$500K / \$25M \$625K / \$25M \$750K / \$25M \$500K / \$25M	214,008	Safety National Casualty Corp (Willis)	242,163 226,728 204,043 210,000	Safety National Casualty Corp. (Willis) Safety National Casualty Corp. (Willis) Safety National Casualty Corp. (Willis) AEGIS (Richards Robinson Sheppard)	Premium increase of \$28,155 resulting from 10% rate increase applied to 2.9% payroll increase. The \$500K deductible option is maximum allowed by Division of Insurance. Savings from higher (\$750K) deductible not feasible. AEGIS-coverage deficiencies & conditions.
2	Property Insurance (including Boiler & Machinery)	\$2.5M / \$300M \$5.0M/\$300M	1,056,442	FM Global (No Broker)	1,605,150 1,540,066	FM Global (No Broker) FM Global (No Broker)	FY21 bid based on 48% increase in rate applied to a 2% increase in TIV. New facility added Clinton Maintenance Facility. No Member Credit available. Flood limits reduced on some locations. Increased retention level not feasible.
3	General Liability (Incl., Auto, Marine, Wharfingers, Limited Pollution and Employment Practice Liability)	\$2.5M/\$25M \$2.5M/\$25M \$2.5M/\$10M	410,235	Lexington Insurance Co. and Berkshire Hathaway Specialty Ins. (Richards Robinson Sheppard)	468,537 301,600 251,940	Lexington Insurance Co. and Berkshire Hathaway Specialty Ins. (Richards Robinson Sheppard) AEGIS Insurance Services (USI Insurance Services) Lexington Insurance Co. (Richards Roberts Sheppard)	Premium increase of \$58,302 or 14%. Price increase reflects current market conditions. AEGIS \$25M and Lexington \$10M proposals are Claims-Made Form vs Occurrence Form. Premiums include Surplus Lines charge of 4%. Proposed Lexington policy selected based on initial bid of \$511,542, which was subsequently reduced.
4	Excess Liability	\$25M/\$75M	425,000	Allied World, Great American, Berkshire Hathaway and Lexington (Richards Robinson Sheppard)	475,000	To be determined. (Richards Robinson Sheppard)	Premium shown is not to exceed amount. This coverage is based on the General Liability policy above which must be finalized first. Final FY20 pricing was \$404,032.
5	Public Official's Liability	\$1M / \$5M	69,779	Chubb/ACE (Arthur J. Gallagher)	100,513	National Union (AIG) (Arthur J. Gallagher)	Premium increase of \$30,734 (or 44%). Higher of claims filed and increased court awards both nationally and specific to MWRA. Incumbent (Chubb) did not submit renewal bid. Bid amount includes broker commission.
6	Fiduciary Liability	\$1M / \$5M	6,957	Chubb/ACE (Arthur J. Gallagher)	8,452	Chubb/ACE (Arthur J. Gallagher)	Premium increase of \$1,495 (or 21%). Bid amount includes broker commission.
7	Public Official's/Crime Bond	\$25K / \$1M	4,680	Great American (Richards Robinson Sheppard)	4,820	Great American (Richards Robinson Sheppard)	Premium increase of \$140 (or 3%).
8	Treasurer's Bond	\$0/\$1M	2,500	Travelers Casualty & Surety (Richards Robinson Sheppard)	2,500	To Be Determined. (Richards Robinson Sheppard)	Renews in January 2021. Amount shown is not-to-exceed amount. FY20 actual was \$1,656
9	Broker Fees -Various		60,250	Various	65,250	Various - See Note 2	Broker Fee increase of \$5,000 (or 8%).
Total Program Cost					\$ 2,249,851	\$ 2,972,385	

Note 1: Proposed for approval shown in bold.

Note 2: Broker Fees are \$45,000 for Richards Robinson Sheppard and \$20,250 for Willis Towers Watson Northeast Inc.

Arthur J. Gallagher's commission for Public Official and Fiduciary Policies are included in premiums shown.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director
DATE: May 27, 2020
SUBJECT: Main Line Adjustment Project
Fore River Railroad
J.F. White Contracting Co.
Contract FRR32, Change Order 3



COMMITTEE: Administration, Finance & Audit

VOTE
 INFORMATION

Sean R. Cordy, Sr. Financial Analyst
Matthew R. Horan, Deputy Director, Finance/Treasurer
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 3 to Contract FRR32, Fore River Railroad Main Line Adjustment Project, with J.F. White Contracting Co., for a lump sum amount of \$283,693.91, increasing the contract amount from \$2,393,541.58 to \$2,677,235.49, and increasing the contract term by 419 days from May 17, 2019, to July 9, 2020.

Further, to authorize the Executive Director to approve additional change orders as may be needed to contract FRR32 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 Fore River Railroad Corporation (FRRC) is a Massachusetts railroad corporation, wholly owned by MWRA, which was acquired in 1987 as part of the purchase of former General Dynamics Quincy Shipyard. The FRRC has been providing freight rail services to the Quincy Point area since 1903 and its current primary customers are MWRA's Pelletizing Plant and Twin Rivers Technologies Manufacturing.

Operations on the railroad are conducted by the Fore River Transportation Corporation under an agreement with the FRRC. Under the terms of the operating agreement, Fore River Transportation Corporation pays the FRRC 50.5% of its gross revenue. The FRRC uses this revenue, along with available funds, to pay for its operating and capital expenses. MWRA was awarded a \$500,000 grant from the Massachusetts Department of Transportation's Industrial Rail Access Program for

this project. The FRRC's cash flow projections indicated it will have sufficient funds to pay for all project costs not covered by the grant funding.

When the railroad was originally constructed in 1903, the locomotives and railcars were generally 40 to 50 feet long. At that time, the sharp curves necessary to extend the tracks around buildings and other shipyard structures were not a hindrance to operations. As the length of the rail equipment has increased, the sharp curves present an increased risk for derailment. Contract FRR32 includes construction of a new main line track with a more gradual 18° curve, as opposed to the existing 26°, 28° and 30° curves. The new alignment will allow cars up to 89 feet long access to the entire railroad. The work also includes the construction of a new storage track.

This Change Order

Change Order 3 consists of the following item.

<u>Excavation, Trench Support, Soil Disposal and Backfill</u>	\$283,693.91
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After commencement of the contract, Dig Safe was contacted to identify utilities entering the private property where the work was to occur. The Dig Safe markings identified a natural gas line entering the private property, which was not shown on any plans. On March 29, 2019, Change Order 1 to this contract was approved to allow the Contractor to conduct vacuum excavations around the existing gas line to determine its depth and location. The test pits revealed the existing line was too shallow and directly in the new track alignment. As a result, the existing gas line had to be removed to allow for construction. In order to proceed with the construction work, National Grid (NGrid) was required to deactivate and vent the existing gas line and install a new line to provide service to the buildings. In May 2019, a request was placed with NGrid to shut off the existing service and develop plans for the replacement line. Due to the Merrimack Valley gas explosions on September 13, 2018, new restrictions were placed on the gas companies. One of the new restrictions requires all work on a gas line, including shutoffs, to have plans drafted by a professional engineer. This requirement created a significant delay in receiving plans from the gas company's engineering firm. Final plans for the gas shut off and new service were not received until November 2019. Consequently, there was insufficient time to schedule and complete the work prior to the start of the heating season. Thereafter, the owner of the impacted buildings requested work be delayed until spring 2020. This resulted in the need to extend the contract by 419 days.

The work under this change order will include the installation of 100 feet of ten-inch diameter steel sleeve crossing under the railroad tracks. This work will be performed by J.F. White since they already have a Utility Release Abatement Measures Plan filed with the Massachusetts Department of Environmental Protection for work in the former shipyard. The sleeve will be installed in an eight-foot trench with portions of the trench excavated to a depth of 10-feet to allow for the two vent lines to be installed. Following NGrid requirements the sleeve will be assembled outside the trench and the gas line installed within it. The sleeve will then be installed using a slide rail system. In addition to the sleeve installation, J.F. White will be trenching and back filling for approximately 180 linear feet to interconnect the new gas line with the existing service and relocate a four-inch

communications conduit. All backfill and compacting work will be done to ensure proper compaction is achieved for the new railroad bed.

This item was identified by MWRA staff as an unforeseen condition. MWRA staff, the Consultant and the Contractor have agreed to an amount not to exceed \$283,693.91 for this additional work with an increase to the contract term of 419 days.

CONTRACT SUMMARY:

	<u>Amount</u>	<u>Time</u>	<u>Dated</u>
Original Contract:	\$2,437,700.00	190 Days	07/10/18
CHANGE ORDERS			
Change Order 1*	\$233,356.64	0 Days	3/29/2019
Change Order 2	(\$277,515.06)	121 Days	3/29/2019
Change Order 3	<u>\$283,693.91</u>	<u>419 Days</u>	Pending
Total of Change Orders:	\$239,535.49	540 Days	
Adjusted Contract:	\$2,677,235.49	730 Days	

*Approved under delegated authority

If Change Order 3 is approved, the cumulative total value of all change orders to this contract will be \$239,535.49 or 9.8%. Work on this contract is approximately 50% complete.

BUDGET/FISCAL IMPACT:

The work under this contract is being funded through a \$500,000 grant from the Commonwealth's Industrial Freight Rail Access Program and the FRRC's available funds. Funding for this project is included in the FRRC's approved 2020 Current Expense Budget.

MBE/WBE PARTICIPATION:

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

STAFF SUMMARY

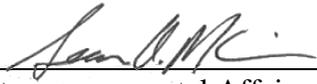
TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: May 27, 2020
SUBJECT: Wastewater Advisory Committee Contract

COMMITTEE: Wastewater Policy & Oversight

Carolyn M. Fiore, Deputy Chief Operating Officer
Wendy Leo, Senior Program Manager
Preparer/Title

INFORMATION

VOTE

Sean Navin 
Director, Intergovernmental Affairs

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to execute a contract, substantially in the form attached hereto, with the Wastewater Advisory Committee for a term of one year, from July 1, 2020 to June 30, 2021, for a total contract cost of \$75,227.00.

DISCUSSION:

In addition to the critical oversight functions of the Advisory Board, many of MWRA's policy decisions are made with advice and support from two standing citizens' advisory committees, the Wastewater Advisory Committee (WAC) and the Water Supply Citizens Advisory Committee (WSCAC). A separate staff summary presented at this meeting recommends authorization for the Executive Director to execute a similar contract with WSCAC for FY21.

The Wastewater Advisory Committee was created in 1990 to offer independent recommendations on wastewater programs and policies; it is a successor to the Facilities Planning Citizen Advisory Committee established during the planning of the new Deer Island Treatment Plant. WAC's members include citizen advocates, representatives from the Metropolitan Area Planning Council, watershed associations, the engineering and business communities, environmental law, and science and education fields. The Advisory Board has historically appointed a member as well.

The proposed FY21 WAC contract is 0.41% higher than FY20 contract. Health insurance increased by 3%, while hourly salary and other reimbursable expense items did not increase. Health insurance is budgeted at 80% reimbursement for the Executive Director only, not to exceed \$10,468, with an optional health insurance buy-out program similar to that offered to MWRA employees who do not use MWRA's health insurance benefit. Office space and support services for WAC are provided by MWRA at the Charlestown Navy Yard Headquarters. The proposed total FY21 WAC funding is \$75,227.00.

WAC's monthly meetings are geared towards engendering discussion and facilitating timely recommendations to MWRA's Board of Directors and staff on wastewater policies, projects, and program initiatives directly related to MWRA, and public concerns. Current topics of interest to WAC include operations and maintenance, combined sewer overflows, green energy, receiving water monitoring, residuals management, and wastewater/water policy and funding initiatives in Massachusetts.

WAC elects its chair and employs an Executive Director (selected by WAC's membership with the concurrence and approval of MWRA's Public Affairs Department). WAC's current chair is Karen Lachmayr and WAC's current Executive Director is Andreae Downs. Pursuant to the terms of the attached contract, WAC's members are approved by MWRA's Board of Directors.

BUDGET/FISCAL IMPACT:

Sufficient funds for the WAC contract are included in the FY21 Current Expense Budget.

ATTACHMENT:

Agreement between Massachusetts Water Resources Authority and Wastewater Advisory Committee.

AGREEMENT
BETWEEN
MASSACHUSETTS WATER RESOURCES AUTHORITY
AND
WASTEWATER ADVISORY COMMITTEE

This Agreement (“Agreement”) is by and between the Massachusetts Water Resources Authority (“Authority”), a body politic and corporate and a public instrumentality of the commonwealth, created by Chapter 372 of the Acts of 1984, with offices at Building 39, Charlestown Navy Yard, Charlestown, Massachusetts 02129 and the Wastewater Advisory Committee (“WAC”) a body created by the Authority’s Board of Directors (“Board”) (collectively “Parties”).

WHEREAS, the WAC was created to offer independent advice to the Board and to the professional staff of the Authority, regarding wastewater programs and policies directly related to the Authority;

WHEREAS, the WAC will (i) review and comment to the Authority on wastewater reports and related proposed documents, and (ii) offer independent commentary and advice on current and proposed wastewater program and policy directions to further Authority objectives;

WHEREAS, the WAC membership is designed to reflect the knowledge and interest of major affected constituencies, including engineering, construction, business/industry, planning, academic research, and environmental advocacy;

WHEREAS, the Authority desires the WAC to advise the Authority in wastewater planning, and

WHEREAS, the WAC desires to have a role advising the Authority on such matters.

NOW, THEREFORE, for the consideration of mutual promises contained herein, the Authority and WAC agree as follows:

ARTICLE 1. EFFECTIVE DATE

This Agreement shall be effective from July 1, 2020 through June 30, 2021, inclusive.

ARTICLE 2. COMPENSATION, BUDGET, PAYMENT, AND EXPENSES

2.1 The Authority shall make funds available as follows:

(a) Executive Director Salary.

In order to minimize the WAC's expenses and for the WAC's convenience, the Authority shall make direct payments to the WAC for the WAC Executive Director salary. Such payments shall not exceed \$63,134 from July 1, 2020 through June 30, 2021, inclusive. The hourly salary rate (inclusive of payroll taxes) shall be \$43.63 with annual total hours of 1,447 (average 30 hours per week for 49 weeks).

(b) Reimbursable expenses.

The Authority shall reimburse the WAC for 80% of the non-employer-sponsored health insurance for the WAC Executive Director (not to exceed \$10,468), and for stationery, payroll services expenses, bank expenses, and for mileage costs, public transportation costs, highway tolls and parking expenses for meeting attendance by WAC's Executive Director and membership, and for other miscellaneous expenses of the WAC staff approved by the Authority on a case-by-case basis. Such expenses will be reimbursed when submitted to the Public Affairs Unit. Mileage costs will be reimbursed at the prevailing Authority rate per mile.

The percentage rate for reimbursement of health insurance costs shall be changed to that of Authority staff if the Group Insurance Commission changes the rate.

Health insurance buy-out: The WAC Executive Director may elect a monetary allowance in lieu of reimbursement of health insurance costs, provided he or she has health insurance coverage through another employer-sponsored plan that meets Internal Revenue Service "minimum value" criteria, throughout that six-month period. The amount of the allowance will be \$1000 to waive family coverage or \$700 for waiving individual coverage. The WAC Executive Director is responsible for any withholding taxes on these payments with WAC being responsible for the employer share of payroll taxes.

The total annual expense reimbursement to WAC, excluding health insurance reimbursements or buy-out, shall not exceed \$1,625.00.

(c) Non-reimbursable expenses.

The following expenses are not reimbursable: meals, entertainment, room and board expenses, fines, fees, or costs assessed as a result of improper or illegal actions on the part of the member, such as parking tickets or speeding fines.

ARTICLE 3. RESPONSIBILITIES OF THE AUTHORITY AND WAC.

- (a) The WAC shall employ an Executive Director who is prohibited from being a member of the WAC while serving his or her term as a paid employee. The Authority Public Affairs Office must concur with and approve the selection of the WAC Executive Director by the WAC. The duties of the Executive Director shall be in accordance with the job description prepared by the WAC, and on file with the Authority.
- (b) The WAC shall submit weekly statements to the Authority requesting payment for expenses listed in Article 2. Such requests shall be supplemented or accompanied by time sheets, travel and expense vouchers, and by such other supporting data as may be required by the Authority.
- (c) The WAC shall maintain accounts, records, documents, and other evidence directly pertinent to performance of work under this Agreement. The parties and their duly authorized representatives shall have access to such records, documents, and other evidence for the purpose of inspection, audit, and copying.
- (d) The Authority or its duly authorized agent shall have the right at any and all reasonable times, to examine and audit WAC's records, documents and other evidence.
- (e) This Agreement is subject to the laws dealing with the expenditures of public funds, including Chapter 12A of the Massachusetts General Laws.
- (f) The parties shall agree to any reasonable modifications or changes in this contract that may be required by the Commonwealth of Massachusetts or any of its agencies.
- (g) The WAC acknowledges that the Authority is a state agency for purposes of Chapter 268A of the General Laws (the Massachusetts Conflict of Interest Law) and understands that for the purposes of that law, WAC staff and members are special state employees.
- (h) The WAC shall be responsible for compliance with all applicable provisions and requirements of the Massachusetts Open Meeting Law.

ARTICLE 4. RESPONSIBILITIES OF THE WAC STAFF.

4.1 The WAC staff shall be responsible for the following tasks:

- (a) aiding the WAC in its tasks under Article 6, educating the public, and acting as liaison with the Authority and its staff;
- (b) maintaining financial records, minutes of the WAC meetings, and other WAC records;
- (c) providing to the Authority copies of the notices for and minutes of all meetings of WAC and of all WAC correspondence relative to Authority projects and proposals as soon as such materials are available; and

(d) administering and maintaining compliance by all its members and staff with the provisions of the Massachusetts Conflict of Interest Law including, without limitation, those mandatory provisions relating to: (i) annual distribution to members and staff of the State Ethics Commission's (SEC) Summary of Law and maintenance and archiving of acknowledgements of receipt of the Summary of Law from all members and staff, and (ii) compliance by members and staff with the SEC's bi-annual educational training exercises.

ARTICLE 5. MEMBERSHIP, MEETINGS, TERMS.

5.1 the WAC membership, meetings and terms shall be as follows:

- (a) the WAC will have a maximum of twenty (20) members ("Members") approved by the Board. (Alternates or designees are prohibited);
- (b) the WAC shall meet once per month and maintain records of its meetings;
- (c) to the extent reasonable, Members will meet as a committee of the whole, without resort to subcommittees;
- (d) members will elect their chairman.
- (e) members' terms will be three (3) years; members may succeed themselves.
- (f) members unable to maintain reasonable participation in the committee's work will be expected to resign. The Authority's Public Affairs Unit, in consultation with the WAC chairman, will nominate a replacement for Board approval.

ARTICLE 6. WAC TASKS.

The WAC shall undertake the following tasks:

6.1 Wastewater Policies and Programs Review.

Advise the Authority staff and Board. Participate in review and evaluation of wastewater management plans (e.g., local limits, I/I, CSO), reports and new ideas for programs. Provide comments, information, advice, recommendations and guidance as to the direction, intent and execution of wastewater planning and policy directly related to MWRA.

6.2 Outreach and Education.

Strive to increase citizen participation and education by providing assistance in outreach to various groups regarding the Authority's wastewater programs and state wastewater resource policies. Review programs and explain plans and policies to organizations and citizens.

6.3 Working Group Representation.

When possible, provide a representative on Authority working groups, comprising MWRA staff and consultants, related to wastewater programs and policy, including the Advisory Board and its subcommittees and the Water Supply Citizens Advisory Committee.

6.4 Recommendations on Long Term Public Involvement.

Provide to the Authority staff and Board, proposals for continued effective and efficient long term public involvement in wastewater programs.

6.5 Recommendations and Discussion Documents.

The WAC staff shall be responsible for providing to the Authority's staff, Board, and others, recommendation and discussion documents on wastewater programs and policy. Documents may be in the form of minutes of WAC meetings, memoranda, letters, reports, presentations and discussions as appropriate.

ARTICLE 7. MISCELLANEOUS REQUIREMENTS.

7.1 Nondiscrimination and Equal Employment Opportunity

The WAC agrees to comply with the Authority's policy regarding non-discrimination and affirmative action.

ARTICLE 8. GENERAL PROVISIONS.

8.1 Termination of Contract.

(a) This Agreement may be terminated in writing, at any time, in whole or in part, by the Authority for its convenience or in the event of substantial failure by the WAC to fulfill its obligations, or for violation of any of the covenants and stipulations of this Agreement.

(b) If termination is effected by the Authority an equitable adjustment shall be made providing for payment to the WAC for services rendered and expenses incurred prior to the termination.

(c) No termination hereunder may be effected unless the terminating party gives the other party:

- (1) not less than forty-five days' written notice delivered by certified mail, return receipt requested, of intent to terminate; and
- (2) an opportunity for consultation with the other party prior to termination, or
- (3) by mutual agreement of the parties.

8.2 Assignability.

The WAC shall not assign or transfer this Agreement or delegate its responsibility for the performance of services under this agreement.

8.3 Integration Clause.

This Agreement integrates and supersedes all prior negotiations, representations, or agreements.

8.4 Amendment.

This Agreement may be amended only by a writing executed by each of the parties.

8.5 Severability of Provisions.

If any provision of this Agreement shall, to any extent, be held invalid or unenforceable, the remainder of this Agreement shall not be deemed affected thereby.

8.6 Massachusetts Law to Govern.

All parties to this Agreement agree that this Agreement shall be governed by and enforced in accordance with the laws of the Commonwealth of Massachusetts.

8.7 Duplicate Originals.

This Agreement may be signed in more than one identical counterpart, each of which shall be deemed to be an original hereof.

8.8 Notices.

Communications shall be deemed to have been made when mailed postage prepaid or delivered among:

Executive Director
Wastewater Advisory Committee
c/o MWRA
100 First Avenue
Charlestown Navy Yard
Boston, MA 02129

Executive Director
Massachusetts Water Resources Authority
Charlestown Navy Yard
100 First Avenue
Boston, MA 02129

Director of Public Affairs
Massachusetts Water Resources Authority
Charlestown Navy Yard
100 First Avenue
Boston, MA 02129

IN WITNESS WHEREOF, this Agreement is executed as of this ____th day of
June, 2020.

FOR; WASTEWATER ADVISORY COMMITTEE

By: _____
Karen Lachmayr, Chair

FOR: MASSACHUSETTS WATER RESOURCES AUTHORITY

By: _____
Frederick A. Laskey, Executive Director

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: May 27, 2020
SUBJECT: Grit and Screenings Hauling and Disposal
W. L. French Excavating Corporation
Contract S595

COMMITTEE: Wastewater Policy & Oversight

INFORMATION

VOTE


Michele S. Gillen
Director of Administration

David Duest, Director, Deer Island WWTP
Ethan Wenger, P.E., Deputy Director, DIWWTP
Timothy Beaulieu, Program Manager, Process Engineering
Preparer/Title


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

RECOMMENDATION:

To approve the award of Contract S595, Grit and Screenings Hauling and Disposal, to W. L. French Excavating Corporation, and to authorize the Executive Director, on behalf of the Authority, to execute said contract in the bid amount of \$4,883,114.05, for a contract term of 1,096 calendar days from the Notice to Proceed.

DISCUSSION:

Contract S595 is a replacement three-year contract to haul and dispose "minor residuals" from various MWRA wastewater facilities. Minor residuals are by-products of wastewater pre-treatment and primary/secondary treatment processes, and include grit, screenings, floatable scum and scum screenings. Grit and screenings are essentially all the solids that are captured when the largest items, such as rags, wood, plastics and other larger floating material are removed from the wastewater. These solids are removed by bar screens that filter the material. Heavier material, such as sand and gravel, is removed by settling in the grit chambers. Scum typically refers to material that floats and congeals on the surface of tanks, such as fats, oils, and greases, as well as some plastic and rubber products.

In a typical year approximately 7,000 tons of material are collected and disposed. A third of this material originates from Deer Island, and the balance from various other wastewater facilities including: Caruso Pump Station, Chelsea Creek Headworks, Chelsea Creek Screenhouse, Braintree-Weymouth Intermediate Pump Station, Columbus Park Headworks, North Dorchester Bay CSO Facility, DeLauri Pump Station, Union Park CSO Facility, Nut Island Headworks, Somerville Marginal CSO Facility, and Ward Street Headworks.



Grit collection bins at the Deer Island Treatment Plant



Grit chute and trailer at the Nut Island Headworks Facility



The grit bay, with trailers, at the Intermediate Pump Station

This Contract

Contract S595 was planned for award at the April Board of Directors Meeting, but this meeting was cancelled due to the Covid-19 pandemic. Contract S595 will replace the current three-year contract, S564, which originally expired on June 5, 2020 but was extended until July 6, 2020 under Delegated Authority, to continue required service until the successor contract could be awarded and executed.

The contract requires the vendor to pick up screenings, grit, and scum at the various MWRA facilities. Typically, this requires pickups from one to six times per month, depending on the facility. Each pickup ranges from about ten to forty tons of material. In addition, the contractor is responsible for monthly laboratory testing to confirm that the material meets regulatory requirements for landfill disposal. The contractor is responsible for finding a landfill that will accept the material.

Procurement Process

Contract S595 was advertised as a non-professional services contract in the Boston Herald, Goods and Services, El Mundo, Banner Publications, and utilizing MWRA's e-Procurement system (Event 4189-1) and bid as a non-professional services contract. On March 12, 2020, after a one-week delay to the bid deadline, two bids were received as follows:

<i>Engineer's Estimate</i>	\$4,165,690.00
W.L. French Excavating Corp.	\$4,883,114.05
R. Zoppo Corp.	\$5,612,940.00

Shortly before the scheduled bid opening, one prospective bidder informed MWRA that landfill disposal costs locally had increased by nearly 50% since the bids were prepared for the prior contract in 2017. To allow all prospective bidders time to explore alternative landfill site costs, the bid deadline was extended by one week.

This contract contained a modest number of changes to the specifications from the previous contract, particularly at the Chelsea Creek Headworks facility, where an ongoing construction project commenced in November 2016. The nature of the changes resulting from the construction will cause changes to the size of the containers used at the facility. The new containers will be essentially identical to those used at Columbus Park and Ward Street, but are smaller than those currently in use at Chelsea Creek, and may require more frequent servicing by the contractor.

W.L. French's bid is \$717,424.05 (or 17%) higher than the Engineer's Estimate. Staff estimated an average cost per ton of \$176; the actual bid amount was \$213.50. As discussed above, landfill disposal costs have increased considerably. However, W.L. French's bid for the other services provided under the contract was consistent with the staff estimate. After reviewing the bid, and after follow-up discussions with the Contractor, staff have determined that the bid price is reasonable.

The bid price is based on estimated quantities (in tons) of grit and screenings to be hauled and disposed of during the three-year contract duration. Also included are monthly laboratory analyses, a standard requirement of landfill operators. W. L. French intends to dispose of MWRA's grit and

screenings in the same landfill (located in New Hampshire) that it currently utilizes and which was used for several past contracts. The unit bid prices will be fixed for the three-year contract term with no escalation.

References were checked and found to be favorable. This award will be W. L. French's fifth MWRA contract for grit and screenings hauling including the current Contract S564, and staff have been satisfied with the company's performance. After reviewing the bid and follow-up discussions with the contractor, staff are of the opinion that the bid price is reasonable and that W. L. French understands the full nature and scope of the work under this contract, can perform the work for the bid price, and is qualified to do so. Therefore, staff recommend the award of this contract to W. L. French Excavating Corporation as the lowest responsive bidder.

BUDGET/FISCAL IMPACT:

There are sufficient funds available for the first portion of this contract in the FY21 Current Expense Budget. Appropriate funding also will be included in subsequent Proposed CEB requests for the remaining term of the contract.

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: May 27, 2020
SUBJECT: Extended Warranty, Service and Maintenance Agreement for the Process Instrumentation and Control System at the Deer Island Treatment Plant
ABB Automation, Inc.

COMMITTEE: Wastewater Policy & Oversight

 INFORMATION

 X VOTE


Michele S. Gillen

Director of Administration

David Duest, Director, Deer Island WWTP
Lisa Wong, Manager, Process Control DIWWTP
Patrick Phillips, Program Manager, Process Control
Preparer/Title



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

RECOMMENDATION:

To approve the award of a sole-source extended warranty and service contract for the Process Instrumentation and Control System at the Deer Island Treatment Plant, with ABB Automation, Inc., and authorize the Executive Director, on behalf of the Authority, to execute said contract in the amount of \$1,220,469.00, for a contract term of three years, from July 1, 2020 through June 30, 2023.

BACKGROUND:

The Deer Island Treatment Plant is controlled by a \$24 million process instrumentation and control system (PICS), which was originally procured competitively and installed under the Boston Harbor Project between 1995 and 2000. Staff estimates the current replacement value to be approximately \$45 million. That original contract was awarded to Bailey Controls Company, now known as ABB Automation, Inc. PICS provides a means for Deer Island staff to execute overall plant-wide process control as well as centralized monitoring, enabling the operation of the facility with minimum staffing. Process data from PICS is also available throughout MWRA via the MIS network and is essential for compliance reporting, plant optimization efforts, budgeting, and “event” evaluations.

MWRA’s PICS system is among the most expansive of any wastewater plant in the United States. Thousands of field instrumentation devices are used to gather process information, such as: temperatures, pressures, flows, and on/off status of remote equipment. These devices are wired back to 64 control cabinets, commonly referred to as DPUs, located at various locations around the 150-acre site. There are more than one thousand control modules of various types used in these DPUs to gather inputs from process sensors and to send control signals back to Operations resulting in more than 30,000 input/output points in the PICS system.

All of the information gathered from the process equipment is sent to primary and back-up control rooms and is displayed through a human machine interface (HMI) supplied by Emerson Process Management Power & Water Solutions, Inc. The plant operators use this HMI as the main tool for monitoring and control of the process at both the treatment plant and the Thermal/Power Plant. The HMI is the direct interface between the operations staff and the ABB portion of the PICS system. It gathers information from all the processes and presents that information to staff through control graphics. The HMI includes hardware (computer servers, operator workstations, and security appliances), software, and control graphics.

The HMI has an estimated value of just under 4% of the total value of the entire PICS system in today's dollars. This proposed ABB support contract will provide service and parts for the remaining 96% of the control system. Staff anticipates that continued routine support and evolution of the "control" portion of the system will keep it viable for the foreseeable future. Items in the proposed contract have been included specifically to keep this system up-to-date and maximize its useful life. The HMI is supported by a separate sole-source contract provided by Emerson.

Servicing the PICS system is critical to its reliable operation. MWRA staff performs all "first response" service in a fully functional configuration, responding to needs and requests from Operations staff, and implementing process automation changes driven by changing operational strategies.

DISCUSSION:

For the past twenty years, PICS has been serviced under a sole-source contract with the original equipment manufacturer ABB Automation, Inc., formerly, Bailey Controls Company. The current contract in the amount of \$1,095,164.00, will expire on June 30, 2020. The new contract amount is \$1,220,469.00, which represents an 11% increase from the current three-year contract price, or roughly 3.6% increase year over year for the 3-year contract.

Due to the magnitude of the entire PICS system and its critical role in the overall operation of Deer Island, staff is of the opinion that it remains in MWRA's best interest to continue to contract directly with the original equipment manufacturer to maintain the extended warranty and to provide service of this critical system.

Staff has thoroughly researched the sole-source nature of this procurement. The ABB equipment is of proprietary design and manufacture - there are no third-party vendors of new ABB replacement parts. There are suppliers of reconditioned parts and there are vendors who can provide preventive maintenance on any electronic control equipment. These vendors, particularly in the parts area, tend to rely on recently retired or former vendor personnel to troubleshoot or provide services. Staff is of the opinion that the long-term consistency of this type of support is unreliable. Staff's experience has been that the most reliable, consistent and in-depth support can be obtained only from the manufacturer of the specific control system.

Staff recommend that MWRA again contract with the original equipment vendor to provide the extended warranty and the ongoing service of the PICS system. Combined with the efforts of MWRA staff, this will ensure an uninterrupted supply of replacement parts and up-to-date, system-wide technical information and documentation, and will minimize down-time by ensuring the committed availability of an extensive and qualified field engineering staff necessary for optimum system-wide performance.

ABB Automation has provided excellent service during all past and current contracts. The vendor's workmanship has been excellent and ABB's technical support has been responsive in all ways to MWRA's needs. ABB's parts replacement has been timely and professional.

Contract Components

The contract scope and cost elements can be broken down into several categories as follows:

Extended Warranty Service and Parts Inventory \$607,404

A major element of the contract is the extended warranty program for the entire PICS system. Under the extended warranty program, ABB will replace any hardware component that fails up to a maximum total of \$900,000. These parts are supplied at a substantial discount, roughly 32.5% off list price for original proprietary parts. The contract now includes a parts inventory, which allows the most critical parts to be kept in ABB's custody on-site so that warranties do not expire.

On-site Field Service & On-Site Support Services \$510,255

The installed PICS hardware is running well and is in excellent condition because of current service efforts which include: cleaning, changing filters, replacing corrosion inhibitors, checking voltage levels and indicator lights. ABB will provide up to 600 on-site field services hours per year to perform these control system services as well as other duties as assigned.

Included under this agreement is up to 36 days (96 hours per year, taken from the 600 hours) of Field Service Engineering and Afterhours support. Staff has utilized these services for additional engineering / programming support for PICS projects and to supplement MWRA staff in the Thermal/Power Plant (where continuous operation is critical). This function also provides vendor back-up to MWRA staff in the event that severe problems are encountered anywhere on the island.

Internet Subscription Service, Telephone Consultation Service \$54,033

This has proven to be a valued function by which the vendor provides e-mail notices of new software and firmware updates, and notices of newly identified problems and software bugs, pre-release fixes and workarounds for these problems between major releases. In addition, this function provides MWRA staff with both Internet and telephone access to ABB technical support staff 24 hours per day, 365 days per year – a critically important way to receive technical support with problems that may arise.

Software Maintenance Program \$48,777

The software maintenance program is necessary to keep the system engineering software and module firmware up-to-date so that staff can take advantage of improvements and fixes to software implemented by the vendor.

BUDGET/FISCAL IMPACT:

There are sufficient funds available for the first portion of this contract in the FY21 Current Expense Budget. Appropriate funding will be included in subsequent Proposed CEB requests for the remaining term of the contract.

MBE/WBE PARTICIPATION:

ABB Automation, Inc. is not a certified Minority- or Women-owned business.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: May 27, 2020
SUBJECT: 2019 Annual Water Quality Report (Consumer Confidence Report)

COMMITTEE: Water Policy & Oversight

INFORMATION
 VOTE

Beverly Anderson, Project Manager, Public Health
Ria Convery, Special Asst. to Executive Director
Stephen Estes-Smargiassi, Director, Planning & Sustainability
Preparer/Title


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

RECOMMENDATION:

For information only. The 2019 Annual Water Quality Report will be mailed to every household in MWRA's service area between June 1 and June 27, 2020 to meet EPA's Consumer Confidence Report Rule annual deadline of July 1. This staff summary highlights the report's key findings and features. Electronic copies will be provided to Board members.

DISCUSSION:

EPA's Consumer Confidence Report (CCR) program has been an important national initiative that has promoted better information and education for consumers about their drinking water. It has been an integral part of MWRA's drinking water communication program since 1999, along with monthly on-line water quality reports and other web-based information.

MWRA staff have again produced three separate versions of the CCR: one for each of the fully-supplied communities in metropolitan Boston and MetroWest, one for each of the partially-supplied communities in metropolitan Boston and MetroWest, and one for the three Chicopee Valley Aqueduct communities. A Spanish translation and a large print version are also produced. All communities in metropolitan Boston and MetroWest that use MWRA's CCR again took the opportunity to provide a community-specific letter to report additional local information.¹

As in prior years, the 2019 CCR emphasizes MWRA's excellent source water, state of the art treatment, and test results from the reservoir to the tap.

¹ The partially-supplied communities of Dedham-Westwood, Stoughton, and Wellesley send their own CCR geared toward local source water quality, with additional information on MWRA water provided in their reports by MWRA staff. All other partially-supplied communities use the MWRA report.

The Executive Director's letter and text within the report provide an update on MWRA's COVID response, and reminds residents that COVID is not transmitted through drinking water. Also, the report again has two pages concentrating on lead in drinking water. These pages highlight lead service line information, how to find out if you have a lead service line, and how to get it replaced. These pages also emphasize how to get your water tested for lead, steps customers can take to make sure there is no lead in their tap water, and a brief summary of the school lead testing program and where to find more information.

The report is printed on paper which is recycled and certified by the Forest Stewardship Council and Sustainable Forestry Initiative, with appropriate logos included on the cover.

Consistent with past efforts, MWRA will conduct an outreach effort to increase awareness of the CCR, including e-mailing copies to local officials, health care professionals, and other interested parties, and sending press releases to local weekly publications and all regional newspapers. It will also be promoted through social media. Information and pictures of the CCR, with links to MWRA's website, will be provided to community web pages, and local public health and environmental organizations.

Mailing of the CCR will begin on May 30, 2020 and the reports should be arriving in customers' mailboxes through the last week of June. Certification of the CCR to DEP is due by July 1, 2020. MWRA provides certification materials to DEP on behalf of each community.

MWRA is using the flexibility offered by EPA under its eCCR guidance to include web links to additional, more comprehensive information on unregulated contaminants, as well as lead, PFAS, and *Giardia* and *Cryptosporidium*. Also, one partially-served community included a web-link in its printed letter to a longer on-line letter with additional information about local issues

BUDGET/FISCAL IMPACT:

The FY20 Current Expense Budget includes sufficient funds for printing and mailhouse services, and postage. Production and graphic design are performed in-house by MWRA staff. The cost of printing and mailing almost 900,000 copies of the 2019 CCR is approximately \$0.28 per copy.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: May 27, 2020
SUBJECT: Local Water System Assistance Program – Approval of Water Loan Program Guidelines Revision for City of Quincy

COMMITTEE: Water Policy & Oversight

INFORMATION
 VOTE

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


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

On June 28, 2017, the Board approved \$292 million in the FY18 Capital Improvement Program to fund Phase 3 of the Local Water System Assistance Program to continue to provide ten-year interest-free loans to water communities for local water projects. Quincy's total allocation under the Phase 3 water loan program is \$14,252,000 for the period FY18 through FY30. Quincy's annual allocation is \$1,425,200 or 10% of the City's total allocation. This staff summary recommends waiving the annual allocation restriction to allow Quincy to borrow three years of its annual water loan allocation (\$4,275,600) early. Quincy has made this request to MWRA to move ahead with a large water system upgrade project that is planned to begin spring 2020 to improve water quality. The Board has approved similar exemptions to the water loan Program Guidelines to allow Reading (January 16, 2013); Winthrop (June 4, 2014 and July 19, 2017); and Peabody (February 21, 2018) to access their water loan allocations early.

RECOMMENDATION:

To approve a one-time exemption to the Phase 3 Program Guidelines for the Local Water System Assistance Program to waive the annual allocation restriction for the City of Quincy to allow the City to borrow up to \$4,275,600 for a water system loan as early as May 2020. The Phase 3 early borrowing representing three years: year 4 (FY21); year 9 (FY26); and year 10 (FY27). The loan distribution is contingent upon a Quincy City Council water bond authorization to meet this request.

DISCUSSION:

Under MWRA's Phase 3 Local Water System Assistance Program (LWSAP), Quincy has a total interest-free loan allocation of \$14,252,000. However, the Program Guidelines restrict each community's annual allocation to the largest 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.

FY20 is the third year of the Phase 3 LWSAP. Through three years (FY18-FY20), Quincy has applied for and been distributed all of the \$4,275,600 representing the first three years of annual allocations. An additional \$1,425,200 (10% of the total allocation) becomes available each fiscal year up to the \$14,252,000 (ten year) total.

The Phase 3 LWSAP provides \$292 million in interest-free loans to 45 member water communities¹ for local water system improvement projects during FY18-30. Community loans are repaid to MWRA over a 10-year period. The Phase 3 and remaining Phase 2 LWSAP loan allocations to each member water community are listed on Attachment 1. The Phase 3 LWSAP follows the \$210 million Phase 2 and \$222 million Phase 1 water loan programs. The water loan Program Guidelines require that Phase 2 funds be used prior to Phase 3 funds and include an annual allocation restriction, as follows:

Distribution of Phase 2 LWSAP funds are authorized for FY11 through FY23. As of FY18, all undistributed Phase 2 LWSAP funds are allocated for distribution. Each community's Phase 2 funds will be distributed prior to their Phase 3 funds. Distribution of Phase 3 LWSAP funds are authorized for FY18 through FY30. Each community's Phase 3 annual allocation is restricted to the largest of (1) 10 percent of its total Phase 3 allocation or (2) \$500,000. If not utilized in a given year, annual Phase 3 allocations roll-over and accumulate up to the community's total Phase 3 allocation. The annual allocation restrictions are intended to limit MWRA loan distributions annually.

Quincy has been working to improve its local water distribution system. The City has previously utilized all \$26,340,600 under MWRA's Phase 1 and 2 water loan programs, as well as \$4,275,600 under Phase 3, to construct 23 separate water system improvement projects from 2001 through 2020. Quincy has requested early distribution of three years of annual allocation under the Phase 3 LWSAP, see Attachment 2 – Letter Request from Quincy. Board approval of the recommended one-time exemption to the Program Guideline annual allocation restriction will allow staff to work with Quincy representatives to rapidly provide a 10-year, interest-free water loan to fund the City's next priority water main replacement project. Quincy's project will replace 1890-1900s era unlined cast-iron water mains with cement-lined ductile iron pipe. The project will improve water quality delivered to local Quincy customers. The Quincy City Council has already approved the borrowing of Quincy's entire \$14,252,000 Phase 3 LWSAP loan allocation.

On March 18, 2020, a Staff Summary presented the Local Water System Assistance Program Annual Update to the Board. MWRA's goal in providing financial assistance to member communities is to improve local water systems to help maintain high quality water as it passes from MWRA's facilities through local pipelines to customers' taps. Continued improvement of local water systems is a critical element of MWRA's Integrated Water Supply Improvement Program. Older water mains, particularly those constructed of unlined, cast-iron pipe, need to be

¹ MWRA has a total of 50 water communities (with Dedham/Westwood Water District counted as one), of which 45 are allocated loan funds under the Local Water System Assistance Program. The five ineligible water communities have special case consideration; these include: Clinton, Leominster (emergency only), and Worcester (emergency only), that receive untreated water from the Wachusett Reservoir; Cambridge, that receives water on an emergency-only basis; and Lynn, that receives water for the GE plant only.

replaced or cleaned and lined to prevent tuberculation (rust build-up as depicted in the photos below), loss of disinfectant residual, and potential bacteria growth.

Sample unlined cast-iron tuberculated water mains



BUDGET/FISCAL IMPACT:

The FY20 CIP includes an overall net budget of zero dollars for the Local Water System Assistance 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. From FY00 through February 2020, MWRA has distributed a total of \$429 million in 10-year, interest-free water loans to member communities.

For the FY20 CIP budget, staff projected total LWSAP and Lead Loan Program water loans at \$34 million. Including the recommended early loan funding to Quincy, total water and lead loans for FY20 are estimated at \$33 million, thus the distribution of an early loan to Quincy will not have a negative impact on the FY20 CIP budget. The accelerated distribution of water loans will result in accelerated repayments and a net offset over time. As community loans are repaid, the funds are deposited into MWRA’s construction fund. Funds for this community loan program are secured through MWRA’s tax exempt commercial paper. This loan to Quincy is eligible for the community loan deferral program that was recently approved by the Board.

MBE/WBE PARTICIPATION:

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

ATTACHMENTS:

- Attachment 1 - LWSAP Phase 2 and 3 Allocation and Funding Utilization by Community
- Attachment 2 - Letter Request from Quincy

ATTACHMENT 1
MWRA LOCAL WATER SYSTEM ASSISTANCE PROGRAM
ALLOCATION AND FUND UTILIZATION BY COMMUNITY
THROUGH MARCH 2020

Community	Community Total Phase 2 Allocation	Phase 2 Funds Distributed thru March 2020	Total Remaining Phase 2 Funds	Community Total Phase 3 Allocation	Community Phase 3 Annual Allocation	Phase 3 Allocation To Date (Year-3)	Phase 3 Funds Distributed thru March 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	\$2,606,100	\$0	\$1,500,000	\$3,131,100
Bedford *	\$2,418,000	\$2,418,000	\$0	\$3,649,000	\$500,000	\$1,500,000	\$0	\$1,500,000	\$1,500,000
Belmont	\$3,477,000	\$3,477,000	\$0	\$3,852,000	\$500,000	\$1,500,000	\$6,420,098	\$0	\$9,416,002
Boston	\$38,754,000	\$38,754,000	\$0	\$52,787,000	\$5,278,700	\$15,836,100	\$0	\$0	\$4,266,000
Brookline	\$3,426,000	\$660,000	\$2,766,000	\$4,585,000	\$500,000	\$1,500,000	\$0	\$1,500,000	\$2,716,000
Canton *	\$3,216,000	\$3,216,000	\$1,216,000	\$2,971,000	\$500,000	\$1,500,000	\$0	\$1,500,000	\$0
Chelsea	\$3,814,000	\$3,814,000	\$0	\$5,039,000	\$503,900	\$1,511,700	\$1,511,700	\$0	\$849,000
Dedham/Westwood *	\$503,000	\$503,000	\$0	\$849,000	\$500,000	\$849,000	\$0	\$849,000	\$899,100
Everett	\$4,672,000	\$4,672,000	\$0	\$6,298,000	\$629,800	\$1,889,400	\$990,300	\$899,100	\$0
Frammingham	\$7,357,000	\$7,357,000	\$0	\$9,003,000	\$900,300	\$2,700,900	\$2,700,900	\$0	\$3,378,985
Lexington	\$3,024,000	\$1,145,015	\$1,878,985	\$3,777,000	\$500,000	\$1,500,000	\$0	\$1,500,000	\$1,749,200
Lynnfield/Water Dkt.	\$1,396,000	\$1,146,800	\$249,200	\$1,678,000	\$500,000	\$1,500,000	\$0	\$1,500,000	\$5,824,100
Malden	\$7,272,000	\$4,629,400	\$2,642,600	\$10,605,000	\$1,060,500	\$3,181,500	\$0	\$3,181,500	\$2,133,200
Marblehead	\$1,917,000	\$2,200,000	\$2,037,000	\$5,112,000	\$511,200	\$1,533,600	\$0	\$1,533,600	\$1,885,500
Marlborough *	\$1,917,000	\$1,283,800	\$633,200	\$3,312,000	\$500,000	\$1,500,000	\$0	\$1,500,000	\$2,413,100
Medford	\$6,959,000	\$2,075,000	\$4,884,000	\$10,800,000	\$1,080,000	\$3,240,000	\$0	\$3,240,000	\$1,627,900
Melrose	\$3,988,000	\$3,988,000	\$0	\$6,865,000	\$686,500	\$2,059,500	\$1,871,000	\$1,885,500	\$188,500
Milton	\$4,123,000	\$3,500,000	\$623,000	\$5,967,000	\$596,700	\$1,790,100	\$0	\$1,790,100	\$7,611,300
Nahant	\$1,490,000	\$1,142,100	\$347,900	\$1,835,000	\$500,000	\$1,500,000	\$0	\$1,500,000	\$1,162,735
Needham *	\$794,000	\$794,000	\$0	\$1,894,000	\$500,000	\$1,500,000	\$337,265	\$0	\$1,511,947
Northborough *	\$1,048,000	\$986,053	\$61,947	\$1,450,000	\$500,000	\$1,450,000	\$0	\$1,450,000	\$0
Norwood	\$4,395,000	\$4,395,000	\$0	\$6,296,000	\$629,600	\$1,888,800	\$1,888,800	\$0	\$0
Peabody *	\$1,089,000	\$1,089,000	\$0	\$2,756,000	N/A +	\$2,756,000	\$2,756,000	\$0	\$0
Quincy	\$10,305,000	\$10,505,000	\$200,000	\$14,252,000	\$1,425,200	\$4,275,600	\$4,275,600	\$0	\$1,521,900
Reading	\$4,146,000	\$4,146,000	\$0	\$5,073,000	\$507,300	\$1,521,900	\$0	\$1,521,900	\$578,500
Revere	\$5,034,000	\$5,034,000	\$0	\$5,315,000	\$531,500	\$1,594,500	\$1,016,000	\$578,500	\$5,292,406
Saugus	\$6,621,000	\$4,234,994	\$2,386,006	\$9,688,000	\$968,800	\$2,906,400	\$0	\$2,906,400	\$4,758,066
Somerville	\$7,419,000	\$5,898,234	\$1,520,766	\$10,791,000	\$1,079,100	\$3,237,300	\$0	\$3,237,300	\$1,500,000
Southborough	\$1,512,000	\$0	\$1,512,000	\$1,920,000	\$500,000	\$1,500,000	\$0	\$1,500,000	\$1,500,000
Stoughton	\$2,339,000	\$2,339,000	\$0	\$2,742,000	\$500,000	\$1,500,000	\$0	\$1,500,000	\$1,500,000
Stoughton*	\$2,506,000	\$2,506,000	\$0	\$3,547,000	\$500,000	\$1,500,000	\$0	\$1,500,000	\$1,388,332
Swampscott	\$3,755,000	\$3,755,000	\$0	\$5,276,000	\$527,600	\$1,582,800	\$194,468	\$1,388,332	\$500,000
Wakefield *	\$2,325,000	\$2,325,000	\$0	\$3,356,000	\$500,000	\$1,500,000	\$1,000,000	\$500,000	\$9,243,999
Waltham	\$10,293,000	\$5,520,201	\$4,772,799	\$14,904,000	\$1,490,400	\$4,471,200	\$0	\$4,471,200	\$3,608,431
Watertown	\$2,978,000	\$2,978,000	\$0	\$3,745,000	\$500,000	\$1,500,000	\$1,000,000	\$500,000	\$1,062,003
Wellesley *	\$2,350,000	\$241,569	\$2,108,431	\$3,268,000	\$500,000	\$1,500,000	\$0	\$1,500,000	\$1,306,000
Weston	\$1,625,000	\$1,625,000	\$0	\$2,295,000	\$500,000	\$1,500,000	\$437,997	\$1,062,003	\$1,501,000
Wilmington *	\$611,000	\$611,000	\$0	\$1,306,000	\$500,000	\$1,306,000	\$0	\$1,306,000	\$0
Winchester *	\$882,000	\$775,000	\$107,000	\$1,394,000	\$500,000	\$1,394,000	\$0	\$1,394,000	\$0
Winthrop	\$3,312,000	\$3,312,000	\$0	\$4,119,000	N/A +	\$4,119,000	\$4,119,000	\$0	\$1,500,000
Woburn *	\$2,591,000	\$2,591,000	\$0	\$3,905,000	\$500,000	\$1,500,000	\$0	\$1,500,000	\$10,065,406
SUBTOTAL	\$200,000,000	\$168,367,966	\$31,632,034	\$278,000,000	\$31,859,500	\$101,452,500	\$32,019,128	\$69,433,372	\$110,924,606
Chicopee	\$7,153,000	\$4,035,000	\$3,118,000	\$9,774,000	\$977,400	\$2,932,200	\$0	\$2,932,200	\$1,000,000
South Hadley F.D. I	\$1,538,000	\$1,538,000	\$0	\$2,026,000	\$500,000	\$1,500,000	\$500,000	\$1,000,000	\$2,809,000
Wilbraham	\$1,309,000	\$0	\$1,309,000	\$2,200,000	\$500,000	\$1,500,000	\$0	\$1,500,000	\$9,859,200
SUBTOTAL	\$10,000,000	\$5,573,000	\$4,427,000	\$14,000,000	\$1,977,400	\$5,932,200	\$500,000	\$5,432,200	\$110,924,606
TOTAL	\$210,000,000	\$173,940,966	\$36,059,034	\$292,000,000	\$33,836,900	\$107,384,700	\$32,519,128	\$74,865,572	\$110,924,606

* Partially Served Communities
+ Exempt per Board Approval



ATTACHMENT 2
CITY OF QUINCY, MASSACHUSETTS
Department of Public Works

Thomas P. Koch
Mayor

Alfred J. Grazioso
Commissioner



February 19, 2020

Mr. Federick A. Laskey
Executive Director
Massachusetts Water Resources Authority
Charlestown Navy Yard
100 First Avenue, Building 39
Boston, Massachusetts 02129

Re: MWRA LWSAP Phase 3 Financial Assistance
Request for Accelerated distribution of Years 9 and 10

Dear Executive Director Laskey:

The City of Quincy is seeking the Authority's consideration and approval for the accelerated distribution of LWSAP phase 3 funding. Specifically, the City is requesting that tranches 9 and 10 of LWSAP Phase 3 to be distributed in conjunction with FY21's year 3 tranche (in total: \$4,275,600) in May of 2020. The City will use the additional funding commencing in the spring of 2020 to replace 25,527 linear feet or 4.83 miles of unlined cast iron water main that was installed between 1890 and the early 1900's on 25 streets. This accelerated borrowing will allow the City to continue its aggressive water quality improvement plan by replacing aging infrastructure.

The Quincy City Council has already approved the borrowing of the full \$14,252,000.00 for the City's Phase III allocation of LWSAP on June 19, 2018 (approved Council Order attached with the request).

Thank you for your consideration. If you have any questions please do not hesitate to call me at 617.376.1959.

Sincerely,

Alfred J. Grazioso
Commissioner of Public Work

55 Sea Street, Quincy, MA 02169-2572
Telephone: (617) 376-1959 FAX: (617) 376-1969

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: May 27, 2020
SUBJECT: Water Supply Citizens Advisory Committee Contract

COMMITTEE: Water Policy & Oversight

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

 INFORMATION

 X VOTE


Sean Navin, Director
Intergovernmental Affairs

RECOMMENDATION:

To authorize the Executive Director, on behalf of the Authority, to execute a contract, substantially in the form attached hereto, with the Water Supply Citizens Advisory Committee for a one-year period beginning July 1, 2020 to June 30, 2021, with a total contract cost of \$110,490.00.

DISCUSSION:

In addition to the critical oversight functions of the Advisory Board, many of MWRA's policy decisions are made with advice and support from two standing citizens' advisory committees, the Water Supply Citizens Advisory Committee (WSCAC) and the Wastewater Advisory Committee (WAC). A separate staff summary presented at this meeting recommends authorization for the Executive Director to execute a similar contract with WAC for FY21.

WSCAC originated in 1978 when its predecessor committee, the Northfield Citizens Advisory Committee, was formed at the direction of the Secretary of the Executive Office of Environmental Affairs. WSCAC has received direct funding from MWRA since MWRA's formation in 1984.

The proposed FY21 WSCAC contract is 0.28% greater than the FY20 contract. Health insurance increased 3%, while hourly salaries and other reimbursable expense items did not increase. Health insurance is budgeted at 80% reimbursement for the Executive Director only, not to exceed \$10,468, with an optional health insurance buy-out program similar to that offered to MWRA employees who do not use MWRA's health insurance benefit. The proposed total FY21 WSCAC funding is \$110,490.00.

Current topics of interest to WSCAC include system redundancy, energy efficiency and carbon footprint, water system expansion issues, changing drinking water regulations, the Water System Master Plan, and watershed management and protection issues. The committee currently has 15 active members. WSCAC continues to work to identify additional members in categories which are not well represented on the committee.

WSCAC's office is located at Quabbin Reservoir in a Department of Conservation and Recreation (DCR) building, and most meetings are held at MWRA's Southborough facility. WSCAC's Executive Director is Lexi Dewey (selected by WSCAC's Executive Committee), and the current chairman is Michael Baron, elected from among the members.

BUDGET/FISCAL IMPACT:

Sufficient funds for the WSCAC contract are included in the FY21 Current Expense Budget.

ATTACHMENT:

Agreement between Massachusetts Water Resources Authority and Water Supply Citizens Advisory Committee

AGREEMENT
BETWEEN
MASSACHUSETTS WATER RESOURCES AUTHORITY
AND
WATER SUPPLY CITIZENS ADVISORY COMMITTEE

This Agreement (“Agreement”) is by and between the Massachusetts Water Resources Authority (“Authority”), a body politic and corporate and a public instrumentality of the commonwealth created by Chapter 372 of the Acts of 1984 with offices at Building 39 First Avenue, Charlestown Navy Yard, Charlestown, Massachusetts 02129 and the Water Supply Citizens Advisory Committee (“WSCAC”) an organization initially created under the Massachusetts Environmental Policy Act (“MEPA”) to ensure public representation and participation in Authority water supply activities, with offices currently at 485 Ware Road, Belchertown, MA 01007 (collectively “Parties”).

WHEREAS, the Authority is required to meet the water needs of its communities;

WHEREAS, the Authority desires WSCAC to continue to advise in water supply planning and programming; and

WHEREAS, WSCAC desires to have a continued role advising the Authority;

NOW, THEREFORE, for the consideration of mutual promises contained herein, the Authority and WSCAC agree as follows:

Article 1. Effective Date.

This Agreement shall be effective from July 1, 2020 through June 30, 2021, inclusive.

Article 2. Compensation, Budget, Payment, and Expenses.

2.1 The Authority shall make funds available as follows:

(a) Salaries and Duties.

Director. An Executive Director shall be chosen by WSCAC members at a salary not to exceed \$72,688 for the year commencing on July 1, 2020 through June 30, 2021, inclusive. The hourly salary rate (inclusive of payroll taxes) shall be \$43.63 with annual total hours of 1,666 (average 34 hours per week for 49 weeks). The duties of the Executive Director shall be in accordance with the job description prepared by the Executive Committee of WSCAC and on file with the Authority.

Administrative Assistant. A part-time Administrative Assistant shall be chosen by the WSCAC Executive Director in consultation with the Executive Committee of WSCAC at a salary not to exceed \$15,250 for the year commencing on July 1, 2020 through June 30, 2021, inclusive. The hourly salary rate shall be \$22.69 (inclusive of payroll taxes) with annual total hours of 672 (average 14 hours per week for 48 weeks). The duties of the Administrative Assistant shall be in accordance with the job description prepared by the Executive Committee of WSCAC and on file with the Authority.

(b) Reimbursable Expenses.

- (1) The Authority shall reimburse the WSCAC for 80% of the non-employer-sponsored health insurance for the WSCAC Executive Director (not to exceed \$10,468). The percentage rate for reimbursement of health insurance costs shall be changed to that of Authority staff if the Group Insurance Commission changes the rate.
- (2) Health insurance buy-out: The WSCAC Executive Director may elect a monetary allowance in lieu of reimbursement of health insurance costs, provided he or she has health insurance coverage through another employer-sponsored plan that meets Internal Revenue Service “minimum value” criteria, throughout that six-month period. The amount of the allowance will be \$1000 to waive family coverage or \$700 for waiving individual coverage. The WSCAC Executive Director is responsible for any withholding taxes on these payments with WSCAC being responsible for the employer share of payroll taxes.
- (3) Mileage costs, public transportation costs, highway tolls and parking expenses incurred by WSCAC staff and members from attendance at WSCAC meetings, pertinent conferences and seminars, or while performing other functions directly related to its scope of services. Mileage costs will be reimbursed at the prevailing Authority rate per mile.
- (4) Office supplies (such as letterhead, envelopes, pencils, paper clips), postage, office telephone and internet access, meeting expenses, and general administrative and office expenses;
- (5) The purchase or rental by WSCAC staff of books, films, cassettes, tapes, etc., if specifically approved by the Authority in advance, except that single copies of individual publications, books, and other written documents may be purchased for the WSCAC library use without prior approval, provided that the cost per item does not exceed \$200. All materials purchased under this section shall be considered property of the Authority.
- (6) Other miscellaneous expenses of the WSCAC staff approved by the Authority on a case-by-case basis. When possible, approval of the Authority should be received in advance of incurring such expenditures.

The Authority may advance up to \$750 to WSCAC, such advance to be applied to the payment of Miscellaneous Expenses as defined herein and as approved and budgeted under the terms of this Agreement. Payments made from an advance shall be accounted for in the same manner as all other Miscellaneous Expense payments. Prior to the expiration of this Agreement, any outstanding balance on an advance shall be applied against amounts due WSCAC.

The annual total reimbursement to WSCAC for annual and miscellaneous expenses combined shall not exceed \$22,552 from July 1, 2020 through June 30, 2021, inclusive.

(c) Non-reimbursable expenses.

The following expenses are not reimbursable: meals, entertainment, room and board expenses, fines, fees, or costs assessed as a result of improper or illegal actions on the part of the member, such as parking tickets or speeding fines.

ARTICLE 3. RESPONSIBILITIES OF THE AUTHORITY AND WSCAC.

(a) WSCAC shall employ an Executive Director, who is prohibited from being a member of WSCAC while serving his or her term as a paid employee.

(b) WSCAC shall, whenever applicable, take all necessary steps to receive an exemption from the Massachusetts Sales and Use taxes for materials, printing, and equipment purchased by WSCAC on behalf of the Authority.

(c) WSCAC shall submit monthly or periodic statements to the Authority requesting payment for salary, and for annual and miscellaneous expenses listed in Article 2. Such requests shall be supplemented or accompanied by time sheets, travel and expense vouchers, and by such other supporting data as may be required by the Authority.

(d) WSCAC shall maintain accounts, records, documents, and other evidence directly pertinent to performance of work under this Agreement. The Parties and their duly authorized representatives shall have access to such records, documents, and other evidence for the purpose of inspection, audit, and copying.

(e) The Authority or its duly authorized agent shall have the right at any and all reasonable times, to examine and audit WSCAC's records, documents and other evidence.

(f) This Agreement is subject to the laws dealing with the expenditures of public funds, including Chapter 12A of the Massachusetts General Laws.

(g) The Parties agree to consent to any reasonable modifications or changes in this contract that may be required by the Commonwealth of Massachusetts or any of its agencies.

(h) WSCAC acknowledges that the Authority is a state agency for purpose of Chapter 268A of the General Laws (the Massachusetts Conflict of Interest Law) and understands that for the purposes of that law, WSCAC staff and members are special state employees.

- (i) WSCAC shall be responsible for compliance with all applicable provisions and requirements of the Massachusetts Open Meeting Law.

ARTICLE 4. RESPONSIBILITIES OF THE WSCAC STAFF.

4.1 The WSCAC staff shall be responsible for the following tasks:

- (a) aiding WSCAC in its tasks under Article 6, managing the WSCAC office, educating the public, and acting as liaison with the Authority and its staff;
- (b) preparing monthly progress reports for submission to the WSCAC Executive Committee, the WSCAC members, and the Authority;
- (c) maintaining financial records, minutes of the WSCAC meetings, and other WSCAC records;
- (d) assuring that at least every other meeting be held in Eastern Massachusetts at a location to be jointly agreed upon by WSCAC and the Authority where Authority attendance is expected.
- (e) providing to the Authority copies of the notices for and minutes of all meetings of WSCAC and of all the WSCAC correspondence as soon as such materials are available.
- (f) administering and maintaining compliance by all its members and staff with the provisions of the Massachusetts Conflict of Interest Law including, without limitation, those mandatory provisions relating to: (i) annual distribution to members and staff of the State Ethics Commission's (SEC) Summary of Law and maintenance and archiving of acknowledgements of receipt of the Summary of Law from all members and staff, and (ii) compliance by members and staff with the SEC's bi-annual educational training exercises.

ARTICLE 5. MEMBERSHIP

5.1 Membership of WSCAC

- (a) Membership of WSCAC shall maintain parity between those individuals representing the interests of the communities listed in section 8(d) of the Authority's Enabling Act, c. 372 of the Acts of 1984, ("User Representatives") and those individuals representing the interests of the watershed communities ("Donor Representatives") and those individuals representing the interests of statewide or other appropriate interests as mutually agreed upon by WSCAC and the MWRA ("Other Representatives").
- (b) In order to maintain WSCAC membership status, members must be active participants, as defined in the WSCAC by-laws.

5.2 The appointment of WSCAC members shall be by joint designation by WSCAC and the MWRA and shall have a goal of achieving at least 10% minority representation on WSCAC.

ARTICLE 6. WSCAC TASKS.

WSCAC shall undertake the following tasks:

6.1 Water Supply Programs Review.

Advise the Authority staff and Board in the performance of their duties relating to water supply planning and policies. Participate in the design, review and evaluation of research, reports and new ideas for programs. Provide comments, information, advice, recommendations and guidance as to the direction, intent and execution of water planning and policy development.

6.2 Outreach and Education.

Assure informed public input by providing assistance in outreach to various groups regarding the Authority's water supply programs and policies, and state water resources legislation and policies. Review programs with and explain plans and policies to organizations and citizens, including the scheduling of workshops, meetings and conferences. Provide comments and assistance on legislation of importance to the Authority.

6.3 Working Group Representation.

When requested, provide a representative on Authority working groups, comprising MWRA staff and consultants, related to water supply planning and policy development, including the Advisory Board and its subcommittees and the Wastewater Advisory Committee.

6.4 Recommendations on Long Term Public Involvement.

Provide to the Authority staff and Board, proposals for continued effective and efficient long-term public involvement in water programs.

6.5 Recommendations and Discussion Documents.

The WSCAC staff shall be responsible for providing to the Authority's staff, Board, and others, recommendation and discussion documents on the subjects of the above tasks. Documents may be in the form of minutes of WSCAC meetings, memoranda, letters, reports, presentations and discussions as appropriate.

ARTICLE 7. MISCELLANEOUS REQUIREMENTS.

7.1 Nondiscrimination and Equal Employment Opportunity.

(a) WSCAC agrees to comply with all Federal and State laws pertaining to Civil Rights and Equal Opportunity, including executive orders and rules and regulations regarding employment,

demotion, transfers, recruitment, layoffs or termination, rates of pay or other compensation and training, including apprenticeships. With regard to WSCAC membership, WSCAC agrees to affirmatively solicit minority representation.

(b) WSCAC agrees to comply with the Authority's policy regarding non-discrimination and affirmative action.

ARTICLE 8. GENERAL PROVISIONS.

8.1 Termination of Contract.

(a) This Agreement may be terminated in writing, at any time, in whole or in part, by the Authority for its convenience or in the event of substantial failure by WSCAC to fulfill their obligations, or for violation of any of the covenants and stipulations of this Agreement.

(b) If termination is effected by the Authority an equitable adjustment shall be made providing for payment to WSCAC for services rendered and expenses incurred prior to the termination. In addition, termination settlement costs reasonably incurred by WSCAC relating to commitments, which had become firm prior to the termination, shall be paid.

(c) This agreement may be terminated at any time, in whole or in part, in writing by WSCAC in the event of substantial failure by the Authority to fulfill its obligations or for violation by the Authority to fulfill its obligations or for violation by the Authority of any of the covenants and stipulations of this agreement.

(d) No termination hereunder may be effected unless the terminating party gives the other party: (1) not less than forty-five days' written notice delivered by certified mail, return receipt requested of intent to terminate; and (2) an opportunity for consultation with the other party prior to termination, or (3) by mutual agreement of the parties.

8.2 Ownership of Property.

Upon termination of this Agreement for any reason, WSCAC shall turn over to the Authority all materials, equipment, including computer equipment currently on loan from the Authority and owned by the Authority, unused office supplies, books, pamphlets, publications and all other properties for which Authority or MDC reimbursements were made in whole or in part, directly or indirectly.

8.3 Assignability.

WSCAC shall not assign or transfer this Agreement or delegate its responsibility for the performance of services under this contract.

8.4 Integration Clause.

This Agreement may be amended only by a writing executed by each of the Parties.

8.5 Severability of Provisions.

If any provision of this Agreement shall, to any extent, be held invalid or unenforceable, the remainder of this Agreement shall not be deemed affected thereby.

8.6 Massachusetts Law to Govern.

All parties to this Agreement agree that this Agreement shall be governed by and enforced in accordance with the laws of the Commonwealth of Massachusetts.

8.7 Duplicate Originals.

This Agreement may be signed in more than one identical counterpart, each of which shall be deemed to be an original hereof.

8.8 Notices.

Communications shall be deemed to have been made when mailed postage prepaid or delivered to among:

Chair and
Executive Director
Water Supply Citizens Advisory Committee
485 Ware Road
Belchertown, MA 01007

Director of Public Affairs
Massachusetts Water Resources Authority
Charlestown Navy Yard
Building 39, First Avenue
Boston, MA 02129

Executive Director
Massachusetts Water Resources Authority
Charlestown Navy Yard
Building 39, First Avenue
Boston, MA 02129

IN WITNESS WHEREOF, this Agreement is executed as of this day of June, 2020.

FOR: WATER SUPPLY CITIZENS ADVISORY COMMITTEE

By: _____
Title: Chair, Water Supply Citizens
Advisory Committee

Dated:

FOR: MASSACHUSETTS WATER RESOURCES AUTHORITY

By: _____
Title: Executive Director

Dated:

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: May 27, 2020
SUBJECT: Supply and Delivery of Sodium Hypochlorite for the John J. Carroll Water Treatment Plant and the William A. Brutsch Treatment Facility
Univar USA, Inc.
Bid WRA-4834

COMMITTEE: Water Policy & Oversight

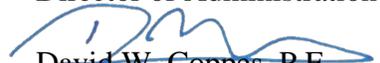
Mark H. Johnson, P.E., Director Waterworks
Douglas J. Rice, Director of Procurement
Preparer/Title

 INFORMATION

 X VOTE


Michele S. Gillen

Director of Administration


David W. Coppes, P.E.

Chief Operating Officer

RECOMMENDATION:

To approve the award of Purchase Order Contract WRA-4834, a one-year contract for the supply and delivery of sodium hypochlorite to the lowest responsive bidder, Univar USA, Inc., and to authorize the Executive Director, on behalf of the Authority, to execute said purchase order contract in an amount not to exceed \$1,630,911.40 for a period of one year, from July 17, 2020 through July 16, 2021.

DISCUSSION:

MWRA uses sodium hypochlorite at 15% solution at the John J. Carroll Water Treatment Plant in combination with aqua ammonia, to form monochloramines for secondary disinfection. Monochloramines provide a stable and persistent disinfectant residual throughout MWRA's entire water distribution system. Staff estimate that approximately 2,042,000-gallons will be required during this one-year contract period.

MWRA also uses sodium hypochlorite for primary disinfection at the William A. Brutsch Water Treatment Facility. At Brutsch, MWRA uses sodium hypochlorite at 11% solution because it is less prone to degradation over long periods of storage. The product of degradation is gas bubbles, which can block the supply of chemical by positive displacement pumps, which in turn reduces process reliability. Since this facility is unstaffed for 16 hours each day, the lower concentration hypochlorite is used to reduce the risk of an interruption in water treatment while unstaffed. Based upon reasonable assumptions and historic usage, staff estimate that Brutsch will use approximately 48,200 gallons of sodium hypochlorite during the one-year contract term. The anticipated usage is an estimate only. MWRA will only pay for the chemical that is received.

Procurement Process

Bid WRA-4834 was advertised in the following publications: Boston Herald, Goods and Services Bulletin, El Mundo, and Banner Publications. In addition, bids were made available for public downloading on MWRA's e-procurement system (Event 4259) and four potential bidders were solicited through the e-Portal.

On April 21, 2020, Event 4259 closed, with the following results:

Univar USA, Inc.	Estimated Gallons	Percent Solution	Unit Price Per Gallon	Extended Bid Price
Brutsch Facility	48,200	10% Solution	\$1.427	\$68,781.40
Carroll Plant	2,042,000	15% Solution	\$0.765	\$1,562,130.00
			Total Bid	\$1,630,911.40
Borden & Remington Corporation.	Estimated Gallons	Percent Solution	Unit Price Per Gallon	Extended Bid Price
Brutsch Facility	48,200	11% Solution	NO BID	NO BID
Carroll Plant	2,042,000	15% Solution	\$0.9134	\$1,865,162.80
			Total Bid	\$1,865,162.80
Kuehne Chemical Company, Inc.	Estimated Gallons	Percent Solution	Unit Price Per Gallon	Extended Bid Price
Brutsch Facility	48,200	11% Solution	\$2.00	\$96,400.00
Carroll Plant	2,042,000	15% Solution	\$0.9500	\$1,939,900.00
			Total Bid	\$2,036,300.00

Under the current contract with Univar USA, Inc., which will expire on July 16, 2020, MWRA is paying a fixed price of \$0.745 for the Carroll Plant and \$1.42 for the Brutsch Facility. The new bid prices represent a \$0.02-per-gallon increase at the Carroll Plant and a \$0.007-per-gallon increase at Brutsch.

Sodium hypochlorite is manufactured from two different products in approximately equal parts, chlorine and caustic soda. The caustic soda market has historically been very volatile. However, during the past several years, the global market demand for caustic soda has remained stable.

Staff have reviewed the current bids and have determined that Univar USA, Inc. has met all of the requirements of the bid specifications. Therefore, staff recommend the award of this purchase order to Univar USA, Inc., as the lowest responsive bidder.

BUDGET/FISCAL IMPACT:

There are sufficient funds available in the included in the FY21 Current Expense Budget. Appropriate funding will be included in subsequent Proposed CEB requests for the remaining term of the contract.

MBE/WBE PARTICIPATION:

Univar USA, Inc. is not a certified Minority- or Women-owned business.

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: May 27, 2020
SUBJECT: Metropolitan Tunnel Redundancy Program
Preliminary Design, Geotechnical Investigation and Environmental Impact Report
CDM Smith, Inc.
Contract 7159

COMMITTEE: Water Policy and Oversight

 INFORMATION

 X VOTE


Michele S. Gillen

Director of Administration

Beth Card, Director, Environmental and Regulatory Affairs
Frederick O. Brandon, P.E., Director, Design and Construction
Preparer/Title


Kathleen M. Murtagh, P.E.

Director, Tunnel Redundancy

RECOMMENDATION:

To approve the recommendation of the Consultant Selection Committee to award Contract 7159, Metropolitan Tunnel Redundancy Program Preliminary Design, Geotechnical Investigation and Environmental Impact Report to CDM Smith, Inc. and to authorize the Executive Director, on behalf of the Authority, to execute said Contract in an amount not to exceed \$15,692,527 for a contract term of 42 months from the Notice to Proceed.

BACKGROUND:

In February 2017, the Board of Directors approved staff's preferred alternative to provide redundancy for the Metropolitan Tunnel System and directed staff to proceed with preliminary design, geotechnical investigation, and Massachusetts Environmental Policy Act (MEPA) review of the Project.

The preferred alternative generally consists of a northern tunnel and a southern tunnel (See Attachment A). Both tunnels are proposed to begin near the terminus of the Hultman Aqueduct and MetroWest Water Supply Tunnel. The northern tunnel is proposed to extend approximately 4.5 miles to the north, ending near the Waltham/Belmont line with a connection to the existing 60-inch diameter Weston Aqueduct Supply Main Number Three (WASM 3). The southern tunnel is proposed to extend approximately 10 miles to the south, ending in Mattapan with a connection to the Southern Spine distribution pipes near Shaft 7C of the Dorchester Tunnel.

In October 2018, given the size and complexity of the program, the Board approved the execution of two consultant contracts to perform necessary work over the next several years. The Preliminary

Design Engineering contract is the subject of this recommendation. An update on the Program Support Services contract, which was awarded in March 2019 and the status of program-wide activities to date is presented in Attachment B.

DISCUSSION:

Preliminary Design Engineering Contract

The Preliminary Design Engineering contract includes the preliminary geotechnical investigation (deep rock borings), evaluation of preliminary tunnel alignment and shaft site alternatives, preliminary design, preliminary contract packaging, preparation of the required MEPA filings and development of a comprehensive list of the environmental permits needed.

The tasks included in this contract require substantial amounts of coordination with environmental regulatory agencies in order to ensure that the data and documentation generated result in a robust alternatives analysis in the MEPA process. In addition, early interaction with regulators will give MWRA staff the opportunity to address comments and concerns raised by agencies in the earlier MEPA phases.

At the completion of the Preliminary Design Engineering contract, the goal is to have selected the alignment of the proposed tunnels and the location of shaft sites for construction and interconnections with the existing water system, pending land acquisition and final permits.

The Preliminary Design Engineering contract will result in several significant project deliverables including:

- MEPA Environmental Notification Form
- Preliminary Geotechnical Data and Design Reports
- Tunnel Alignment Alternatives Evaluation Report
- Preliminary Design Report and Preliminary Design Drawings
- Draft and Final Environmental Impact Reports

While the Preliminary Design Engineering contract is underway, MWRA will simultaneously be implementing its communication plan to ensure that all stakeholders are informed as to the importance of this effort and what can be expected in the years ahead. This contract does not have a direct communication task; however, the work done under this contract will be utilized to support MWRA's communications efforts, which should in turn yield more informed comments during the MEPA process.

Procurement Process

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

A Selection Committee consisting of five voting members and seven non-voting members was formed to score and rank the proposals. Recognizing the importance of this project, the appointed voting members of the Selection Committee consisted of senior MWRA staff, who understand the critical needs of the water transmission system, the complexity of the permitting process, and the importance of the shaft site and alignment decisions that need to be made.

The RFQ, which was issued on October 2, 2019, required firms to submit information on: Qualifications/Key Personnel (45 points), Similar Experience/Past Performance (35 points) and Capacity (20 points). On November 1, 2019, Qualifications Statements were received from six respondents: AECOM Technical Services, Inc. (AECOM), Brierley Associates Corporation (Brierley), CDM Smith, Inc. (CDM Smith), McMillan Jacobs Associates, Inc. (McMillan Jacobs), Parsons Transportation Group, Inc. (Parsons), and Stantec, Inc. (Stantec). The Selection Committee evaluated the Qualifications Statements and voted to short-list the following three firms: AECOM, CDM Smith and McMillan Jacobs. Brierley was not shortlisted due to less large diameter pipeline design experience and less experience in program level tunnel alternatives evaluation than the shortlisted firms. Parsons was not shortlisted due to less relevant experience in water system hydraulics than the shortlisted firms. Stantec was not shortlisted due to less experience of some key personnel and less committed capacity of key personnel to this project.

The RFP was issued to AECOM, CDM Smith and McMillan Jacobs on December 2, 2019 and included the following criteria: Cost (20 points), Qualifications/Key Personnel (20 points), Technical Approach (20 points), Organization and Management Approach (20 points), Experience/Past Performance on similar Projects (15 points) and MBE/WBE Participation (5 points) for a total maximum score of 100 points.

On February 14, 2020, the three shortlisted firms submitted Proposals. The following is a summary of the costs and level of effort for each firm:

Proposer	Proposed Cost	Proposed Level of Effort (total hours)
CDM Smith	\$15,692,527	58,301
McMillan Jacobs	\$16,993,155	67,995
AECOM	\$19,241,231	79,416
<i>Staff Estimate</i>	<i>\$15,956,347</i>	<i>62,266</i>

The Selection Committee met to discuss and rank the Proposals. All of the scores from the Selection Committee members were totaled to determine the first-ranked team. The following is a summary of scores and rankings for each team:

Proposer	Total Final Score	Order of Preference Points*	Ranking
CDM Smith	439	5	1
McMillan Jacobs	402	10	2
AECOM	339	15	3

*Order of Preference represents the sum of the 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 unanimously voted to recommend award of the contract to the first ranked firm, CDM Smith. The CDM Smith team includes the following firms: Jacobs Engineering Group (Jacobs), Vanasse Hangen Brustlin, Green International Affiliates, CDW Consultants, Inc. and New England Boring Contractors (NEBC). The Selection Committee members agreed that the CDM Smith team will provide well-qualified personnel who have extensive and relevant experience in the analysis of tunnel alignment alternatives, the operational requirements of MWRA's water transmission system, the planning and design of deep rock tunnels, and MEPA documentation and compliance. CDM Smith's proposed Technical Approach for this project was very thorough and well thought out. They identified critical success factors for the project including hydraulic flexibility and reliability, accurate/representative geotechnical data, and constructible/permitable infrastructure. Their proposed rock tunnel engineer has over 30 years of experience in the design of similar tunnels and is highly respected in the industry. Their proposed hydraulics engineer has over 35 years of experience and has worked extensively with the MWRA water system hydraulic model. CDM Smith's primary subconsultant, Jacobs, provided the permitting and engineering services for the MWRA MetroWest Water Supply Tunnel and many of the key staff from that project are assigned to this team. CDM Smith also has extensive experience in the design and hydraulic analysis of MWRA major water facilities.

CDM Smith's proposed cost is the lowest of the three proposers and is two percent lower than staff's estimate. The proposed level of effort (number of hours) is six percent lower than staff's estimate. The Selection Committee determined that CDM Smith's cost proposal provided the most appropriate distribution of hours among staff and tasks. The cost of the geotechnical drilling program is a significant portion of this contract (seven percent). CDM Smith's proposed driller (NEBC) is well qualified with large local crews and equipment, and proposed very competitive drilling costs compared to the other proposals.

The McMillan Jacobs proposal also included very qualified key personnel and demonstrated excellent experience. Their proposed cost was 6.5 percent higher than staff's estimate. McMillan Jacobs proposed ten subconsultants as part of their team, compared to five subconsultants proposed by CDM Smith, which the selection committee believed would require additional cost for coordination and oversight. In addition, McMillan Jacobs proposed to use an out-of-state drilling contractor with headquarters in Dayton, Ohio to conduct the boring program at a cost 46 percent higher than the CDM Smith proposal.

The AECOM proposal also included very qualified key personnel and demonstrated excellent experience. Their proposed cost was 21 percent higher than staff's estimate. AECOM proposed a higher level of effort than the other proposers for several tasks, which the Selection Committee determined as excessive. In addition, AECOM proposed to use two drilling contractors for the boring program, one in-state and one out-of-state. The combined cost of the boring program from these two drillers is 74 percent higher than the CDM Smith proposal.

Staff met with representatives of CDM Smith to confirm that they fully understand the scope of work and that they can complete the services for the proposed cost and schedule. Based on those discussions and for the reasons stated above, staff recommends that Contract 7159 be awarded to CDM Smith, Inc. Although the RFP targeted May 1, 2020 as the Notice to Proceed date for this contract, due to the ongoing uncertainty surrounding the coronavirus pandemic, staff expect to delay the Notice to Proceed until late June/early July 2020.

BUDGET/FISCAL IMPACT:

The FY20 CIP includes a budget of \$16,000,000 for Contract 7159. The recommended contract award amount is \$15,692,527.

MBE/WBE PARTICIPATION:

The MBE and WBE participation requirements for this contract were established at 7.18% and 5.77%, respectively. CDM Smith has committed to 9.87% MBE and 5.78% WBE participation.

ATTACHMENTS:

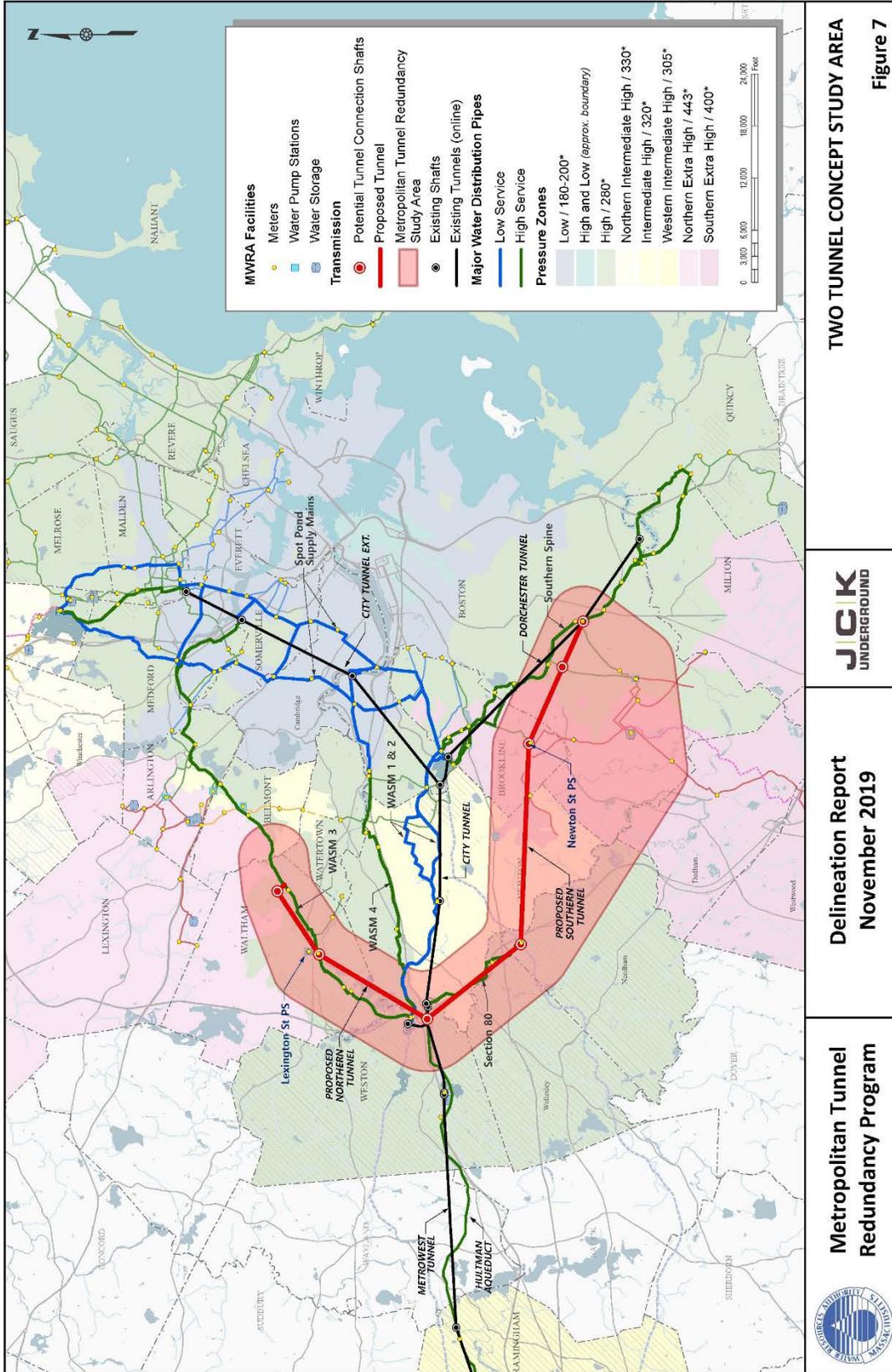
Attachment A: Preferred Alternative and Tunnel Alignment Study Area

Attachment B: Update on Program-Wide Activities

Attachment A

Metropolitan Tunnel Redundancy Program

Preferred Alternative and Tunnel Alignment Study Area



TWO TUNNEL CONCEPT STUDY AREA
Figure 7

Page 16 of 16



Delineation Report
November 2019

Metropolitan Tunnel
Redundancy Program



Attachment B

Update on Tunnel Redundancy Program Activities

MWRA's Tunnel Department staff have been developing program-wide standards, procedures and guidelines to ensure that work performed by staff and consultants is efficient, consistent and of high quality. The following is a summary of completed and ongoing activities to support the management of the Tunnel Redundancy Program:

Completed Program-Wide Guidelines and Standards

Quality Management Plan. This document sets forth the minimum quality assurance and quality control procedures that the Program staff and consultants will implement in all areas of the work, including planning and design documents, internal and external communications, contract documents, technical reports, memoranda, and calculations.

Program Risk Management Plan. This document provides the approach to risk management for the Program. It describes the scope and objectives of the risk management effort, the methodologies and tools to be used, and the organizational structure to be followed throughout execution of the plan. The key aspects of the Risk Management Plan include:

- Risk management responsibilities of the various parties involved with the Program;
- Qualitative Risk Analysis and Risk Register Development;
- Risk Register Updating and Management; and
- Quantitative Analysis of Cost and Schedule Impacts of Risk Events.

Geotechnical Field Manual. This document provides program-wide standards, operational procedures and guidelines for geological and geotechnical investigations and related activities. It also establishes guidelines for quality and consistency of data collection and presentation among the multiple parties who will be involved in the geotechnical evaluation of the Program.

Program Delineation Report. This report was prepared for use by proposers responding to the Preliminary Design Request for Proposals. It describes the Program concept, the program goals, and delineates its anticipated scope. The content includes general summaries of the existing MWRA transmission system; the factors compelling the need to augment redundancy; and the concept to achieve these needs by constructing two new tunnels.

Existing Geotechnical Data Report. This is a 3000 page report that compiles existing MWRA project records, publicly available information, and references within and adjacent to the program study area. The existing geologic maps, geotechnical data reports, geotechnical engineering reports, technical papers and summary tables that are appended to or referenced in the report are provided to assist in developing an understanding of the areal and vertical extent of soil and rock types in the study area for use in Program planning.

Ongoing Program-Wide Activities

In addition to preparing the above documents, staff are working on the following ongoing items:

Expert Review Panel. An Expert Review Panel has been formed to provide recommendations to the MWRA on key program elements such as risk mitigation, communication, program management and tunnel design and construction. In October 2019, staff provided a summary of the purpose and members of the Expert Review Panel. The first Expert Review Panel Workshop was held in November 2019. At that workshop staff presented the overall program and received constructive feedback from the panel. The next workshop is anticipated to be held in Summer/Fall 2020 to review initial work products of the Preliminary Design Engineer and discuss the Department's Risk Management Plan. The panel will continue to convene on a regular basis throughout the design phase of the Program.

Program Guide Specifications. Staff are preparing a standardized set of guide specifications to ensure consistency and quality, and to communicate the MWRA's preferences to engineering consultants that will be preparing construction documents. MWRA staff from the Tunnel Department, Engineering and Construction Department, and Procurement Department are developing these guide specifications.

Hydraulics. Staff have developed projected future high, medium and low water use projections using available population and employment projections. All three sets assume continued regional increases in population and employment. The low projections assume some continued improvements in water use efficiency; the medium assume no change in efficiency; and the high projects assume future development would be less efficient than current users. In October 2019, staff provided the Board with an update of these water use projections and the hydraulics of the proposed tunnel system. The current two-tunnel concept adequately meets projected needs and will accommodate the low projection of high day demand through 2040. Hydraulic analysis of the proposed tunnel system will continue through the preliminary design phase. Staff will continue to monitor system water use and continue to analyze the hydraulics of the new tunnel with respect to potential changes in population and employment projections or in water demand assumptions.

Program Budget and Schedule Analysis. Staff are reviewing the Program budget and schedule to identify potential impacts of key variables, such as schedule, ground conditions, and tunnel alignment.

Project Controls. Staff are evaluating and developing key performance indicators for the program to track expenditures and progress. These metrics will evolve as the program moves into final design and construction phases.

Geotechnical Data Management Plan. An extensive geotechnical program will be implemented in multiple phases by various consulting firms over the course of preliminary and final design. A Geotechnical Data Management Plan is being developed to outline the organization and management of this comprehensive collection of data. Geotechnical data will be organized and stored in a computer database that can be accessed by various Program members.

Program Management Plan. A Program Management Plan is being developed to document processes and procedures for the Tunnel Redundancy Program. It will include the Program organization, roles and responsibilities, contract administration procedures, communications protocols, and will be the single repository for all of the program-wide guidelines and standards described above.

Contact Practices. The tunnel construction industry has evolved over the years to address issues that are unique to underground construction such as differing site conditions, geotechnical reports, change order process, and payment provisions. Staff have convened an in-house working group with support from the Program Support Service consultant to review MWRA standard construction contract terms and conditions relative to current tunnel industry practices.

STAFF SUMMARY

TO: Board of Director
FROM: Frederick A Laskey, Executive Director
DATE: May 27, 2020
SUBJECT: May PCR Amendments



COMMITTEE: Personnel and Compensation

 INFORMATION
 X VOTE

Andrea Murphy, Director of Human Resources
Preparer/Title


Michele S. Gillen
Director, Administration

RECOMMENDATION:

To approve amendment 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.

May PCR Amendments

There are three PCR Amendments this month.

Organizational Change

1. Title change to one vacant position in the Administration Division, MIS department from Database Analyst Programmer Unit 6 Grade 11, to Business Systems Analyst II, Unit 6 Grade 11, to more accurately reflect the responsibilities of the position.
2. Title change to one vacant position in the Administration Division, MIS department from Network Administrator III Unit 6 Grade 12, to System Administrator III (Systems), Unit 6 Grade 12, to more accurately reflect the responsibilities of the position.
3. Title and grade change to one filled position in the Administration Division, MIS department from Senior Operator/ Email Administrator Unit 6 Grade 9, to Systems Administrator I, Unit 6 Grade 10, as part of a union settlement.

The three amendments require approval by the Personnel and Compensation Committee.

BUDGET/FISCAL IMPACT:

The annualized budget impact of these PCR amendments will be a maximum cost of \$8,862. Staff will ensure that the cost increase associated with these PCR amendments will not result in spending over the approved FY20 Wages and Salaries budget.

ATTACHMENTS:

Old Job Descriptions
New Job Descriptions

**MASSACHUSETTS WATER RESOURCES AUTHORITY
POSITION CONTROL REGISTER AMENDMENTS
FISCAL YEAR 2020**

PCR AMENDMENTS REQUIRING PERSONNEL & COMPENSATION COMMITTEE APPROVAL - May 27, 2020																	
Number	Current PCR #	V/F	Type	Current Title	UN	GR	Amended Title	UN	GR	Current/Budget Salary	Estimated New Salary		Estimated Annual \$ Impact		Reason		
															For Amendment		
P11	Administration MIS 8610067	V	T	Database Analyst Programmer	6	11	Business Systems Analyst II	6	11	\$106,646	\$69,694	-	\$106,646	-\$36,952	-	\$0	Title change to more accurately reflect the responsibilities of the position.
P12	Administration MIS 8610036	V	T	Network Administrator III	6	12	Systems Administrator III (Systems)	6	12	\$117,280	\$76,646		\$117,280	-\$40,634		\$0	Title change to more accurately reflect the responsibilities of the position.
P13	Administration MIS 8610056	F	T, G	Senior Operator/ Email Administrator	6	9	Systems Administrator I	6	10	\$88,036	\$96,898	-	\$96,898	\$8,862	-	\$8,862	Union settlement.
PERSONNEL & COMPENSATION COMMITTEE TOTAL=					3						TOTAL:		-\$68,724	-	\$8,862		
PCR AMENDMENTS REQUIRING BOARD APPROVAL - May 27, 2020																	
None																	
BOARD TOTAL =					0	TOTAL ESTIMATED COSTS:					\$0	-	\$0				
GRAND TOTAL =					3	TOTAL ESTIMATED COSTS:					-\$68,724	-	\$8,862				

**MWRA
POSITION DESCRIPTION**



POSITION: Database Analyst Programmer/Custom Support

DIVISION: Administration & Finance

DEPARTMENT: Management Information Systems (MIS)

BASIC PURPOSE:

Primary technical lead in support of assigned applications including, senior level programming, systems project management, application maintenance and database integrity. Defines and develops new functionality, database structures, application interfaces and the critically shared data elements through a comprehensive understanding of the MWRA's business functions.

SUPERVISION RECEIVED:

Works under the general supervision of the I/S Custom Support Manager.

SUPERVISION EXERCISED:

Exercises close supervision of assigned project staff and technical resources.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Performs senior level programming and leads all technical efforts associated with development, maintenance and enhancement of the Custom Support developed systems in compliance with SDM and MIS Change Control Procedures.
- Manages assigned technical staff resources and combined user and MIS implementation task forces.
- Assures the quality and integrity of the production version of systems in compliance with SDM and Change Control Procedures.
- Manages new release and maintenance support activities as required.
- Oversees the definition of related data groups, data entities and data elements and the development of logical and physical data structures.
- Specifies and analyzes the operational requirements of related data groups, data entities and

data elements.

- Determines the clusters of systems related business functions and data entities which are most critical to the Authority, including the definition of critically shared data entities.
- Defines and analyzes relationships among distributed, consolidated and redundant related data structures.
- Executes software testing and data structure utilities and procedures; and, validates the content of data structures for data security and data accuracy.
- Participates in the identification, evaluation and storage medium organization techniques and access methods.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A four (4) year college program in computer science or related field. Advance degree preferred; and
- (B) Six (6) to eight (8) years experience in programming and support on a varied application portfolio, including at least (2) years of project management experience; or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills, and Abilities:

- (A) Knowledge of data base design and programming.
- (B) Proficiency with the following required: SQL Server, database administration and security management, .NET technologies, Visual Studio, Windows-XP or Windows Server programming environment, JavaScript, IE Browser, and problem solving.
- (C) Proficiency with the following preferred: user training, user documentation & materials, Team Foundation Server, SharePoint Server, and Windows SharePoint Services.
- (D) Knowledge preferred: Information and business process modeling, prototyping and reverse engineering, database administration and security management, and data

warehousing.

- (E) Demonstrated experience in project management techniques and the ability to establish effective relationships with users.

SPECIAL REQUIREMENTS:

None.

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; stand; climb or balance; stoop, kneel, crouch, or crawl; taste or smell.

The employee must frequently lift and/or move up to 25 pounds and occasionally lift and/or move up to 50 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 occasionally works in various field settings and in an office environment.

The noise level in the work environment is moderately quiet in office settings and moderately noisy in field settings.

October 2008

**MWRA
POSITION DESCRIPTION**



POSITION: Business Systems Analyst II

DIVISION: Administration

DEPARTMENT: Management Information Systems (MIS)

BASIC PURPOSE:

The Business Systems Analyst II works with business unit staff to understand business processes and to document and prioritize user requirements and functional specifications for new and existing systems that support the organizations needs. Serves as the conduit between the development team and the rest of the organization. Facilitates communications to translate business requirements expeditiously to help develop technical specifications as well as translate technical specification into language accessible to user and management audiences.

SUPERVISION RECEIVED:

Works under the general supervision of the IS Custom Support Manager. On specific IT projects may be functionally supervised by a Business Systems Analyst III or IT Project Manager III.

SUPERVISION EXERCISED:

None.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Gathers and documents business, functional and technical requirements from business leaders, end-users, and vendors for new and upgraded software applications (in-house and third party software) using proven business analysis methodologies and elicitation techniques. Documents project scope and creates vision documents.

- Supports Quality Assurance/Quality Control activities including developing functional and user test acceptance test plans in conjunction with IT and user stakeholders.

- Researches new approaches to improve business and system processes and develops reports and/or proposals for new or enhanced solutions.
- Identifies and documents gaps between the current as-is and recommended to-be processes.
- Collaborates with MIS Department engineering staff, contractors, and vendors to support development of technical specifications for appropriate system infrastructure hardware and software.
- Researches, designs, and tests interfaces between existing and new system applications and platforms to produce seamless integration that complies with business requirements.
- Maintains professional interaction with the IT staff and user community to ensure adequate system functionality, promotes team participation and encourages user confidence in the applications staff quality of service.
- Communicates and consults with end-users or management to provide information regarding the costs and ramifications of the decisions made.
- Evaluates MWRA application and business workflows, identifies improvements, documents requirements, prototyping, quality assurance, and makes recommendations on how business processes can be improved through better implementation of technology.
- Develops and maintains design documentation, report requirements and test plans of applications throughout the design process.
- Supports user acceptance testing and release management activities.
- Coordinates vendor access and resources as assigned.
- Develops and maintains functional unit's business continuity documentation as appropriate.
- Identifies project stakeholders by gathering and assessing information to determine whose interests should be considered.
 - Creates detailed requirements development work plan and schedule.

- Clearly documents issues and/or risks related to user requirements to ensure the communication between end-users and IT staff is understood by both parties.

SECONDARY DUTIES:

Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- A) A Bachelor's degree in management science, engineering management, computer science or related field; and
- (B) Four (4) to Six (6) years of experience gathering functional requirements, analyzing and accurately documenting requirements specifications, workflow diagrams, data flow diagrams, etc to effectively communicate needs to internal and external development teams and/or developing and testing prototypes; or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- A) Demonstrated knowledge as acquired through work experience with business and systems analysis techniques within the information technology disciplines to include the development of Requirements Work Plans.
- (B) Analytical and interpersonal skills.
- (C) Written and oral communication skills.
- (D) Knowledge of the following is desirable: MS Project, MS Visio, MS .Net, J2EE, Crystal Reporting, ORACLE, SQL Server and PL/SQL.

SPECIAL REQUIREMENTS:

Information Technology Infrastructure Library (ITIL) Foundation Certification is required or the ability to obtain within 12 months.

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 frequently lift and/or move up to 25 pounds and occasionally lift and/or move up to 50 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 occasionally works in various field settings and in an office environment. The employee regularly works near moving mechanical parts, and is occasionally exposed to risk of vibration.

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

May 2020

**MWRA
POSITION DESCRIPTION**



POSITION: Network Administrator III

DEPARTMENT: MIS

DIVISION: Administration & Finance

BASIC PURPOSE:

Responsible for development, configuration, implementation, and support of MWRA's Local and Wide Area Network solutions to meet MWRA's business goals and emerging industry standards.

SUPERVISION RECEIVED:

Works under the general supervision of the Network & Systems Manager.

SUPERVISION EXERCISED:

Exercises project supervision of assigned vendor and contract resources, and may provide lead supervision to subordinate staff.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Develops plans and leads implementation of solutions in all areas of networking including LAN, WAN, and enterprise-wide Microsoft Network operating system solutions.
- Keeps abreast of the latest technologies and solutions, and provides expertise to the Network and System Manager for evaluation and selection of appropriate solutions.
- Setup and configures complex switching, routing, and VPN environment utilizing Cisco routing and switching technologies for the MWRA network.
- Maintains a multi-site network operations and troubleshoots malfunctions of network hardware and software to resolve operational issues and restore services.
- Maintains a thorough understanding of the basics behind the Internet and its workings (DNS, IP routing, HTTP, VPN, Email routing and filtering and Spam management).
- Provides proactive management of variety of network devices that includes Cisco routers and switches, SonicWALL, Juniper, Netscaler, Websense Web Filtering, Ironport eMail Gateway and hardware Technologies such as Data Domain, EMC and 3Par.

- Maximizes network performance by monitoring performance, troubleshooting network problems and outages, scheduling upgrades, and implementing solutions developed by Network Architect.
- Recommends appropriate tools required to measure network performance and capacity. Conducts Network monitoring and testing
- Identifies and troubleshoots Microsoft operating system issues as well as network problems to ensure stable and healthy systems and network.
- Develops and implements process and procedures, for system integration and migration. Performs system management functions, proactive monitoring, and performance tuning of enterprise wide Microsoft Operating systems.
- Tests and deploys system and network updates and security patches.
- Supports and maintains backup solution for assigned Microsoft systems and optimizes the available resources through management of backup jobs, bandwidth and hardware devices.
- Documents operating procedures to conform to MWRA standards.
- Manages assigned staff which may include supervising junior System and Network Administrators, or train and supporting junior staff.
- Leads vendor contact for assigned network products well as review of maintenance contracts.

OTHER RESPONSIBILITIES:

- Participates in occasional off-site travel, extended hours and weekend work.
- Shares in on-call and emergency response tasks.
- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A four (4) year college degree in computer science or related field is required.; and
- (B) Seven (7) to nine (9) years of experience implementing and maintaining a large-scale enterprise network environment is required; or
- (C) Any equivalent combination of education and experience.

Necessary Knowledge, Skills and Abilities:

- (A) Technical knowledge of and demonstrated experience with: a large network (LANS, WANS and VLAN); and CISCO network devices; Microsoft Network Operating System including NT-security, Active Directory, Domain models/trusts, NT Profiles, Registry Editor, WINS, IIS; Routing protocols (including BGP and OSPF); Remote access technologies (including VPN, SSL, IPsec, TCP/IP, SNMP Protocols, Browsers and Firewalls); DNS; DHCP; PCs; and HP Hardware products/technologies (such as RAID, SANs, NAS, and HP system Insight Manger, and fiber channel devices).
- (B) Proficiency with the following is required: Exchange e-mail system; e-mail filtering (Cisco Ironport or similar product); Virus Protection products and management solutions (McAfee, Symantec or similar products); Patch management solutions (Shavlik Netchkpro or similar product); Web filtering (Websense or similar product), Network Management products (Sniffer network analyzer and HP Open view or similar products); Enterprise Backup Solutions (EMC Networker or similar product) and Storage system administration and vSphere ESX/ESXi.
- (C) Experience with SONET, MPLS, Video Conferencing, QOS, cabling standard and Fiber Optics, is desirable.
- (D) Ability to diagnose effectively and interpret problems on a variety of Microsoft-NT and network devices.
- (E) Excellent technical project management, interpersonal, written and oral communication skills are required.

SPECIAL REQUIREMENTS:

Information Technology Infrastructure Library (ITIL) Foundation Certification is required, or the ability to obtain within 6 months.

A current MCSE certification and CISCO product certifications, or otherwise required to be obtained within 1 year.

TOOLS AND EQUIPMENT USED:

Mini-computer consoles, tape and disk storage systems, various network and peripheral devices and 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 works is regularly required to use hands to finger, handle, feel or operate objects, tools or controls and reach with hands and arms. The employee frequently is required to sit and talk or hear. The employee is occasionally required to walk; stand; climb or balance; stoop, kneel, crouch, or crawl; taste or smell.

The employee must frequently lift and/or move up to 25 pounds and occasionally lift and/or move up to 50 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 a computer center, network closets and occasionally works in various field settings. The employee regularly works near moving mechanical parts, and is occasionally exposed to risk of vibration and electromagnetic radiation. The employee is occasionally exposed to risk of electrical shock. The Computer Center also uses automatically discharging chemicals to suppress fire.

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

January 2015

**MWRA
POSITION DESCRIPTION**



POSITION: Systems Administrator III (Systems)

DIVISION: Administration

DEPARTMENT: Management Information Systems (MIS)

BASIC PURPOSE:

Manage and support the operation of MWRA's enterprise messaging environment as well as the organization's Active Directory network, servers and storage in a multiple platform and operating systems environment. Incorporates long-term system, operations and administration requirements in information systems planning documents. Researches vendor products and recommends purchases, development or enhancements of hardware/software that will improve the reliability and performance of systems and applications.

SUPERVISION RECEIVED:

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

SUPERVISION EXERCISED:

Exercises supervision of assigned vendor resources and IT Project Team.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

Email Administration:

- Administer and support the Authority's Email and mobile device environment consisting of multiple technologies, multiple servers and multiple locations to ensure high availability, optimum performance, and compliance with established policies.
- Configure and maintain Exchange Database Availability Groups, Window clustering, clustered settings, Cluster Quorum to ensure integrity, high availability, and to meet the failover clustering requirements.
- Administer mailboxes, distribution groups, mailbox quotas, and message queues.
- Configure, maintain, and support SMTP mail relay server and services for both internal and external messaging needs
- Administer, support and maintain integration with archiving, eDiscovery, and other business solutions.

- Configure, maintain, and test Microsoft Exchange backups.
- Exercise business continuity and disaster recovery procedures to ensure the integrity of the Email environment including database rebuilding as required.
- Maintain Exchange test environment and tests upgrades

System Administration:

- Maintain and support of MS Active Directory services, OUs, Groups and objects consisting of multi-site multiple servers to ensure proper operation and performance
- Account management, sets, maintains and reports on AD permissions and attributes.
- Support the integration of business applications requiring interaction with Active Directory via Directory Services or LDAP
- Configure, maintain, and support all file shares.
- Configure, maintain, and support internal Domain Name Systems & services to ensure high availability.
- Support and maintain DHCP high availability.
- Maintain and support internal Certificate Services. Support business applications in process of certificate type identification. Sign and issue internal certificates as required
- Maintain test environment and test upgrades
- Participates and prepares for Disaster Recovery planning and test activities.

Servers:

- Supports and performs all System Management functions for current operating systems supporting MWRA data processing environments.
- Development of scripts to perform administrative tasks.

Storage:

- Responsible for support of current storage and backup systems
- Develops and implements backup scripts and jobs for all MWRA systems
- Conducts backups for current operating environments. Maintains onsite backup records and logs. Restores files and file systems as needed.

Incident, Problem, and Service Management:

- Respond to events, and reported outages to correct and resolve issues
- Investigate root cause and determine systemic solutions for identified environment problems
- Responds to assigned service requests.

System Documentation:

- Documents and maintains operating procedures to conform to MWRA standards
- Develops capacity management reports for capacity planning efforts
- Develop, document, and maintain system documentation for MWRA's email networks,

servers and storage environments

System Performance Monitoring, and Management:

- Daily monitoring of event and system logs of the email environment for problems, error conditions and troubleshoots problems to ensure high availability.
- Monitors networks, servers and storage for event management and coloration
- Monitor mailbox quotas, message queues, mailbox volumes, threshold limits, utilization and availability events to ensure integrity of email system.
- Review system and event logs of the Email Gateway for problems and error conditions, and troubleshoots to ensure high availability.
- Establish preventative maintenance schedules.
- Perform service and replication checks across enterprise domain controllers.
- Monitor daily performance and troubleshoot file services to ensure stable and healthy environment.
- Monitor and troubleshoot all DNS functions such as scavenging to ensure proper operation.
- Keeps abreast of the latest technologies and solutions, and provides expertise to the MIS Management Team in evaluating and selecting appropriate solutions.

OTHER DUTIES:

- Shares in on-call rotation and emergency response tasks as needed.
- Participates as a technical resource in implementation of new solutions as needed.
- Participates in occasional off-site travel, extended hours and weekend work.
- Perform related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience

- (A) A Bachelor's degree computer science, engineering or related fields; and
- (B) Seven (7) to nine (9) year experience implementing and administering Exchange in an enterprise environment; and
- (C) Five (5) to seven (7) years experience supporting and administering a Microsoft Active Directory enterprise network environment, or;
- (D) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Advanced proficiency with Microsoft Exchange. Demonstrated technical experience supporting Exchange 2010 or above, SMTP, email gateway products and services. Knowledge and experience with SPF, DKIM, and DMARC.
- (B) Advanced proficiency with Microsoft Active Directory, Group Policy, Kerberos, and LDAP. Demonstrated technical experience supporting Microsoft Operating Systems including Domain Name System, DHCP, Registry Editor, DFS, WINS, IIS, File Services and Certificate services.
- (C) Strong skills with Microsoft scripting languages such as VBScript and PowerShell.
- (D) Proficiency with Backup and recovery technology and methodologies.
- (E) Ability to setup and configure communications systems hardware and software.
- (F) Strong understanding of Network Storage, SAN environment, and virtualization such as vSphere ESX/ESXi.
- (G) Ability to troubleshoot problems utilizing the OSI seven-layer model.
- (H) Excellent technical project management, interpersonal, written and oral communication skills are required.

SPECIAL REQUIREMENTS:

- ITIL Foundation Certification in IT Service Management version 3 or 4 is required or the ability to obtain within 12 months; and
- And at least two of the following certification within one year:
 Microsoft Certified Solutions Expert (MCSE); Productivity, with a focus on Exchange
 Microsoft Certified Solution Expert: Core Infrastructure
 VMware Data Center Virtualization Certifications: VCAP – Data Center Administration

TOOLS AND EQUIPMENT USED:

Computer consoles, tape and disk storage systems, various network and peripheral devices and 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 works is regularly required to use hands to finger, handle, feel or operate objects, tools or controls and reach with hands and arms. The employee frequently is required to sit and talk or hear. The employee is occasionally required to walk; stand; climb or balance; stoop, kneel, crouch, or crawl; taste or smell.

The employee must frequently lift and/or move up to 25 pounds and occasionally lift and/or move up to 50 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 a computer center, network closets and occasionally works in various field settings. The employee regularly works near moving mechanical parts, and is occasionally exposed to risk of vibration and electromagnetic radiation. The employee is occasionally exposed to risk of electrical shock. The Computer Center also uses automatically discharging chemicals to suppress fire.

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

May 2020



**MWRA
POSITION DESCRIPTION**

POSITION: Sr. Operator/ E Mail Administrator

DEPARTMENT: MIS

DIVISION: Support Services

BASIC PURPOSE:

Administers the enterprise MS Exchange electronic mail and messaging system providing both internal and internet services. Manages the database of users and services, and operates and monitors the Exchange application and the NT server. Conducts computer operation functions to support the multi-vendor, multi-computer and multi-server environment. Monitors and supports computer processing, production schedules, coordinates utilization of input, output and interchangeable file media.

SUPERVISION RECEIVED:

Works under the general supervision of the Network Manager.

SUPERVISION EXERCISED:

N/A

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Administers, operates and monitors the MS Exchange electronic mail and messaging system to assure proper and reliable service; reviewing event logs for problems and error conditions.
- Manages the database of messaging users, services provided, and resources utilized.
- Maintains test environment, tests upgrades and changes, troubleshoots problems and oversees support contracts for the Exchange system.
- Oversees the backup and recovery to maintain the integrity of the electronic messaging environment including database rebuilding as required.
- Operates and monitors a variety of computer equipment and systems, to ensure maximum performance and availability including MPE/ix, VMS, NT and UNIX Operating Systems; file servers, laser and full size impact printers; 8mm, DLT, TK50 and TK70 cartridge tape drives, 9-track reel; and post processing equipment.
- Plans and assigns work of Computer Operator I staff and contributes in WRA review in conjunction with Data Center Manager and/or Systems Managers (second shift only).

- Prepares equipment for operations including: checks/replaces ribbons, toner, and other items; cleans machines; schedules calls for service on equipment as necessary; maintains equipment and work areas in a clean and orderly manner; assures adequate stock of computer room supplies are maintained.
- Performs system backups, monitors and scans production processing to ensure integrity of backups, off-site storage cycles, tape library and equipment performance.
- Creates, runs, and prints production reports and performs other tasks necessary to prepare computer reports for distribution.
- Responds to help desk phone calls and work orders on central and remote computers, file servers, electronic messaging system, workstations, etc.
- Updates and maintains documentation and procedures as required.
- Actively participates in shift turn-over meetings, provides and maintains shift error logs, etc.

SECONDARY DUTIES:

Perform related duties as required.

DESIRED MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A two (2) year college or technical program in computer science or related field.
- (B) Four (4) to seven (7) years of related experience in computer operations and console management, or
- (C) Any equivalent combination of education and/or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Demonstrated experience with MS Exchange electronic messaging system, including installation, configuration, operation, monitoring, backup and recovery and problem resolution.
- (B) Demonstrated experience with Compaq Alpha and/or Hewlett Packard computer operation functions, including computer processing, TCP/IP, XEDIT, DCL computer system performance standards and interchangeable file media.

(C) Proficiency with: a.) HP MPE/ix, VMS and/or UNIX console operating system commands; b.) TAPES and/or other similar automated tape media software; c.) Maestro and/or other similar job schedulers; and d.) Spoolmate and/or other similar spooling software.

(D) Prior supervisory or lead operator experience preferred as is expertise with PCs.

(E) Excellent analytical, interpersonal, written and oral communications skills are also required.

SPECIAL REQUIREMENTS:

None.

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 frequently lift and/or move up to 25 pounds and occasionally lift and/or move up to 50 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 a computer center and occasionally works in various field settings. The employee regularly works near moving mechanical parts, and is occasionally exposed to risk of vibration and electromagnetic radiation. The employee is occasionally exposed to risk of electrical shock. The Computer Center also uses automatically discharging chemicals to suppress fire.

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

**MWRA
POSITION DESCRIPTION**

NEW

POSITION: Systems Administrator I

DEPARTMENT: MIS

DIVISION: Administration

BASIC PURPOSE:

Supports the management and integration of the organization's servers and storage in a multiple platform and operating system environment. Performs system software upgrades, workstations and server administration setup and data backup and recovery. Administers the enterprise Exchange system providing both internal and internet services. Manages the database of users and services, and monitors the Exchange system. Coordinates disk space planning and management. Maintains growth statistics, space forecast, tape libraries, and productions change control. Participates in the research and evaluation of vendor products that will improve reliability and performance of systems.

SUPERVISION RECEIVED:

Works under the general supervision of the Sr. Systems Manager.

SUPERVISION EXERCISED:

Exercises functional supervision of assigned project staff and technical resources.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

System Administration:

Servers:

- Administers, operates and monitors all assigned systems to ensure proper and reliable service. Reviews event logs for problems and error conditions.
- Manages user mailboxes, contacts, and distribution lists.
- Oversees the backup and recovery efforts to maintain the integrity of the electronic messaging environment.

- Participates in the evaluation and testing related to system maintenance functions.
- Participates in cross-functional project teams to assist with the introduction of new technology solutions.

Storage:

- Utilizes established backup scripts and jobs for all MWRA systems.
- Configures backup storage policies, schedule policies, and monthly jobs.
- Reviews retention dates, naming, and accuracy of vendor supplied information.
- Investigates error conditions and works with vendor and staff to correct.
- Maintains vendors Portal for MWRA staff authorization/access for both Deer Island and Chelsea.
- Reviews periodic security/authorization reports generated by portal.
- Verifies integrity of backup records and logs.
- Performs file and system restores as needed.
- Trains MIS staff on new and future enhancements.

Incident and Problem Management:

- Investigate, diagnose, and resolve assigned support calls.
- Triage events and reported outages to correct and resolve issues on assigned systems.
- Investigates system errors and assists with determining systemic solutions for identified environment problems.

Project Management:

- Develops and maintains project schedule for assigned information technology programs and projects.
- Captures and maintains meeting minutes for assigned projects.

- Assists with preparing analyses, estimates, and plans necessary to support assigned projects.
- Monitors and provides status updates to supervisor on assigned projects.

System Documentation:

- Maintains operating procedures to conform to MWRA standards.
- Captures capacity management activities following documented Change Management procedures.
- Assists with developing and maintaining system documentation and standard operating procedures.

OTHER DUTIES:

Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelor's degree in management science, engineering management, computer science or related field; and
- (B) Two (2) to three (3) years' experience developing and managing IT project plans using industry standard tools, techniques and methodologies to help insure timely and cost effective implementation of IT projects; or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Knowledge of project management techniques within the information technology disciplines.
- (B) Analytical and interpersonal skills.
- (C) Written and oral communication skills.

PREFERRED CREDENTIALS

U6 Grade 10

- Information Technology Infrastructure Library (ITIL) Foundation Certification or the ability to obtain within 12 months.
- Certificate of Completion of Commvault Core Fundamentals course or the ability to obtain within 12 months. Certification status as a Commvault Certified Professional is preferred.

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 frequently lift and/or move up to 25 pounds and occasionally lift and/or move up to 50 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 a computer center and occasionally works in various field settings. The employee regularly works near moving mechanical parts, and is occasionally exposed to risk of vibration and electromagnetic radiation. The employee is occasionally exposed to risk of electrical shock. The Computer Center also uses automatically discharging chemicals to suppress fire.

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

May 2020

STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: May 27, 2020
SUBJECT: Appointment of Manager, Finance & Administration
Operations Division

COMMITTEE: Personnel & Compensation

 INFORMATION
 X VOTE

Andrea Murphy, Director, Human Resources
Carolyn Fiore, Deputy Chief Operating Officer
Dede Vittori, Manager of Finance, Operations Division
Preparer/Title


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

RECOMMENDATION:

To approve the appointment of Ms. Lisa Jenkins to the position of Manager, Finance & Administration (Unit 6, Grade 12), at an annual salary of \$107,322.65 commencing on a date to be determined by the Executive Director.

DISCUSSION:

The Manager, Finance & Administration position became vacant upon the recent retirement of the previous incumbent. The position reports to the Manager of Finance in the Operations Division. The position manages the financial and administrative needs of Field Operations and TRAC. The Manager, Finance & Administration is responsible for the budget development and tracking processes; revenue and cost accounting systems; accounts payables process; and other financial coordination functions. The position oversees assigned budget/accounting staff and coordinates with approximately 25 managers, recommending allocation of resources to meet department objectives.

Selection Process:

MWRA posted the position of Manager, Finance & Administration internally. One candidate, Lisa Jenkins, applied for the position and was referred by Human Resources to the division. The Manager, Finance for the Operations Division and the Special Assistant for Affirmative Action interviewed Ms. Jenkins and determined she is highly qualified for the position based on her experience, skills, aptitude, and training.

Ms. Jenkins has 37 years of work experience at MDC and MWRA in administrative and financial functions. She has served in numerous roles and has been promoted to higher level positions several times in her career. For the past nine years, Ms. Jenkins has served as a Senior Financial

Analyst in field operations where she demonstrated knowledge and skills in a broad range of financial functions including budget development and monitoring; cost tracking and analysis; revenue analysis; financial analysis; and accounting. She was also involved with other functions including accounts payable, vehicle fleet administration, and procurement. Throughout her career, Ms. Jenkins has consistently demonstrated competency, initiative, and expertise and has earned a very favorable reputation for her high-caliber work.

For the past five months, Ms. Jenkins has served as the Acting Manager of Finance & Administration and has supervised the three staff reporting to the position. She has done an excellent job managing the group and ensuring a smooth transition of duties. She has drawn upon her previous experience as an administrative supervisor at MWRA and has quickly demonstrated her aptitude for effectively managing a work group.

In addition to her extensive experience, Ms. Jenkins has completed coursework in business at Clark University. She has augmented her formal education with intensive on-the-job financial training with her previous supervisor and the Manager of Finance. She has also taken many training courses at MWRA to become proficient with software relevant to her work.

BUDGET/FISCAL IMPACT:

There are sufficient funds for this position in the FY21 Current Expense Budget.

ATTACHMENTS:

- Resume of Lisa Jenkins
- Position Description
- Organization Chart

Experience

Massachusetts Water Resources Authority, Chelsea, MA

Acting Manager, Finance & Administration, December 2019 - Present

- Manage \$80+ million Current Expense Budget (CEB) development and monitoring, accounting, payables and other administrative processes for Field Operations Department and TRAC.
- Review and comment on CEB submittal, following up with department staff to ensure consideration is given to all key budget needs and constraints.
- Directly supervise three staff and regularly coordinate with 20+ managers.
- Act as liaison to division budget staff, Finance Division staff and Advisory Board.
- Review department financial reports, reconciling to budget, and coordinate with managers to ensure spending is within established limits. Manage variance reporting and prepare financial analyses.
- Review purchases and warehouse disbursement reports to ensure correct alignment with department financial structure.

Sr. Financial Analyst, 2011 – December 2019

- Managed and developed \$17 million chemical and utility budget for water and wastewater facilities.
- Reviewed monthly variance reports and reconciled expenditures; provided detail to upper level management.
- Assisted with facility rehabilitation and sustainability planning by providing data on chemical and utility use, costs and trends to engineering, energy and budget staff.
- Developed \$3 million revenue budget. Tracked energy revenue and reconciled to budget and accounting system.
- Managed \$3 million CEB and CIP vehicle replacement process, including selection, submission, review, cost estimates, bid document submittal, staff summary preparation and procurement and deployment tracking.
- Maintained database of Operations Division vehicle and equipment assets including mileage, assignment, location and replacement schedule.
- Provided support and assistance for department database applications.
- Assisted with special projects as required.

Equipment & Tool Coordinator, 2006 – 2011

- Managed inventory of Field Operations Department equipment. Performed physical inventories.
- Coordinated turn-over of surplus property to MWRA Property Pass group. Assessed materials to determine disposition and reviewed forms for accuracy and completeness.
- Advised FOD Program Managers on CEB and CIP vehicle replacement requests and justifications. Consolidated program requests and priorities to achieve Field Operations Department submittal.
- Maintained database of FOD vehicle and equipment assets including mileage, assignment, location and replacement schedule.
- Maintained and audited inventory of portable radios and expedited repairs. Recommended appropriate funding level for purchase of equipment and accessories.
- Audited and maintained fleet Fast Lane transponders and accounts.
- Oversaw and reviewed FOD's overtime expense tracking system. Provided data for budget requests, justifications and variance report explanations through analysis of spending trends.
- Reviewed monthly overtime variance report as needed to resolve discrepancies with FOD's overtime expense tracking system.

Administrative Systems Coordinator, 2001 – 2006

- Designed, developed and modified database applications for sick time use, overtime expenses and vehicle inventory and repair.
- Prepared quarterly reports on employee sick time use for management review and action. Analyzed benefit use over time to show trends and identify problem areas.
- Prepared organizational charts, cross-checked Position Control Register, generated and reviewed various personnel paperwork.
- Reviewed warehouse inventory transactions for appropriate budget charge-back.
- Prepared and consolidated CEB vehicle replacement requests and justifications, tracked and analyzed expenditures.
- Oversaw data collection and reporting on department vehicle and equipment fleet.
- Audited inventory of radios and Fast Lane Transponders and coordinated repair and replacement.

Massachusetts Water Resources Authority, Medford, MA

Administrative Systems Coordinator, 1989 – 2001

- Managed warehouse with \$2+ million inventory of pipe, valves, fittings and consumables.
- Prepared and approved requisitions for inventory stock of all types. Set inventory threshold levels to optimize turnover and correspond to budget planning estimates.
- Reviewed and reconcile physical inventory counts.
- Designed and developed database tracking systems for vehicle inventory and repair, construction work orders, computer equipment, overtime, and employee uniforms.
- Prepared CEB and CIP vehicle replacement requests and justifications. Prepared vehicle specifications.
- Supervised maintenance and repair of Distribution Section vehicles and equipment.
- Directly supervised six staff (storekeepers, mechanics and clerical). Performed annual employee performance evaluations.
- Performed facility inspections to identify deficiencies and prioritize needed repairs.

Massachusetts Water Resources Authority, Boston, MA

Executive Secretary, 1986 – 1989

Metropolitan District Commission, Boston, MA

Secretary to Director, Waterworks, 1983 – 1986

- Maintained Director's schedule. Coordinated meetings with in-house staff and community officials.
- Created organizational charts and gathered EEOC data for transition from MDC to newly created Massachusetts Water Resources Authority. Maintained organizational charts.
- Developed tracking documents for Waterworks Division vehicles and real property. Oversaw bi-annual inventory of division vehicles.
- Reviewed and logged all incoming correspondence. Took dictation and prepared outgoing correspondence.
- Recorded and transcribed minutes of grievance hearings.

Education

Clark University, Worcester, MA, 1980-1983

**MWRA
POSITION DESCRIPTION**

POSITION: Manager, Finance & Administration (Field Operations and TRAC)

DIVISION: Operations

DEPARTMENT: Programs, Policy & Planning

BASIC PURPOSE:

Manages all Current Expense Budget (CEB) budgeting and accounting functions for assigned department(s) within the Operations Division.

SUPERVISION RECEIVED:

Works primarily under the general supervision of the Manager, Finance. Provides functional support to the Director, Waterworks and Director, Wastewater.

SUPERVISION EXERCISED:

Exercises direct supervision of Senior Financial Analysts and Administrative Systems Coordinator.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Manages budget development process. Develops budget process, supervises budget staff, coordinates with approximately 25 managers, and recommends allocation of resources to meet department objectives. Acts as liaison with division budget staff, Rates and Budget Department staff, Treasury Department staff, and Advisory Board staff.
- Manages the process of developing Rates Planning Estimates by determining the CEB Impact of capital projects.
- Manages staff performing accounting and administrative coordination functions such as accruals, Accounts Payable, general ledger monitoring, etc.
- Manages the department's financial control mechanisms to ensure spending is within budget and that cost controls measures are implemented when possible. Manages CEB variance reporting.

- Manages tracking of current expense budget data and expenditures for assigned departments. Develops and maintains improved financial systems and databases for cost tracking and analysis.
- Works with Work Coordination staff to ensure that purchases are coded correctly in accordance with the department's budget and sub cost center structure.
- Reviews all major purchases to make sure they fit within the department budget constraints.
- Manages and prepares financial analyses.
- Manages or contributes to special projects.
- Performs management functions such as completing performance evaluations, serving on interview committees, ensuring staff development, and distributing work.
- Manages data tracking and recordkeeping systems for administration & finance functions within the department.

SECONDARY DUTIES:

- Performs related duties as required.

MINIMUM QUALIFICATIONS:

Education and Experience:

- (A) A Bachelor's degree in public/business administration or a related field (Master's degree preferred); and
- (B) Six (6) to eight (8) years of experience in planning, financial analysis and accounting preferably in the public sector; including at least 1 year of supervisory experience; or
- (C) Any equivalent combination of education or experience.

Necessary Knowledge, Skills and Abilities:

- (A) Knowledge of budgetary planning, financial analysis and accounting.
- (B) Demonstrated effectiveness at facilitating major processes that involve coordinating with people across all levels of an organization.
- (C) Ability to assign work, train and oversee staff.
- (D) Excellent analytical, facilitation, oral and written communication skills.
- (E) Good understanding of computer systems. Solid knowledge of MS Office Suite.
- (F) Knowledge of MWRA's budget system preferred.

SPECIAL REQUIREMENTS:

A MA Class D Driver's license is preferred for travel between MWRA locations.

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.

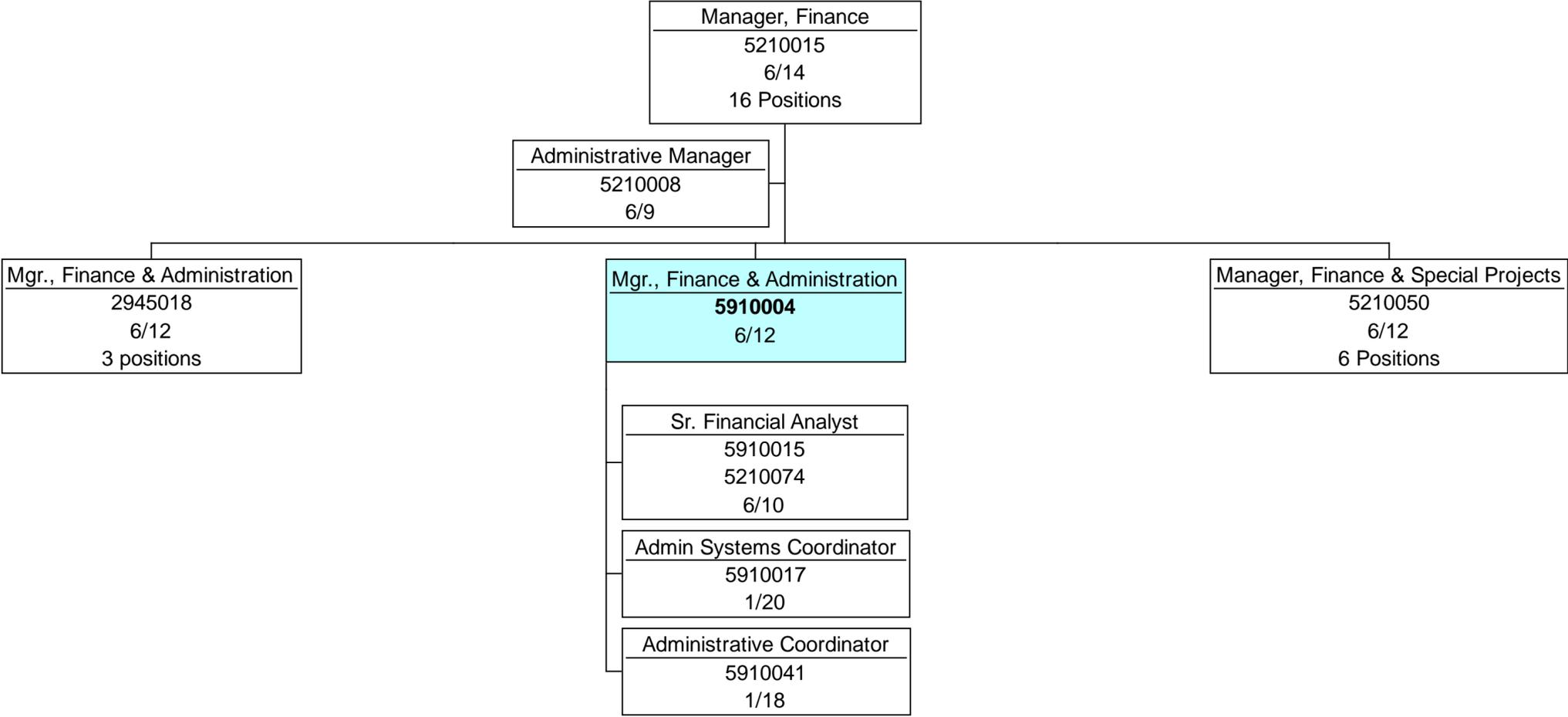
WORK ENVIRONMENT:

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.

March 2020

Operations Finance and Administration
May 2020



STAFF SUMMARY

TO: Board of Directors
FROM: Frederick A. Laskey, Executive Director 
DATE: May 27, 2020
SUBJECT: Authority Accountability and Transparency Act Compliance

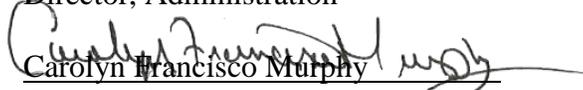
COMMITTEE: Personnel and Compensation

X INFORMATION
VOTE


Michele S. Gillen

Director, Administration

Andrea Murphy, Director, Human Resources
Preparer/Title


Carolyn Francisco Murphy
General Counsel

As required by the 2011 Authority Accountability and Transparency Act, the Personnel and Compensation Committee must meet independently of management at least once a year to establish and evaluate executive compensation, and analyze and assess comparable compensation for positions with similar functions and responsibilities at state agencies and authorities, and for-profit and non-profit private sector employers. This meeting will occur at the end of the May 27, 2020 Personnel and Compensation meeting. Analyses of comparable salaries are attached to facilitate the Committee's review.

RECOMMENDATION:

For information only.

DISCUSSION:

The Authority Accountability and Transparency Act (G.L. c. 29, §29K) became law in July 2011 and required the Executive Office for Administration and Finance (A&F) to adopt regulations governing accountability and transparency for state authorities. As applicable to MWRA, the statute requires the Board to review executive compensation based on an analysis of comparable public and private-sector compensation; and to prepare an annual report of all Authority expenditures including disclosure of salaries of highly compensated employees who earn more than the Governor's salary. It also prohibits the Commonwealth from subsidizing the health insurance, pension, and other post-employment benefits of employees and retirees of authorities that participate in the state retirement system or the Group Insurance Commission. A&F filed interim emergency regulations in July 2011, and in 2013, A&F promulgated the permanent regulation.

The final regulation:

- Defines the statutory term “executive” as the authority's chief executive officer, chief financial officer, general counsel and others as determined by the authority's compensation committee.
- Defines “highly compensated employees,” whose compensation is reported in the annual financial report, as those whose salary exceeds that of the Governor.
- Defines “meet independently of management” to exclude authority managers from statutorily required meetings of the authority's audit and compensation committees.
- Implements the benefits anti-subsidy statute, by requiring each state authority that participate in the state retirement system or the Group Insurance Commission to:
 - contribute the employer share of the cost attributable to that authority of the state retirement system (as determined by the PERAC actuary), and of the state group insurance system (as determined by the GIC);
 - be responsible for the full actuarial value of its liabilities as determined no less often than every 3 years by PERAC and the GIC after consulting A&F, the State Treasurer, and the State Board of Retirement.

At the April 2012 meeting, the Board took several steps in order to comply with the Transparency Act and the emergency regulations: the Board created the Administration, Finance and Audit Committee, as well as the Personnel and Compensation Committee; made adjustments to the sick leave buy back for executives; and made certain minor adjustments to existing employment contracts. At the April 2012, May 2013, May 2014, May 2015, May 2016, May 2017, May 2018, and May 2019 meetings, the Personnel and Compensation Committee met independently of management as required by the regulations. As a result of these actions, MWRA is in compliance with the permanent regulations and Transparency Act. Neither MWRA Board members nor the Administration, Finance and Audit Committee are required to meet independently with respect to the audited financials of the Authority because the statute carves out an exception for state authorities that are otherwise required to retain an outside independent audit firm.

In order to remain in compliance with the statute’s requirements, staff recommend that the Personnel and Compensation Committee meet independently of management at the May 27, 2020 meeting. In order to facilitate the committee's review, analyses of comparable salaries are included with this staff summary.

BUDGET/FISCAL IMPACT:

The passage and implementation of section 29K of Chapter 29 of the Massachusetts General Laws will not have any impact upon either the FY21 CEB or CIP.

ATTACHMENTS:

- Attachment A: Summary of Compensation Data for State Agencies, Authorities, Non-Profit Organizations and Private Companies
- Attachment B: Survey of Comparable National Water/Wastewater Utilities
- Attachment C: American Water Works Association – 2019 Water Utility Survey

Attachment A

Summary of Compensation Data for State Agencies, Authorities, Non-Profit and Private Companies

May 2020

MWRA Position:	Executive Director			
Organization	Sector	Title	Reporting Period	Annual Salary
Eversource Energy	Private Utility	President and CEO	2019	\$1,319,232
Citizens Energy, Inc.	Non-Profit	President and CEO	2017	\$860,440
Boston Foundation, Inc.	Non-Profit	President and CEO	2018	\$573,024
Greater Boston Food Bank, Inc.	Non-Profit	President and CEO	2019	\$381,979
Mass Port Authority	Quasi Public	Chief Executive Officer	2020	\$360,000
City Year, Inc.	Non-Profit	President	2018	\$350,412
MBTA	State	General Manager	2020	\$324,800
Mass Housing Partnership	Quasi Public	Executive Director	2020	\$252,300
Mass Convention Center Authority	Quasi Public	Executive Director	2020	\$252,012
Commonwealth Health Insurance Connector Authority	Quasi Public	Executive Director	2020	\$235,264
Conservation Law Foundation	Non-Profit	President	2018	\$234,762
MWRA	Quasi Public	Executive Director	2020	\$220,000
Boston Harbor Now (formerly Boston Harbor Association)	Non-Profit	President	2018	\$195,192
Commonwealth of Massachusetts	State	Treasurer	2020	\$189,560
Commonwealth of Massachusetts	State	Attorney General	2020	\$185,378
Commonwealth of Massachusetts	State	Governor	2020	\$185,000
Commonwealth of Massachusetts	State	State Auditor	2020	\$178,728
Commonwealth of Massachusetts	State	Secretary of State	2020	\$178,695
MassDOT	State	Secretary and CEO	2020	\$170,406
Mass Department of Revenue	State	Commissioner of Revenue	2020	\$170,000
Save the Harbor/Save the Bay	Non-Profit	President	2018	\$165,392

Attachment A

Summary of Compensation Data for State Agencies, Authorities, Non-Profit and Private Companies

May 2020

MWRA Position:	Chief Operating Officer			
Organization	Sector	Title	Reporting Period	Annual Salary
Eversource Energy	Private Utility	Executive Vice President/Chief Operating Officer	2019	\$692,694
Citizens Energy, Inc.	Non-Profit	Chief Executive Officer	2017	\$582,313
Mass Port Authority	Quasi Public	Director, Capitol Programs & Environmental Affairs	2020	\$325,500
Greater Boston Food Bank, Inc.	Non-Profit	Chief Operating Officer	2019	\$286,345
City Year, Inc.	Non-Profit	Chief Operating Officer	2018	\$273,331
MBTA	State	Deputy General Manager	2020	\$257,556
Mass Housing Partnership	Quasi Public	Managing Director	2020	\$218,000
Commonwealth Health Insurance Connector Authority	Quasi Public	Deputy Executive Director and COO	2020	\$207,815
MWRA	Quasi Public	Chief Operating Officer	2020	\$191,611
Conservation Law Foundation	Non-Profit	Executive VP and Director	2018	\$152,917
Boston Harbor Now (formerly Boston Harbor Association)	Non-Profit	Vice President, Operations	2018	\$108,853
Save the Harbor/Save the Bay	Non-Profit	No Match		
Conservation Law Foundation	Non-Profit	No Match		
Boston Foundation, Inc.	Non-Profit	No Match		

Attachment A

Summary of Compensation Data for State Agencies, Authorities, Non-Profit and Private Companies

May 2020

MWRA Position:	Director, Finance			
Organization	Sector	Title	Reporting Period	Annual Salary
Eversource Energy	Private Utility	Executive Vice President & CFO	2019	\$680,579
Citizens Energy, Inc.	Non-Profit	CFO	2017	\$407,560
Boston Foundation, Inc.	Non-Profit	Chief Financial Officer/Treasurer	2018	\$322,960
Mass Port Authority	Quasi Public	Director, Admin & Finance/Sec-Treasurer	2020	\$311,825
Greater Boston Food Bank, Inc.	Non-Profit	Chief Financial Officer	2019	\$244,778
MBTA	State	Chief Financial Officer	2020	\$217,000
Mass Housing Partnership	Quasi Public	Chief Finance & Admin Officer	2020	\$196,000
City Year, Inc.	Non-Profit	Chief Financial Officer	2018	\$174,311
Mass Convention Center Authority	Quasi Public	Chief Financial Officer	2020	\$173,430
MWRA	Quasi Public	Director, Finance	2020	\$171,433
Commonwealth Health Insurance Connector Authority	Quasi Public	Chief Financial Officer	2020	\$169,793
MassDOT	State	Chief Financial Officer	2020	\$152,966
Conservation Law Foundation	Non-Profit	Vice President, Finance and Admin and CFO	2018	\$130,041
Save the Harbor/Save the Bay	Non-Profit	No Match		
Boston Harbor Now (formerly Boston Harbor Association)	Non-Profit	No Match		

Attachment A

Summary of Compensation Data for State Agencies, Authorities, Non-Profit and Private Companies

May 2020

MWRA Position:	General Counsel			
Organization	Sector	Title	Reporting Period	Annual Salary
Eversource Energy	Private Utility	Executive Vice President and General Counsel	2019	\$643,270
Mass Port Authority	Quasi Public	Chief Legal Counsel	2020	\$255,397
Mass Housing Partnership	Quasi Public	General Counsel	2020	\$190,000
MBTA	State	Chief Counsel	2020	\$185,000
Mass Convention Center Authority	Quasi Public	General Counsel	2020	\$173,430
MWRA	Quasi Public	General Counsel	2020	\$171,433
MassDOT	State	General Counsel	2020	\$170,310
Commonwealth Health Insurance Connector Authority	Quasi Public	General Counsel	2020	\$164,999
Mass Department of Revenue	State	General Counsel	2020	\$163,854
Conservation Law Foundation	Non-Profit	Sr Counsel	2018	\$157,863
Boston Foundation Inc.	Non-Profit	No match		
City Year, Inc.	Non-Profit	No match		
Greater Boston Food Bank Inc.	Non-Profit	No match		
Citizens Energy, Inc.	Non-Profit	No match		
Save the Harbor/Save the Bay	Non-Profit	No match		

Attachment B
 MWRA Survey of Comparable National Water/Wastewater
 Utilities - May 2020

Executive Director										
Organization	Location	Operating Budget	# Employees	Population Served	Title	Base Salary	Car Allowance	Deferred Comp	2019 Bonus	Employment Contract
Fairfax Water	Fairfax, VA	\$192.5 Million	434	2.5 million	General Manager	\$270,000	\$5,048	\$0	15,000 for 2019	No
Metropolitan Water District of Southern California	Los Angeles, CA	\$1.496 billion	1786	19 million	General Manager	\$434,990	District vehicle	\$11,025	\$0	Yes
Washington Suburban Sanitary Commission	Laurel, MD	\$817.4 million	1695	1.8 million	General Manager/CEO	\$294,309	\$12,000	\$25,000	\$11,315	Yes
Seattle Public Utilities	Seattle, WA	873.6 Million	1,279	1.3 million	General Manager/CEO	\$309,984				No
East Bay Municipal Utility District	Oakland, CA	641.8 Million	1,962	1.4 Million	General Manager	\$366,456	District vehicle	\$26,000	\$0	Yes
					Average Salary	\$335,148				
MWRA					MWRA Executive Director	\$220,000	included in salary	\$0	0	Yes
Chief Operating Officer										
Organization	Location	Operating Budget	# Employees	Population Served	Title	Base Salary	Car Allowance	Deferred Comp	2019 Bonus	Employment Contract
Fairfax Water	Fairfax, VA	\$192.5 Million	434	2.5 million	Deputy General Manager	\$235,000	\$5,494	\$0	\$0	No
Metropolitan Water District of Southern California	Los Angeles, CA	\$1.496 billion	1786	19 million	Assistant General Manager/Chief Operating Officer	\$320,778	\$700	\$0	\$0	No
Washington Suburban Sanitary Commission	Laurel, MD	\$817.4 million	1695	1.8 million	Deputy General Manager for Operations	\$229,866	\$8,000	\$0	\$0	Yes
Seattle Public Utilities	Seattle, WA	873.6 Million	1,279	1.3 million	Chief Administration Officer* (vacant) *This is May 2019 salary when position was occupied	\$199,592	\$0	\$0	\$0	No
East Bay Municipal Utility District	Oakland, CA	641.8 Million	1,962	1.4 Million	Director, Operations & Maintenance	\$273,480	\$0	\$0	2% pay increase	No
					Average Salary	\$251,743				
MWRA					MWRA Chief Operating Officer	\$191,611	no	\$0	\$0	No
Director Finance										
Organization	Location	Operating Budget	# Employees	Population Served	Title	Base Salary	Car Allowance	Deferred Comp	2019 Bonus	Employment Contract
Fairfax Water	Fairfax, VA	\$192.5 Million	434	2.5 million	Director, Finance	\$213,240	\$0	\$0	\$0	No
Metropolitan Water District of Southern California	Los Angeles, CA	\$1.496 billion	1786	19 million	Assistant General Manager/Chief Financial Officer	\$295,006	\$700	\$0	\$0	No
Washington Suburban Sanitary Commission	Laurel, MD	\$817.4 million	1695	1.8 million	Chief Financial Officer	\$212,160	\$3,346	\$0	\$0	Yes
Seattle Public Utilities	Seattle, WA	873.6 Million	1,279	1.3 million	Division Director-Finance	\$215,041	\$0	\$0	\$0	No
East Bay Municipal Utility District	Oakland, CA	641.8 Million	1,962	1.4 Million	Director, Finance	\$248,568	\$0	\$0	2% pay increase	No
					Average Salary	\$236,803				
MWRA					MWRA Director, Finance	\$171,433				No

Attachment B
 MWRA Survey of Comparable National Water/Wastewater
 Utilities - May 2020

General Counsel										
Organization	Location	Operating Budget	# Employees	Population Served	Title	Base Salary	Car Allowance	Deferred Comp	2019 Bonus	Employment Contract
Fairfax Water	Fairfax, Virginia	\$192.5 Million	434	2.5 million	No Match					
Metropolitan Water District of Southern California	Los Angeles, CA	\$1.496 billion	1786	19 million	General Counsel	\$325,166	\$700	\$0	\$0	No
Washington Suburban Sanitary Commission	Laurel, MD	\$817.4 million	1695	1.8 million	General Counsel	\$205,000	\$3,000	\$0	\$0	Yes
Seattle Public Utilities	Seattle, WA	873.6 Million	1,279	1.3 million	No Match (uses city legal services)					
East Bay Municipal Utility District	Oakland, Ca	641.8 Million	1,962	1.4 Million	General Counsel	\$308,928	\$0	\$0	\$0	Yes
					Average Salary	\$279,698				
MWRA					MWRA General Counsel	\$171,433				No

Survey Position:	Top Executive			
MWRA Position:	Executive Director			
Survey Scope:	ALL utilities serving a population in excess of 1,000,000			
	# of Utilities	# of Employees	50th Percentile Salary	Average Salary
	27	28	\$217,300	\$236,164
Survey Scope:	All <u>water</u> utilities serving a population in excess of 1,000,000			
	# of Utilities	# of Employees	50th Percentile Salary	Average Salary
	8	8	\$253,134	\$237,451
Survey Scope:	All <u>water/wastewater</u> utilities serving a population in excess of 1,000,000			
	# of Utilities	# of Employees	50th Percentile Salary	Average Salary
	19	20	\$213,400	\$235,649

Survey Position:	Top Operations and Maintenance Executive			
MWRA Position:	Chief Operating Officer			
Survey Scope:	ALL utilities serving a population in excess of 1,000,000			
	# of Utilities	# of Employees	50th Percentile Salary	Average Salary
	24	30	\$169,988	\$173,895
Survey Scope:	All <u>water</u> utilities serving a population in excess of 1,000,000			
	# of Utilities	# of Employees	50th Percentile Salary	Average Salary
	8	7	\$150,708	\$178,014
Survey Scope:	All <u>water/wastewater</u> utilities serving a population in excess of 1,000,000			
	# of Utilities	# of Employees	50th Percentile Salary	Average Salary
	16	23	\$172,494	\$172,641

Survey Position:	Top Finance Executive			
MWRA Position:	Director, Finance			
Survey Scope:	ALL utilities serving a population in excess of 1,000,000			
	# of Utilities	# of Employees	50th Percentile Salary	Average Salary
	20	19	\$163,220	\$175,849
Survey Scope:	All <u>water</u> utilities serving a population in excess of 1,000,000			
	# of Utilities	# of Employees	50th Percentile Salary	Average Salary
	9	8	\$141,059	\$164,911
Survey Scope:	All <u>water/wastewater</u> utilities serving a population in excess of 1,000,000			
	# of Utilities	# of Employees	50th Percentile Salary	Average Salary
	11	11	\$166,820	\$183,804

Survey Position:	Top Legal Executive			
MWRA Position:	General Counsel			
Survey Scope:	ALL utilities serving a population in excess of 1,000,000			
	# of Utilities	# of Employees	50th Percentile Salary	Average Salary
	14	15	\$191,167	\$191,752
Survey Scope:	All <u>water</u> utilities serving a population in excess of 1,000,000			
	# of Utilities	# of Employees	50th Percentile Salary	Average Salary
	5	5	\$216,063	\$201,195
Survey Scope:	All <u>water/wastewater</u> utilities serving a population in excess of 1,000,000			
	# of Utilities	# of Employees	50th Percentile Salary	Average Salary
	9	10	\$181,600	\$187,031

